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# Enabling Heated Tobacco Product Manufacturing in India for Export: Fiscal and Strategic Opportunity

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**Abstract -** Tobacco fields form the base of India's tobacco value chain. Despite this, most value is added overseas when the crop is processed into finished products. Enabling domestic production of heated tobacco sticks for export-only could capture more value in-country, boosting farmer incomes and government revenues while keeping public health safeguards in place.

***Key Words*:** Heated Tobacco Products (HTPs), Export-only Manufacturing, Value Addition, Flue-Cured Virginia (FCV), Tobacco, Farmer Income Uplift, Foreign Direct Investment, (FDI) Reduced-Risk Tobacco, Alternatives, Regulatory Safeguards, Global Tobacco, Supply Chain, Public Health and Trade Balance

## 1.Executive Summary

India has so far missed a decade of value capture in the rapidly growing global heated tobacco segment. While countries like Japan, Italy, and Switzerland capitalized on the shift from cigarettes to reduced-risk alternatives—establishing themselves as global manufacturing hubs—India remained focused on raw tobacco exports with limited value addition.
This policy gap may have cost India an estimated $3–6.5 billion in cumulative export revenues, $1.2–1.6 billion in forgone corporate tax collections, and over $150 million in potential farmer earnings over the past decade.

Yet this opportunity can still be reclaimed. As of 2024, HTPs are legally sold in over 70 countries, and the global market is valued at nearly $50 billion. With one of the world's largest FCV tobacco-growing bases and a mature tobacco manufacturing ecosystem, India is well-positioned to enter this high-value export space through a carefully regulated, export-only HTP manufacturing strategy.
Enabling domestic production of HTPs for export could unlock:

- 20–25× higher export value per kg, by converting $4–5/kg raw leaf into finished products exceeding $100/kg.
- A 2–3× increase in farmer value capture, by raising their share of export value from 2% to 5%.
- 20–30% farmgate price premiums for HTP-suitable FCV tobacco grades.
- Over $1 billion in potential annual export revenues, even under conservative scenarios—with associated tax inflows and rural income benefits.

Crucially, this is also a gateway to high-quality FDI. HTP manufacturing is capital-intensive, technologically sophisticated, and export-market driven. Leading global firms in this space bring advanced manufacturing standards, strong regulatory compliance, and long-term investment horizons. As such, HTPs represent not just more FDI—but better FDI—aligned with India's goals of industrial upgrading, technology transfer, and global competitiveness.
By integrating into the next generation of global tobacco exports, India can move beyond commodity dependence, stabilize auction markets, boost rural incomes, and establish itself as a competitive, technology-driven manufacturing base in the reduced-risk product category.
By doing so, India could create new pathways for farmer income, manufacturing investment, and foreign exchange earnings. And should domestic regulations evolve in the future, India would already be positioned—with technology, quality standards, and capacity in place—to responsibly evaluate and respond to such a shift.
India's rise to the top of the global value-added manufacturing rankings has been fueled by the country's readiness to adopt new technology and attract world-class investment. By opening its doors to export-only HTP manufacturing, India can position itself at the forefront of a high-growth industry, mirroring its success in critical sectors like pharmaceuticals and electronics. This policy will also send a strong signal to international investors that India is committed to fostering innovation, supporting advanced manufacturing, and integrating deeply into global supply chains. The ensuing flood of foreign direct investment will not only create high-quality employment, but will also drive knowledge transfer and skills development across the larger industrial ecosystem. Overall, such a policy shift would set an example that the Government is willing and agile to make interventions to grow the economy and make headways to broaden the growing manufacturing sector.

## 2.Key Findings

*India's Tobacco Economy Context:*
India is the world's 4th largest producer of FCV (Flue-Cured Virginia) tobacco—after China, Brazil, and Zimbabwe—and the 2nd largest exporter by volume (The Hindu, 2023). Over 83,000 farm families cultivate FCV tobacco, and exports of unmanufactured tobacco reached ₹12,005 crore (~$1.45 billion) in 2023–24, up 87% in five years (Press Information Bureau, 2024). Despite this growth, most of the value is realized abroad, with India primarily exporting raw leaf and capturing only 2–3% of the final value of processed tobacco (Ministry of Commerce, 2023)
*Global Market Shift Toward Heated Tobacco Products (HTPs):*As global cigarette consumption declines, the market for Heated Tobacco Products (HTPs) is rising rapidly, driven by adult smokers seeking reduced-risk alternatives. In Japan, cigarette sales have halved over the past decade, coinciding

with the rapid adoption of HTPs (Tobacco Asia, 2024). Japan now leads the world, with HTPs comprising ~42% of the tobacco market and around 15 million users — approximately 14% of Japanese adults. HTPs accounted for 37.9% of tobacco sales in Japan in 2022, with IQOS capturing over 50% of the Tokyo market by January 2023 (Rossel, 2024).
In Europe, Italy is the largest HTP market, valued at $6.5 billion in 2024 with 15% year-on-year growth (Di Lorenzo, 2025). Globally, HTP retail sales are projected to reach $49.14 billion in 2024, with Japan and Italy comprising a major share (Tobacco Reporter, 2024; Grand View Research, 2025). Analysts forecast a 63.2% compound annual growth rate (CAGR) through 2030, reflecting growing consumer preference and increasing regulatory support for reduced-risk products (Grand View Research, 2025).

*Value Addition Potential:* From $5 to $100+/kg
Processing FCV tobacco into HTP sticks results in substantial value addition. While raw FCV leaf sells for ~$3–5 per kg, converting it into finished HTP sticks can yield export value exceeding $100/kg—representing a conservative 20× increase in value (internal analysis; Rossel, 2024; Tobacco Asia, 2024). Currently, the bulk of this value—stemming from branding, processing, and retail profits—accrues overseas. By enabling domestic HTP manufacturing for export, India could capture a significantly greater share of this global value chain, boosting jobs, tax revenues, and farmer demand (Ministry of Commerce, 2023).

*Potential Gains for Farmers:* Farmers currently capture only ~2% of the final export value of FCV tobacco. Export-oriented HTP manufacturing could increase this share to 5% through premium procurement contracts and long-term offtake partnerships — a 2–3× increase in value capture. Additionally, farmers may receive 20–30% higher farmgate prices for HTP-suitable grades, stabilizing incomes, especially during surplus seasons.

*Fiscal Upside Under Conservative Assumptions*:
Even modest export volumes yield notable economic benefits. Exporting 5 billion HTP sticks/year at ₹4 ($0.05) per stick would generate ₹2,000 crore ($1.05 billion) in export revenue. At a 20% profit margin and a 25% corporate tax rate, this implies annual tax receipts of ₹420–1,750 crore (internal analysis; Grand View Research, 2025). These revenues substantially surpass those generated from unprocessed leaf exports.

*Comparative Advantage & Benchmarks:*
India's skilled labor force, strong FCV base, and established tobacco infrastructure (e.g. cigarette factories) position it favorably as a global HTP export hub. Zimbabwe, another major leaf exporter, plans to raise tobacco value addition from 2% to over 30% and is expanding production capacity to over 6 billion cigarette sticks annually (Tobacco Reporter, 2024; Farmonaut, 2024). Brazil, the largest tobacco exporter globally, shipped 455,000 tons of leaf worth $2.9 billion in 2024 alone, with 90% of output exported—yet with limited domestic value addition (Tobacco Reporter, 2025). Meanwhile, Switzerland—despite lacking a local tobacco crop—has become a major cigarette export hub by attracting multinational manufacturing (internal analysis). With its superior resources, India could do likewise for HTPs, especially if targeted policies and export incentives are implemented.

*Global Export Benchmarks: HTPs as High-Value Growth Drivers*
Experiences from Italy, Romania, and Greece demonstrate how HTP manufacturing for export can transform national tobacco and agri-export profiles, even in countries with established export legacies:

- Italy: By 2023, HTP exports from Italy reached €1.87 billion, surpassing the export value of olive oil and accounting for over 20% of the export value of Italian wine. (Access2Markets, 2024).
- Romania: Since 2017, Romania has exported more HTPs than wine—a historically significant export segment. By 2023, HTP exports crossed €2 billion, accounting for half the export value of Romanian wheat, the country's leading agricultural export. This growth is powered by the Otopeni production hub, which enabled a 78% annual growth rate in HTP exports (Access2Markets, 2024).
- Greece: Following the setup of the Papastratos HTP facility, Greece's HTP exports reached €735 million by 2023—surpassing feta cheese exports and equaling 70% of the export value of Greece's largest Agri-export: prepared fruits and nuts (Access2Markets, 2024).

These benchmarks highlight the scale, speed, and diversification potential of enabling HTP exports. India—already a leading leaf exporter with a skilled base and processing ecosystem—can replicate and surpass these trajectories through strategic policy support.
Regulatory Safeguards:
India can authorize HTP manufacturing strictly for export—enforced through bonded units, unique HS codes and Track-&-Trace—without amending its domestic tobacco-control rules.
Yet policy flexibility is critical. More than 70 countries now regulate HTPs; if India later wishes to consider reduced-risk products for its own smokers, an export-only platform will give it ready infrastructure and standards.
Crucially, India's blanket ban on HTP imports is vulnerable under WTO rules (GATT Art. XI) and its FTAs with partners such as the EU. Allowing export-only production—while keeping domestic sales prohibited—would still maintain public-health protection but show good-faith movement toward trade-agreement compliance and reduce the risk of dispute.
Policy Recommendations:
To enable HTP exports, this report proposes a phased policy roadmap:
– Amend existing legislation to allow licensed manufacturing for export.
– Leverage existing export infrastructure - Special Economic Zones or bonded production units for HTPs through licensed third-party manufacturers
– Incentivize joint ventures with global technology holders.
– Create a stable tax regime including corporate taxes and an optional health cess.
– Coordinate across ministries: Commerce (exports), Agriculture (farmers), Finance (revenue), and Health (domestic safeguards) (Ministry of Commerce, 2023; WHO FCTC, 2003, Articles 5.3, 17, 18).

## 3. India's Tobacco Economy and the Case for Value Addition

India has a long-established tobacco economy with deep roots in agriculture, trade, and industry. It is the world's second-largest producer of tobacco (all types) and a major producer of Flue-Cured Virginia (FCV) tobacco—the primary variety used in cigarettes. India produces both cigarette tobaccos and non-cigarette tobaccos (for bidis, chewing, etc.), but FCV grown in Andhra Pradesh and Karnataka remains the main export earner. In recent years, effective crop management and marketing by the Tobacco Board of India have boosted exports and farmer incomes (Press Information Bureau, 2024).

In 2023–24, India's unmanufactured tobacco exports reached a record ₹12,005.9 crore (≈$1.45 billion), up 87 percent from five years prior (PIB, 2024). Export volumes climbed to 315.5 million kg from 218.8 million kg in 2019–20 (Ministry of Commerce, 2023). This solidified India's position as the second-largest tobacco exporter by volume—after Brazil—and underscores the sector's significance as a foreign exchange earner (The Hindu, 2023; Tobacco Reporter, 2025).

Tobacco also plays a crucial role in sustaining rural livelihoods. Approximately 83,000 registered FCV tobacco farmers, primarily located in Andhra Pradesh and Karnataka, rely on this cash crop (PIB, 2024). The sector's growth has translated into higher farm incomes: the average price earned by farmers increased from ₹124/kg in 2019–20 to approximately ₹280/kg in 2023–24, due to robust demand and transparent e-auction mechanisms administered by the Tobacco Board (PIB, 2024). Moreover, tobacco farming and primary processing—including grading and redrying—generate significant employment for agricultural laborers and warehouse workers.

India's domestic cigarette manufacturing industry—led by firms such as ITC, Godfrey Phillips, and VST—contributes substantially to GDP, tax revenues (via excise duties and GST), and formal employment, even though cigarette consumption has been declining under the pressure of public health measures (Tobacco Reporter, 2024).

However, a key limitation of India's tobacco sector is that it exports primarily raw or semi-processed tobacco, rather than high-value consumer products. Over half of India's tobacco export earnings stem from unmanufactured leaf, with FCV alone accounting for around 68 percent of total export value (The Hindu, 2023). Manufactured tobacco exports, such as cigarettes, constitute a small fraction. Consequently, India captures only a limited portion of the final value paid by end consumers abroad. For example, while FCV leaf may sell at approximately $3–5 per kg FOB, once incorporated into HTPs or cigarettes overseas, its final market value can be 10–20 times higher (internal analysis; Rossel, 2024). This "raw material exporter" model allows for high volume throughput but constrains India's ability to realize the benefits of value addition, technological advancement, and enhanced revenue retention.

India's public health policy has so far taken a cautious stance towards novel nicotine products. In 2019, the country enacted the Prohibition of Electronic Cigarettes Act, banning the manufacture, sale, and advertisement of e-cigarettes and related Electronic Nicotine Delivery Systems (ENDS)—including Heated Tobacco Products (HTPs)—on the grounds of protecting youth from addiction (Government of India, 2019). This approach aligns with India's obligations under the WHO Framework Convention on Tobacco Control (WHO FCTC, 2003), particularly Articles 5.3, 17, and 18, which emphasize demand reduction, health protection, and farmer transition strategies.

Yet, while India has opted not to allow domestic HTP consumption, these products are increasingly popular in regulated foreign markets. Japan leads the global HTP market, with HTPs comprising approximately 42 percent of tobacco product sales in 2024 and over 15 million users—about 14 percent of its adult population (Tobacco Asia, 2024; Rossel, 2024). Italy follows as Europe's largest HTP market, valued at $6.5 billion in 2024, with 15 percent year-on-year growth (Di Lorenzo, 2025). Globally, the HTP retail market was estimated at $49.14 billion in 2024 and is projected to grow at a compound annual growth rate of 63.2 percent through 2030 (Grand View Research, 2025).

This global growth trajectory presents India with an economic opportunity: by enabling export-only HTP production, the country could engage in global value chains without compromising domestic public health. India has a precedent for such a model—legal opium cultivation, tightly regulated and designated for export to pharmaceutical industries. Similarly, the HTP model could use India's agricultural and industrial capabilities to manufacture exclusively for legal overseas markets with strict licensing and traceability frameworks in place.

This report argues that establishing export-only HTP manufacturing facilities could yield a "win-win" for India. First, it would diversify and upgrade India's tobacco export profile, shifting emphasis from low-value raw leaf to higher-margin finished goods. This transition would hedge against the long-term decline in global cigarette demand. Second, it would catalyse investment, technology transfer, and potentially R&D into improved cultivation, processing, and electronics manufacturing. Third, it would stabilize rural incomes by creating a new, steady buyer for FCV tobacco, insulating farmers from volatility in the traditional cigarette market. Such a move could sustain the rural economy while preserving India's health-centric approach domestically.

The multiplier effect of value-added HTP production extends far beyond the tobacco industry itself. As India climbs up the

value chain, auxiliary businesses like packaging, shipping, precision engineering, and quality assurance will profit from greater demand and new business prospects. This ecosystem expansion will boost India's export competitiveness, offer major job opportunities, and produce a positive ripple effect in both rural and urban regions. Furthermore, by exploiting its existing agricultural assets and industrial infrastructure, India can accomplish these advantages with minimum additional investment, maximizing profits for both the private sector and the public exchequer.

## 4. Global Trends in Heated Tobacco Product (HTP) Consumption

Heated Tobacco Products have emerged over the past decade as a significant innovation in the tobacco industry, aiming to deliver nicotine to users by heating processed tobacco (usually in stick or capsule form) rather than burning it. The result is an inhalable aerosol with tobacco flavor and nicotine but typically with lower levels of combustion-related toxins – a fact which has been a major selling point to smokers looking for alternatives. HTPs are distinct from e-cigarettes (which vaporize liquid nicotine solutions); HTPs use real tobacco (often reconstituted sheets) and hence are classified as tobacco products. The category is dominated by devices such as IQOS (Philip Morris International), glo (BAT), Ploom (Japan Tobacco), and Lil (KT&G), along with their branded tobacco stick refills (often called HEETS, Neo sticks, etc.).

The adoption of Heated Tobacco Products (HTPs) globally has been rapid in several markets and is now expanding into new regions.

**Japan – the Pioneer Market:**

Japan was the launchpad and remains the most dynamic HTP market globally. Philip Morris International (PMI) introduced IQOS in 2014, and within a decade, HTPs have transformed the tobacco landscape. By 2022, HTPs comprised approximately 37.9% of all tobacco product sales in Japan (Rossel, 2024). In early 2023, HTP unit sales even surpassed cigarettes in Tokyo, reaching a 50.4% share (Rossel, 2024). As of 2024, HTPs are estimated to account for around 42% of Japan's total tobacco market by volume, with nearly 17 million users—about 16.7% of adults (Tobacco Asia, 2024). The market value of HTPs in Japan stands at approximately $10–11 billion (Tobacco Reporter, 2024). This growth occurred despite Japan's continued ban on nicotine e-cigarettes, effectively leaving HTPs as the sole reduced-risk alternative. The Japanese government, which partly owns Japan Tobacco, has benefitted from HTP-related tax revenues, although the products have historically been taxed at lower rates than cigarettes (Rossel, 2024). While growth has plateaued as the market matures, competition has increased with companies cutting prices and releasing new device iterations to maintain consumer interest.

**Europe – Fast Growth in Select Countries:**

In Europe, HTPs were introduced around 2017 and have since experienced significant uptake in certain markets. Italy leads among European Union (EU) countries, with its HTP market valued between $4.5 and $6.5 billion in 2024 and showing recent annual growth rates of 15–17% (Di Lorenzo, 2025; Tobacco Reporter, 2024). As of 2024, an estimated 8–10% of Italian smokers have tried HTPs. Other EU markets witnessing notable adoption include Germany, Poland, Romania, the Czech Republic, and Greece. In Eastern Europe, pre-2022 Russia was one of PMI's largest IQOS markets, while Ukraine and Kazakhstan also reported strong growth before geopolitical disruptions. EU regulators classify HTP sticks as tobacco products—subjecting them to excise duties and health warnings. Recently, the EU adopted measures to ban characterizing flavors in HTPs, akin to existing regulations for cigarettes (Grand View Research, 2025). In the United Kingdom, where e-cigarettes dominate the reduced-risk space, HTP growth has been slower; however, Public Health England has acknowledged that HTPs likely expose users to lower levels of harmful compounds compared to combusted tobacco (PHE, 2018; Grand View Research, 2025).

**East Asia and Other Emerging Markets:**

South Korea followed Japan as an early HTP adopter. Between 2017 and 2019, HTPs gained a 10–15% share of the country's tobacco market, with firms like PMI, BAT, and KT&G competing intensely (Grand View Research, 2025). Taiwan and Malaysia have adopted more restrictive stances—Taiwan banning HTP devices altogether—while Indonesia and the Philippines have begun to see product launches. In the Middle East, IQOS is legally sold in Israel, the UAE, and Qatar, though the latter implemented a ban on HTP sales in 2020. Latin America remains nascent; some countries like Mexico initially permitted IQOS, but regulations remain fluid. In the United States, IQOS was approved by the FDA in 2019 as the first "Modified Risk Tobacco Product" (MRTP) with reduced exposure claims, though a patent dispute has since limited its availability (Grand View Research, 2025).

Despite regional variability, industry analysts predict that by 2030, HTPs could account for double-digit shares of the global tobacco market, even surpassing cigarette consumption in select countries (Tobacco Reporter, 2024; Grand View Research, 2025).

**Market Size and Trajectory:**

As of 2024, the global HTP market is valued between $40 and $50 billion, according to various estimates (Tobacco Reporter, 2024; Grand View Research, 2025). Forecasts project a compound annual growth rate (CAGR) of over 20%, with some studies estimating more than 60% growth depending on market liberalization in major economies such as the U.S.

(Grand View Research, 2025). Even with limited geographic penetration, HTPs already generate roughly one-tenth of the global revenue from cigarettes—underscoring strong demand in the markets where they are legally available (Rossel, 2024).

**Implications for India:**

These global shifts have direct relevance for India. Dozens of high-income countries now permit HTPs, and global tobacco firms are expanding their production capacity to meet surging demand. Currently, HTP stick manufacturing is concentrated in a few countries—PMI manufactures HEETS in Europe (Italy, Greece, Romania), while BAT produces in South Korea and Romania (Di Lorenzo, 2025). India, however, remains absent from this supply chain due to its domestic prohibition of HTPs, which extends to manufacturing.

This stands in stark contrast to the cigarette sector, where India possesses a robust manufacturing base. The absence of HTP production represents a missed opportunity: India, with its large skilled workforce, existing FCV tobacco cultivation, and geographic proximity to Asia and the Middle East, is well-positioned to serve growing demand in these regions. Moreover, many competing leaf-exporting countries, including Brazil, currently prohibit HTP manufacturing, giving India a strategic opportunity to lead in export-oriented production (Tobacco Reporter, 2025).

**Strategic Opportunity:**

HTPs are no longer a niche innovation, they are a mainstream, fast-growing category in the global tobacco landscape. Japan and Italy offer strong proof points of consumer demand and market transformation. For India, this trend signals a structural evolution in the global demand for tobacco leaf. Over time, more leaves will be used in heated formats rather than combusted cigarettes. To retain its leadership in the global tobacco economy, India must adapt by moving up the value chain. Becoming an approved production hub for HTPs—strictly for export—would allow India to maintain its domestic public health stance while capturing substantial value through manufacturing, employment, and export revenue.

## 5. Value Chain Analysis: Raw FCV Leaf Exports vs. HTP Stick Exports

To appreciate the financial opportunity of exporting HTP sticks, it's important to break down the value chain – from farm to finished product – and compare the outcomes under the current scenario (raw leaf export) and the proposed scenario (processed HTP export). This analysis will show how the distribution of value (and stakeholders' share) changes, and why it is beneficial for India to internalize more of the chain.

**1. Current Situation** – Raw Tobacco Leaf Export: Indian FCV tobacco is typically sold by farmers at auction to traders or manufacturers, then processed (threshed, redried) into packed leaf and exported. Let's consider 1 kg of FCV tobacco as a base unit:

Farmer's Share: At ~₹280/kg (2023 average) to the farmer, the farmer gets roughly $3.4 per kg at the farm gate. There are some additional costs for grading, auction fees, etc., so the FOB export price might be a bit higher – say around $4–5 per kg (which aligns with export data: $1.45 billion for ~315 million kg gives ~$4.6/kg).

Indian Players' Earnings: Nearly the entire $4–5 is captured within India (farmers, local traders, and the Tobacco Board cess). However, beyond this, no further value from that tobacco is added in India. Once exported, the leaf is used by cigarettes or HTP manufacturers abroad.

Value in End Product: If that 1 kg of tobacco is used in manufacturing cigarettes or HTPs overseas, its final consumer-level value can be much greater. For example, 1 kg of quality FCV can make about 1,000–1,200 cigarette sticks (assuming ~0.8–1.0 grams per cigarette). At a retail price of say $0.10 per stick, that's $100+ of cigarettes. If used in HTP sticks, which contain less tobacco per stick (~0.3 g each), 1 kg yields ~3,300 sticks. Even at $0.05 per stick ex-factory, that's $165, and at retail perhaps $0.15–0.20, it's $500–$660. None of this added value (beyond the initial $4–5) comes back to India under the raw export model – it is captured by manufacturing companies, workers, and governments in the importing countries.

In short, under the status quo, India earns a few dollars for a kilo of tobacco, whereas foreign entities may earn ten or twenty times that by turning the tobacco into finished products. The farmer's share of the eventual retail price of tobacco products is minuscule (often just 1–3%). This is a classic example of a commodity export vs. value-added export.

**2. Proposed Scenario** – Export of HTP Sticks Made in India: Now imagine India processes that same 1 kg of tobacco into HTP sticks domestically and then exports the sticks.

Conversion and Output: With ~0.3 g of tobacco per stick (typical for PMI's HEETS, for instance), 1 kg yields roughly 3,300 HTP sticks, which is 165 packs of 20.

Export Price and Value: What price could these sticks command? Let's be conservative: assume the exporting company sells them to its overseas distribution arm at ₹4 per stick (around $0.05) – this would be a transfer price of ₹80 per pack, which is likely on the low side (internationally, a pack of HTP sticks retails anywhere from $2.5 in Japan to $5–6 in Europe). Even at this low price, 3,300 sticks would generate ₹13,200 (≈$165) per kg in export value. That is 30-40 times the raw leaf price per kg. If we assume a somewhat higher export price of $0.08 (₹6.5) per stick (still below retail), the value jumps to ~$264 per kg. In practice, the exact transfer

price would depend on internal corporate pricing strategies, but it would certainly be orders of magnitude higher than raw leaf.

Value Distribution: Out of that, the farmer still gets ~$3–4 for providing the raw material (similar as before). But now, Indian manufacturing captures a big portion – this includes factory labor wages, processing costs, packaging materials (some might be imported, e.g. filters or films, but could also be sourced locally), and importantly, corporate profit earned by the manufacturer on these sticks. The Indian entity (be it a local company or local subsidiary of an MNC) would earn a profit margin on the sticks. For example, if production cost (including leaf, materials, labor) is ₹3 per stick and it's sold at ₹4, profit is ₹1 per stick (25% margin). For 3,300 sticks, that profit is ₹3,300 (~$41) per kg. The Indian government then taxes that profit – at 25%, yielding about $10 of tax per kg of tobacco processed in this manner.

Meanwhile, the overseas distributor still adds their margin and local taxes when selling to consumers, but those are outside our scope. The key is that instead of exporting a ₹280 raw product, India is now exporting a ₹13,200 processed product. The difference (~₹12,920) comprises value added in-country (minus any imported inputs). This value added is split among:

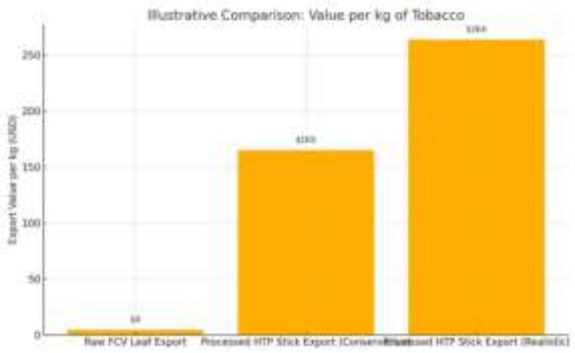
Manufacturing inputs & labor in India – creating jobs and business for suppliers (e.g. paper, filters, packing).

Profits for the manufacturer – which either accrue to an Indian company or, if a foreign company, are at least partly retained/ taxed in India.

Government revenue – through taxes on corporate profits, any GST on inputs (though final export is zero-rated), and possibly through export duties or fees if imposed.

***Farmgate Price and Value Share Uplift***

Introducing domestic HTP manufacturing for export could shift the price dynamics for FCV tobacco in India. As manufacturers demand specific grades suited to heat-not-burn products, farmers may receive 20–30% higher prices—reaching around $4.5/kg (₹336–₹364, assuming $1 = ₹80–82). Currently, farmers capture only about 2% of the final export value (Rossel, 2024), but this could rise to 5% through premium contracts and stable offtake agreements. This shift could translate to a 2–3× increase in value capture, driven not just by volume, but by deeper integration into a higher-value export ecosystem. While the farmer's share in export value could rise from 2% to 5% — the overall export value of processed tobacco also increases dramatically.




An illustrative comparison underscores this value potential. While raw FCV tobacco fetches $4–5/kg in global markets (Tobacco Reporter, 2023), once processed into HTP sticks, it can generate over $100/kg—even under conservative assumptions (internal analysis; Rossel, 2024). This 20–25× uplift reflects the added value of branding, proprietary technology, and consumer packaging.

The difference is not just arithmetic—it is structural. Raw tobacco is traded largely as a commodity, with prices determined by weight and grade. In contrast, processed HTP sticks are marketed as branded consumer goods, allowing for margin capture across multiple layers: manufacturing, technology integration, device ecosystems, and international retail. By transitioning from bulk raw exports to refined products, India can move up the global value chain—transforming commodity revenues into high-value manufacturing returns.

Even if only a fraction of India's FCV output were redirected toward HTP production, the resulting export revenue could match or surpass that of current unprocessed leaf exports, which stood at approximately ₹12,005 crore (~$1.45 billion) in 2023–24 (PIB, 2024). Moreover, such a transition would insulate India's tobacco economy from declining global demand for combustible cigarettes by repositioning it within the rapidly growing HTP segment—projected to reach $49.14 billion globally in 2024 and grow at a 63.2% CAGR through 2030 (Grand View Research, 2025).

Moreover, stable domestic demand from HTP factories could help sustain elevated auction prices, particularly during surplus years. This would reduce the risk of price crashes that often follow oversupply—thus providing farmers with both greater income and more predictable returns (PIB, 2024).

*Economics for Stakeholders:*

•Farmers: In the short term, Indian farmers would continue to sell FCV tobacco through the existing auction system, but the buyer profile could shift — from international leaf merchants to domestic HTP manufacturers sourcing for export. While farmgate prices will likely remain linked to global FCV demand (Press Information Bureau, 2024), domestic HTP production could introduce price premiums for specific leaf

characteristics, such as low-nicotine, bright-colored grades suited for heat sticks (Tobacco Reporter, 2024).

Even if price levels remain stable, the entry of a new, large-scale buyer — domestic HTP factories — could increase competitive pressure in auctions, helping to sustain or elevate prices, especially during surplus years. Over the medium term, farmers may benefit from forward contracts, price guarantees, or long-term procurement partnerships, offering more predictable income in a traditionally volatile crop segment.

With consistent demand for HTP-suitable grades, farmers could realize 20–30% higher average prices. Additionally, their share of the final export value — currently just 1.5–2% — could rise to 5% through premium contracts and value-linked offtake arrangements. This would not only uplift farm gate prices but also structurally strengthen farmers' position in the tobacco value chain by enabling more stable, market-driven, and premium-aligned income streams.

- Manufacturing Sector: Facilitating HTP stick production would give rise to a completely new segment within India's tobacco manufacturing ecosystem. Existing cigarette factories could be upgraded or retrofitted for HTP stick production, as processes such as tobacco blending, sheet formation, rod making, and packing share similarities, albeit with modified equipment for filter rods and aerosol-generating elements (Rossel, 2024). New greenfield manufacturing units may also emerge, requiring skilled labor such as machine operators, quality control technicians, and packaging personnel. Depending on the scale, each facility could create hundreds of jobs. Capital investment would be substantial, especially in high-speed manufacturing equipment, although ongoing maintenance and operational roles would be filled locally. Over time, backward linkages may develop into ancillary industries, including printed packaging, flavor capsules, and specialized paper or filtration components (Grand View Research, 2025).
- Government: Shifting more of the tobacco value chain into the domestic economy would yield multiple tax streams for the government. Corporate income taxes would apply to profits from domestic manufacturers; input taxes under the GST regime would generate credit or refunds (as exports are zero-rated), and customs duties may be collected on imported inputs unless waived under Export-Oriented Unit (EOU) schemes (Ministry of Commerce, 2023). The government could also consider levying a modest excise or export duty on HTP sticks—such as a ₹0.10 per stick health cess—to support public health programs like the National Tobacco Control Programme (NTCP). At a production volume of 10 billion sticks annually, such a levy would generate ₹1,000 crore (~$125 million) in dedicated revenues (internal analysis). This makes HTP exports not only a manufacturing opportunity but also a strategic fiscal level.
- Public Health Perspective: India's current policy, which prohibits the domestic use of HTPs, remains unchanged. However, global regulatory trends indicate a potential shift in how such products are assessed and integrated into public health frameworks. Enabling HTP manufacturing for export allows India to remain aligned with international trade norms, support its farmers and manufacturing ecosystem, and build regulatory readiness. India can responsibly participate in a segment of the global tobacco trade that is increasingly oriented toward non-combustible products.

Several countries—including Japan and members of the EU—have seen a decline in cigarette use as adult smokers transition to alternatives like HTPs. Public Health England, for instance, has noted that HTPs may expose users to lower levels of harmful compounds compared to combusted tobacco.

In essence, moving from raw leaf exports to HTP manufacturing for export allows India to shift from being a price-taker—selling low-value agricultural commodity—to potentially becoming a price-maker for a branded, processed consumer good (Rossel, 2024; Di Lorenzo, 2025). The shift enables India to capture a greater share of the consumer rupee or dollar spent on tobacco globally.

There are, of course, implementation challenges. These include acquiring proprietary technology, ensuring high product quality standards to meet international regulations, and compliance with diverse tobacco control laws in destination markets (Grand View Research, 2025). But precedent exists countries like Switzerland and the UAE—despite producing negligible tobacco domestically—import raw leaf and export high-value cigarettes in large volumes, demonstrating that it is viable to flip the value chain (Tobacco Reporter, 2024). India could do the same with its own FCV tobacco, becoming a global production hub for HTPs without permitting domestic use.

Before proceeding to financial projections, the next section provides modeled volume and pricing scenarios for HTP exports from India, offering conservative and optimistic estimates of the associated revenues for each stakeholder group.

***Volume and Pricing Assumptions: Conservative and Realistic Scenarios***

Any projection of fiscal benefits will depend on how much volume of HTP sticks India can produce and export, and at what price. This section lays out two scenarios – one conservative (limited scale, cautious pricing) and one realistic/optimistic (larger scale ramp-up) – to illustrate the range of outcomes. These are not forecasts but plausible illustrations based on industry data and global demand trends.

**Conservative Scenario**: Assume that over the next 3–5 years, India attracts investment for a couple of HTP production lines as a pilot, reaching an export volume of 5 billion sticks per year. For context, 5 billion sticks is a small fraction of global HTP consumption (Japan alone consumed ~59 billion HTP

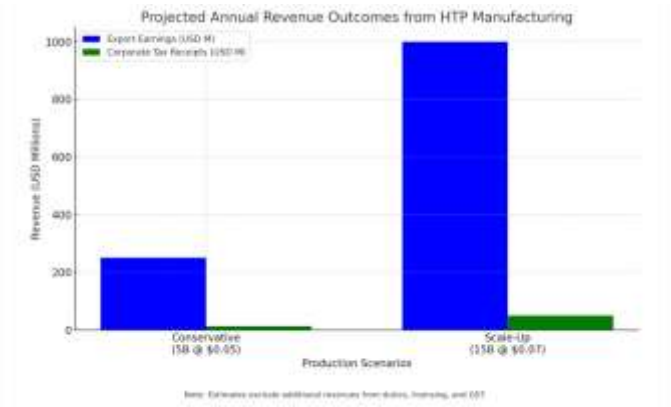
units in 2022, and Italy ~20 billion+). This scenario could represent one mid-sized factory's output. We further assume a low export unit price of $0.05 per stick (approximately ₹4). This low-price builds in room for the parent company to take additional margin in distribution and acknowledges initial higher costs or incentives to price competitively.

- Annual export value: 5 billion × $0.05 = $250 million (roughly ₹2,000 crore).
- Tobacco required: At 3.3 sticks per gram, 5 billion sticks need ~1,515 tons of FCV leaf (1.515 million kg). This is less than 1% of India's annual FCV production – a negligible diversion in terms of agricultural output, easily met without impacting raw export commitments.
- Farmer earnings from this leaf: 1.515 million kg at ₹280 = about ₹424 million (₹42.4 crore) to farmers (roughly $5.25 million). This is a relatively small amount of the total farm revenues from tobacco, but not trivial – it could be concentrated in certain regions or qualities.
- Manufacturing costs & profit: If production cost is say, $0.04 per stick (including everything) and profit $0.01, the annual profit = $50 million (₹400 crore). The government's 25% corporate tax on that yields $12.5 million (₹100 crore) per year in revenue. If companies operate in EOUs with tax holidays initially, the tax might start accruing after a few years, but for the purpose of eventual steady state we consider full taxation.
- GST and other taxes: Exports are zero-rated under GST, so there is no output GST. Input GST on equipment or materials would likely be refunded. So, GST contribution is minor. However, local state GST could apply to things like electricity use or local purchases, contributing a bit to state revenues indirectly. The government could also institute a minimal export duty (for instance 5%) on HTP sticks for revenue – 5% of $250m is $12.5m, but this might make Indian exports less competitive, so it's a policy lever to consider carefully.

**Realistic Scenario:** Now assume India scales up to be a significant HTP production hub, say within 5–7 years. Multiple players (or one large player) set up facilities and India captures a notable share of global supply. We assume 15 billion sticks per year are produced for export (this could be, for instance, 3 factories making 5 billion each, or one large complex feeding multiple markets). We also assume a slightly higher average export price of $0.07 per stick (₹5.6), reflecting perhaps higher value products or better pricing once India is established. This scenario is still only perhaps ~5% of a projected 300 billion+ global HTP market by 2030, so it's not dominant but a fair participation.

- Annual export value: 15 billion × $0.07 = $1.05 billion (~₹8,400 crore).
- Tobacco required: ~4,545 tons of leaf (4.545 million kg). This is around 1.4% of current production – still quite manageable. It could be drawn from incremental production increases or reallocated from slightly lower raw exports.
- Farmer earnings from this leaf: 4.545 M kg at ₹280 = ₹1,272.6 million (₹127.3 crore) to farmers (~$15.75 million). While modest relative to overall farm income, this concentrated demand could help sustain prices in case of any global leaf oversupply, thereby indirectly benefiting the broader farmer base.
- Manufacturing profit: If profit per stick is $0.015 (assuming cost $0.055), total profit = $225 million (₹1,800 crore). At 25% tax, corporate tax = $56 million (₹450 crore) annually to the government. Even if profits are somewhat lower, the tax contribution would be in the hundreds of crores. If an export duty of, say, 2% was levied, that would generate an additional ₹168 crore.
- Employment: 15 billion sticks might directly employ on the order of 1,000–1,500 workers (if we extrapolate from known output per worker metrics in cigarette factories). Indirectly, jobs in logistics, maintenance, etc., also form.

To summarize these scenarios, we provide a comparative table:




(Note: 1 Cr = 10 million Rupees. Figures are illustrative; actual outcomes will depend on investment realization and pricing strategies.)

Several insights emerge from this comparison:

- Even the conservative scenario yields a sizable export business (~$250M/year), which itself is nearly 30% of India's current raw tobacco export value (which is ~$846M in 2021-22). The realistic scenario surpasses current raw exports.
- The government's tax take in the realistic case (₹400+ Cr) would be significant. For perspective, ₹400 Cr could fund approximately one-third of the Ministry of Health's entire tobacco control budget over 5 years, or be invested in farmer diversification programs, etc. This is new revenue without taxing domestic consumers.
- The farmer share of the final value remains relatively small (about 2% in these calcs), but the absolute money to farmers is not insignificant. More importantly, farmers benefit from assured offtake. If global cigarette demand stagnates but HTP demand rises, having Indian HTP factories means farmers can sell the same or more volume even if some

traditional cigarette customers (like some countries) cut imports. It "future-proofs" the farmer earnings to an extent.

- The volume of leaf required for even ambitious HTP export targets is a small fraction of India's crop, meaning the policy can be implemented without diverting too much from existing customers. India can continue to serve its cigarette-manufacturing clients with most of its leaf while allocating a portion to value-added use.
- Foreign Exchange Impact: The net foreign exchange earnings from HTP exports would be high. While there may be some import of specialized inputs (e.g. filter mouthpieces, certain flavors, or capital equipment initially), the value of exports far exceeds those. India could reduce imports of some cigarette sticks (if any) as well. So net FX gain could be close to the gross export value.
- Pricing Competitiveness: The assumed $0.05–$0.07 export price per stick is competitive. Currently, the cost of production in Europe or elsewhere plus shipping to markets is likely to result in similar or higher costs. With India's lower labor costs and domestic leaf supply (no import duty on leaf needed), Indian-made sticks could be cheaper to produce. This opens the door for India to potentially become a cost-competitive exporter, possibly allowing the parent companies to either improve margins or reduce prices in-market to gain share. As long as quality and reliability match other factories, there is no inherent barrier to Indian products.

**Projected annual revenue outcomes under two scenarios.:** The blue bars show export earnings (in USD millions) and the green bars show Indian government tax receipts from corporate taxes, in a conservative case (5 billion sticks at $0.05 each) versus a realistic scale-up (15 billion sticks at $0.07). Even modest production could generate around $250 M in exports, while a larger program could exceed $1 B. Government tax income rises from roughly $12.5 M to over $50 M between these scenarios. These estimates exclude any additional duties or fees. The analysis demonstrates that significant fiscal gains are achievable even at a fraction of global HTP market volumes.

The actual trajectory will depend on investor interest and how quickly India can establish itself as a reliable production base. It's likely prudent to start small (pilot phase) – e.g., authorize one or two facilities, perhaps as joint ventures between an Indian tobacco company and an international HTP firm – and then scale up based on success. The conservative scenario could correspond to that pilot stage, and the optimistic scenario to a mature stage after, say, 5–10 years.

## 6. Licensing, R&D, and Capital Investment Considerations

Implementing an export-only Heated Tobacco Product (HTP) manufacturing initiative requires careful regulatory structuring, R&D facilitation, and investment promotion. This section explores how India could structure a compliant, scalable, and attractive ecosystem for global HTP production.

**Licensing Framework**

Currently, cigarette manufacturing in India is governed by industrial licensing, albeit de-licensed for most sectors since the 1990s. Cigarette production is still subject to Excise regulations and labeling mandates, especially for domestic sale. The Prohibition of Electronic Cigarettes Act (2019) banned the manufacture, sale, and import of e-cigarettes and HTPs across India. Therefore, enabling export-only HTP production would require:

- An explicit exemption under the 2019 Act, permitting manufacturing strictly for export (Government of India, 2019).
- Alternately, bonded manufacturing under Customs and Excise provisions, treating HTPs like other restricted items allowed for export from Export Oriented Units (EOUs) (Ministry of Commerce, 2023).
- Operating only in EOUs, where customs controls can ensure no diversion to domestic markets (Grand View Research, 2025).

**Licensing conditions could include:**

- Mandatory 100% export with zero tolerance for domestic sales.
- Monthly audits and electronic surveillance of output.
- Track-and-trace codes on every stick or pack (in line with the WHO Protocol on Illicit Trade in Tobacco Products).
- A performance bond or financial guarantee to deter non-compliance.

Such a framework would signal a clear, enforceable policy while preserving India's public health commitments (WHO FCTC, 2003).

**R&D and Technology Transfer**

HTP production involves complex tobacco engineering beyond traditional cigarettes:

- Leaf is processed into reconstituted tobacco sheets, often infused with glycerin for aerosol generation. These processes are patented and likely require technology transfer agreements or joint ventures (Rossel, 2024; Grand View Research, 2025).
- Devices are proprietary electronic systems and might remain manufactured overseas, but India could focus on consumables (sticks).
- Quality assurance is critical—moisture levels, tobacco mass, and aerosol chemistry must meet device standards. This demands investment in precision testing laboratories and trained personnel (Tobacco Asia, 2024).

Over time, Indian firms may develop their own devices (e.g., ITC launching an Indian-made HTP platform). Until then, technology partnerships are key—perhaps incentivized through tax breaks on royalties or co-development models.

India's CSIR labs and tobacco research stations could play a role in developing domestic HTP-grade tobacco varieties tailored for heat response, flavor, and nicotine content.

The creation of a Center of Excellence for HTP Research and Manufacturing could consolidate these efforts and encourage industry-academia collaboration.

**Capital Investment Needs**

HTP stick production shares similarities with cigarette manufacturing but includes specialized machinery:

- Primary processing units to create reconstituted tobacco sheets, using band-cast or extrusion machines, costing millions per line.
- Secondary processing lines for rod formation, filter attachment, and tipping. Machinery makers like GD and Hauni now supply HTP-specific lines (Rossel, 2024).
- High-speed packaging machines, adapted for stick packs and international labeling.
- Precision environment controls, automated scanners, and laboratory-grade QA setups are essential to meet international standards.

Establishing a plant with ~5 billion stick annual capacity could require $50–100 million in capital expenditure (internal estimate; Grand View Research, 2025). The government could support this through:

- Fast-track EOU approvals, land access, and utility provisioning.
- Duty-free machinery imports, tied to export obligations.
- Stable long-term export policy, to protect investor confidence.

**FDI Facilitation and Role**

A clear and investor-friendly FDI policy is central to building an internationally competitive HTP export industry. At present, FDI in tobacco manufacturing is routed through government approval, which creates ambiguity and delays. To attract leading global players—particularly those with proprietary HTP technologies—India should allow 100% FDI in entities manufacturing HTPs solely for export, under the automatic route.

This clarity will provide assurance to multinationals seeking to set up capital-intensive facilities, transfer manufacturing technology, and source Indian tobacco for their global value chains. India can establish conditions such as export-only operations, track-and-trace compliance, and annual performance reporting to safeguard public health and revenue interests. As seen in sectors like electronics and pharmaceuticals, enabling FDI can rapidly scale domestic capability and integrate India into global supply networks.

A clear, investor-friendly legislative framework for export-only HTP production will distinguish India from other jurisdictions. By offering regulatory clarity, faster approvals, and strong protections, India may attract top global corporations looking to diversify their production sites. This strategy not only strengthens India's reputation as a dependable partner in international commerce, but it also assures that the country receives a larger portion of the earnings, intellectual property, and technical developments connected with next-generation tobacco products. In a fast-expanding global industry, first-mover advantage is critical—and India is well positioned to capture it.

A formal notification clarifying that HTP manufacturing for 100% export is outside the scope of domestic tobacco control restrictions—would send a strong signal of policy stability and openness.

**Role of Indian and Foreign Companies**

A joint venture model is promising. Indian firms bring operational expertise, while foreign companies offer technology and market access. For example:

- ITC–BAT could produce Glo Neo sticks in India for export to Asia or Europe.
- Godfrey Phillips–PMI could manufacture HEETS domestically for global PMI markets (Di Lorenzo, 2025).
- Other Asian players may also explore India as an export base given India's preferential trade access to Africa and parts of Asia. The government should vet participants to ensure only FCTC-compliant, reputable firms are licensed.

**Employment and Skill Development**

Modern HTP lines require highly skilled technicians, line managers, and quality controllers. India's existing tobacco labor pool, trained in cigarette manufacturing, can be cross-trained. A dedicated Skill India program for HTP manufacturing could upskill youth in equipment handling, lab analytics, and precision control—providing jobs and improving productivity.

**Ancillary and Downstream Opportunities**

With a robust manufacturing base, a range of ancillary industries could emerge:

- Filter tips, printed cartons, and packaging suppliers.
- Third-party QA and regulatory labs, certifying emissions for global compliance (e.g., EU Tobacco Products Directive).
- Design and branding services for multilingual packs customized per export destination.
- India could position itself as a regional QA hub for HTP regulation, reducing dependency on labs in Europe.

**Regulatory Coordination with Import Markets**

India must align manufacturing and labeling to importing countries' regulations. For example:

- EU Tobacco Products Directive (TPD) mandates specific health warnings and caps on nicotine delivery.
- Japan and Korea may have device-specific performance standards for sticks.

Manufacturers will handle technical compliance, but Indian regulators must enable flexible packaging laws for export and ensure labs can test to these foreign standards (Grand View Research, 2025).

**Summary**

With an export-only license, bonded manufacturing, and tight controls, India can enable global HTP production without contradicting domestic public health policy. The private sector can lead investment and operations; the government's role is to permit, regulate, and facilitate. As seen in the pharmaceutical, auto components, and electronics sectors, India has succeeded in becoming a global manufacturing hub when policy support aligned with industry needs.

The next section will examine international benchmarks—Zimbabwe, Brazil, and Switzerland—to highlight how different countries have tried to add value to tobacco exports or become manufacturing hubs without domestic cultivation.

## 7. International Benchmarks: Zimbabwe, Brazil, and Switzerland

Learning from how other countries manage their tobacco economies offers practical insights into India's aspiration to manufacture Heated Tobacco Products (HTPs) exclusively for export. This section examines three illustrative case studies—Zimbabwe, Brazil, and Switzerland—and highlights supporting examples from other countries.

**Zimbabwe: From Raw Leaf to Product Manufacturing**

Zimbabwe is the world's sixth-largest tobacco producer and remains heavily reliant on leaf exports, particularly to China. Historically a raw tobacco exporter, the Zimbabwean government has prioritized value addition in recent years, aiming to process at least 30% of its tobacco locally—up from a mere 2% just a few years ago (Farmonaut, 2024). This shift includes building cigarette and cut-rag tobacco manufacturing capacity. Today, Zimbabwe hosts seven cigarette factories producing around 5 billion sticks annually, with another facility under construction expected to increase capacity by 50% (Tobacco Reporter, 2024).

This transformation is driven by a desire to capture more export revenue and reduce dependency on volatile leaf prices. Between 2022 and 2023, the value of domestically purchased tobacco rose from $650 million to $897 million (Farmonaut, 2024). The government facilitated this by requiring foreign buyers to invest in local manufacturing and offering tax incentives. Despite a limited industrial base, Zimbabwe demonstrates that political will and targeted policy can elevate a commodity-exporting sector toward value-added exports.

India's takeaway: If a smaller economy like Zimbabwe can aim to process 30% of its crop, India—with its more advanced manufacturing ecosystem—can feasibly target even 5–10% of FCV output for HTP production in the initial phase. Zimbabwe's current capacity of 5–7 billion sticks offer a useful benchmark for India's own goal of 10–15 billion sticks in its optimistic scenario.

**Brazil: The Efficient Exporter of Raw Leaf**

Brazil is the world's top tobacco exporter by volume, shipping 455,000 tons of unmanufactured tobacco worth $2.9 billion in 2024 (Tobacco Reporter, 2025). Brazil's integrated farming systems and high-quality FCV output have secured long-standing demand from global buyers. However, over 90% of Brazil's production is exported as raw leaf, and the country has not developed a large cigarette or HTP manufacturing export industry—partly due to strict public health regulations that restrict product promotion and flavored tobacco (Grand View Research, 2025).

While Brazil has outperformed India in volume and revenue, it has not transitioned up the value chain. India, by contrast, has the opportunity to differentiate itself through value-added exports. If India succeeds in exporting even $1 billion worth of HTPs, it could begin closing the export value gap with Brazil, despite producing less tobacco.

India's opportunity lies in doing what Brazil has not: moving from commodity exports to processed product exports, especially as global demand for reduced-risk products rises and traditional cigarette demand declines.

**Switzerland: A High-Value Export Hub Without Leaf**

Switzerland offers a unique contrast. It grows virtually no tobacco, yet ranks among the world's leading cigarette exporters. Multinational corporations like Philip Morris International (PMI) have major production and R&D facilities in the country—including the Cube R&D center in Neuchâtel dedicated to next-generation tobacco products such as HTPs (Tobacco Reporter, 2024).

Swiss factories produce tens of billions of sticks annually, mostly for export to Africa, the Middle East, and Europe. The country benefits from stable regulation, trade-friendly policies, and low production taxes—making it a global hub despite lacking domestic leaf (Di Lorenzo, 2025). Swiss cigarette exports are among the highest per capita in the world, and the country's regulatory clarity and infrastructure have attracted long-term investments from global firms.

India's insight: You don't need to be a grower to lead in manufacturing exports. If Switzerland can become an export giant without leaf, India—with its abundant FCV supply, skilled labor, and competitive cost base—has all the more reason to succeed. Switzerland also demonstrates the value of policy predictability and investor trust, which India must emulate.

**Other Notable Comparisons**

•European Union (Poland, Romania): Poland is the EU's largest cigarette manufacturer, exporting across the continent. Romania hosts PMI's HTP production facilities. These countries benefit from regional trade integration, which India lacks, but India could pursue similar access via bilateral or regional FTAs, especially in the Middle East and North Africa (MENA).

- *United Arab Emirates*: The UAE—particularly Jebel Ali Free Zone—has become a regional cigarette manufacturing hub. It offers tax-free zones and minimal regulatory barriers, attracting firms that export to Africa and the Gulf. While India should maintain stricter regulatory standards, the UAE shows that ease of doing business plays a major role in investment location decisions.
- *Indonesia:* A major tobacco producer focused on clove cigarettes; Indonesia hasn't entered HTP manufacturing yet. But if it does, its low costs and high domestic demand could make it a future competitor. This gives India a first-mover advantage to build capacity and supply chains for HTPs now.

**Key Lessons for India**

Set Targets for Value Addition: Like Zimbabwe, India should establish clear targets—e.g., processing 5% of FCV crop into HTP sticks by 2027—to kickstart value-chain upgrading.

Offer Policy Stability and Incentives: India must replicate Switzerland's stable investment climate, offering low export duties, land in EOUs, and duty-free machinery imports to attract global firms.

Capture Missed Opportunity Left by Brazil: Brazil has not moved into HTP production despite being the world's largest exporter. India can fill that gap, particularly if global demand shifts toward reduced-risk products.

Maintain High Standards and Oversight: To avoid reputational risks, India should implement strict track-and-trace, quality checks, and WHO FCTC-aligned compliance mechanisms, emulating Switzerland's quality-oriented export model.

## 8. Regulatory Safeguards and Public Health Considerations (Export-Only Framework)

### 8.1. India's Dual Imperatives

India's approach to tobacco policy reflects a dual mandate—protecting public health while supporting a large agrarian and industrial base tied to tobacco cultivation and exports. The proposal to enable the manufacture of Heated Tobacco Products (HTPs) for export offers a calibrated opportunity to integrate into a high-value global value chain without altering domestic tobacco control policy.

This section outlines how such a policy can be operationalized under a secure, export-only framework, while remaining compatible with India's health regulations, international commitments, and long-term strategic interests.

### 8.2. Legal and Regulatory Framework for Export-Only Authorization

Under the current legal framework—specifically, the Prohibition of Electronic Cigarettes Act (2019)—the manufacture, sale, and import of electronic nicotine delivery systems (ENDS), including HTPs, is prohibited within India. However, this ban applies to domestic commercial use, not to production for export. India has precedent for export-specific manufacturing regimes in sensitive sectors (e.g., narcotic alkaloids, specialized chemicals, and defense components).

Export-only HTP manufacturing can be enabled through:

- Bonded production facilities, with 100% export obligations enforced via Customs authorities.
- Targeted policy notification or legislative amendment to create an exemption for export-only production under license.
- Licensing conditions include monthly audits, production logs, and export documentation compliance.

This approach ensures that the domestic prohibition remains intact while leveraging India's industrial capabilities for legal global markets.

### 8.3. Preventing Domestic Diversion: Compliance and Enforcement Measures

Maintaining the integrity of India's public health policy requires airtight safeguards to prevent any domestic leakage of HTPs. The following mechanisms are proposed:

- Track-and-Trace Systems: Unique identifiers (QR codes or encrypted alphanumeric codes) on every pack, traceable through a central registry integrated with Customs (ICEGATE).
- Export-Only Labeling: Mandatory "For Export Only – Not for Sale in India" markings in prominent fonts and, optionally, destination-language health warnings
- Customs-Sealed Shipments: All finished goods move from bonded warehouses to ports under seal, monitored electronically.

- Manufacturer Accountability: Strict penalties, including financial penalties and license suspension or cancellation for any diversion into the Indian market.
- Digital Surveillance & Audit Trail: Use of production-line scanners and output logs to ensure reconciliation between input material and export quantities.
- Environmental and Safety Regulations: The manufacturing process involves use of propylene glycol, glycerin, and generates industrial waste similar to a cigarette factory. India should ensure these factories comply with environmental norms. Also, worker safety (exposure to nicotine dust, etc.) should be monitored – these are standard occupational health aspects that Indian factories already manage, but new facilities should adopt best practices. This aligns with overall responsible manufacturing.

These controls mirror successful models used in pharmaceutical and defense sectors and can be administered by the Department of Revenue in coordination with the Directorate General of Foreign Trade (DGFT).

### 8.4. Differentiating HTPs from E-Cigarettes: Regulatory and Market Distinctions

A key consideration in enabling export-oriented manufacturing is distinguishing HTPs from electronic cigarettes (vapes). While both are non-combustible alternatives to conventional smoking, they differ significantly in composition, regulation, and consumer usage.

India's ban on e-cigarettes reflects valid concerns about youth usage and product marketing. HTPs, by contrast, are designed for existing adult smokers and are tobacco-regulated, not consumer electronics. Most advanced economies have applied differentiated regulatory frameworks accordingly.

The proposed policy maintains India's domestic ban across both categories while recognizing that HTPs are legal and regulated products in over 70 countries. The policy thus focuses on regulated export, not domestic liberalization.

### 8.5. International Trade and Regulatory Alignment

An export-only HTP manufacturing policy strengthens India's position in international trade negotiations and compliance:

- WTO Consistency: India's current ban on HTP import and manufacture may raise questions under GATT Article XI and certain FTAs. Authorizing export-only production shows movement toward good-faith trade practices without compromising domestic health prerogatives.
- FCTC Alignment: The WHO Framework Convention on Tobacco Control (FCTC) does not prohibit tobacco exports. Articles 17 and 18 encourage support for farmers and sustainable alternatives. Export-led modernization of India's tobacco sector aligns with these principles if paired with proper controls and transparency under Article 5.3.
- Customs and Excise Coordination: Export-only licensing can be administered under existing EOU, or bonded warehouse rules, in line with India's duty remission and industrial policy frameworks.
- Health Cess Utilization: If the government levies an export cess or collects additional corporate taxes from this sector, a portion could be earmarked for tobacco control and health programs in India. For example, allocate X% of the revenue to the National Tobacco Control Programme (NTCP) or for cancer hospitals, or for farmer crop diversification schemes. This creates a positive loop where the economic gains from tobacco exports feed into mitigating the harms of tobacco domestically.

| Feature | E-Cigarettes (ENDS) | Heated Tobacco Products (HTPs) |
|---|---|---|
| Core substance | Nicotine-infused liquids | Reconstituted tobacco sticks |
| Regulatory classification | Nicotine delivery device | Tobacco product |
| Youth usage concern | High in many markets | Lower incidence in regulated markets |
| Product appeal | Flavored, customizable, tech-driven | Often positioned as cigarette substitutes |
| Global status | Heavily scrutinized | Gaining acceptance in many OECD countries |

### 8.6. Strategic Optionality: Preparing for Global and Domestic Evolution

Internationally, the tobacco industry is undergoing structural change. Cigarette sales are declining in several high-income countries, while non-combustible alternatives—including HTPs—gain share, often supported by regulators and public health institutions seeking reduced exposure risk for adult smokers.

India may choose, at a future point, to revisit its own policy framework based on emerging evidence and international experience. By building export-grade production capacity today, India ensures:

- Readiness for regulatory evolution, without delay or uncertainty.
- Availability of tested quality systems, traceability, and compliance infrastructure.
- Preservation of domestic control, even as global demand shifts.

This is not a policy reversal—it is a future-compatible investment in institutional capability.

### 8.7. Oversight and Inter-Ministerial Coordination

Implementation of an export-only HTP policy will require coordination across key ministries:

- Ministry of Commerce & Industry: Licensing and EOU facilitation
- Ministry of Health & Family Welfare: Policy framing and safeguards
- Ministry of Finance (Revenue): Customs enforcement and taxation
- Ministry of Agriculture & Tobacco Board: Farmer alignment and leaf supply
- DGFT & DRI: Export oversight and anti-diversion enforcement

A dedicated task force may be constituted to oversee implementation, monitor compliance, and coordinate investor engagement, with regular reporting to an inter-ministerial review mechanism.

**8.8. Conclusion: Strategic Integration, Not Policy Dilution**

Enabling HTP manufacturing for export offers India an opportunity to upgrade its position in the global tobacco value chain, support farmer incomes, attract manufacturing investment, and increase foreign exchange earnings—all without altering its domestic regulatory posture.

With robust safeguards, regulatory transparency, and inter-agency coordination, this policy can deliver material economic gains while preserving India's public health commitments. It positions India as a globally competitive, responsible, and forward-ready manufacturing base, capable of meeting the standards of regulated international markets and adapting to a changing global tobacco landscape.

Finally, permitting HTP manufacture for export is more than an economic opportunity; it is a strategic need for India's long-term prosperity and global significance. By using a realistic, forward-thinking approach, India can provide substantial advantages to its farmers, industry, and workers while adhering to its public health objectives. This strategy demonstrates how a balanced, pro-corporate approach can create national prosperity, stimulate innovation, and position India as a leader in tomorrow's sectors. The moment to act is now to ensure that India's economic objectives meet its policy vision and implementation.

## 9. Policy Recommendations and Next Steps

Based on the detailed analysis above, the following policy recommendations are proposed to realize the opportunity of HTP manufacturing for export while managing risks:

**9.1. Establish Special Approval for HTP Export Manufacturing:**

India should create a special authorization mechanism to allow production of Heated Tobacco Products exclusively for export. This can be done via:

- Existing law: Amend the 2019 e-cigarette prohibition act to include a clause that manufacturing of "heat-not-burn tobacco products for export" is permitted under licenses issued by the Government of India.
- Policy notification: In parallel, issue a notification under the Cigarettes and Other Tobacco Products Act (COTPA) or via the Ministry of Commerce clarifying the guidelines for such manufacturing.
- Defined terms: Precisely define HTPs (to avoid loopholes) and clearly state all output must be exported, with zero domestic marketing.

**9.2. Utilize EOU or Bonded Manufacturing:**

- Initially funnel this activity into EOUs to leverage existing customs controls. For example, the government could designate an "HTP Export Zone" perhaps in a tobacco-growing state (Andhra Pradesh has EOUs near ports, ideal for export).
- EOU units benefit from duty-free imports and easier procedures for export. This also reassures that domestic taxes like GST won't complicate their operations (since EOU sales are zero-rated).

**9.3. Invite and Incentivize Investment:**

Launch a targeted investment promotion drive to attract Indian and international firms. Issue a policy notification allowing 100% FDI under the automatic route for export-only HTP manufacturing—subject to licensing and bonded/EOU compliance. This clarity will eliminate current regulatory ambiguity and encourage participation from leading global players like PMI, BAT, and KT&G, as well as Indian firms like ITC and GPI.

Offer time-bound incentives for early investors—such as 5-year corporate tax holidays or concessional duty structures—conditioned on minimum capital and export thresholds. Fast-track land allocation, utilities, and environmental clearances in designated tobacco EOUs to ease entry barriers and signal India's seriousness in capturing the HTP export opportunity.

**9.4. Form a Multi-Ministry Task Force:**

Constitute a task force or committee with representatives from:

- Ministry of Commerce & Industry (to lead, given export focus),
- Ministry of Finance (Dept. of Revenue, for tax and customs rules),
- Ministry of Agriculture (for farmer linkages),
- Ministry of Health and Family Welfare (to ensure health concerns are addressed),
- Tobacco Board of India (to coordinate supply side and farmer interest),
- and possibly the Ministry of Law/Justice (for drafting legal changes).

This task force should oversee the rollout, coordinate between departments, and engage stakeholders in dialogue to preempt issues. For example, involving the Health Ministry early ensures their buy-in with the safeguards.

**9.5. Develop Robust Regulatory Guidelines:**

Draft a detailed guideline document covering:

- Licensing procedure: who can apply (e.g., only companies with certain track record), what information required (tech plans, target export markets, etc.), license fees, renewal conditions.
- Quota or production cap (if any) in initial years – perhaps limit number of licenses at first to manage oversight (e.g., pilot with 2–3 units).
- Security protocols: installation of CCTV in production areas, daily accounting of production, periodic audits by Customs and Excise officials.
- Product standards: even though products aren't for India, ensure manufacturers meet quality standards of destination. Possibly require adherence to say ISO standards for tobacco product manufacturing and any relevant standard.
- Waste disposal and environmental norms compliance.
- Worker safety and training mandates.

**9.6. Strengthen Track-and-Trace Systems:**

Implement a sophisticated track-and-trace solution specifically for tobacco exports:

- Unique codes on all unit packets which are registered in a central database.
- Integration with customs' ICEGATE system so that each export consignment's contents (codes range) are logged.
- This way, if any pack is found in the Indian market, authorities can trace which factory and batch it came from and take action.

This system can be built on existing frameworks (India has piloted track-and-trace for pharmaceutical exports and is considering for domestic cigarettes).

**9.7. Public Health Safeguards and Messaging:**

- Issue a public statement reiterating that domestic sales of HTPs remain prohibited and that this move is about export and farmer livelihoods. Emphasize India's commitment to tobacco control remains intact.
- Commit a portion of the revenue to health: for example, officially announce that "X% of net revenue earned from this initiative will fund Tobacco cessation programs, etc." This makes the proposition more acceptable politically and morally.
- Engage with public health experts to communicate how leakage will be prevented and get their suggestions. Possibly include an NGO rep or health expert in an oversight advisory capacity (to keep transparency per FCTC Article 5.3 requirements).

**9.8. Farmer-Centric Measures:**

- Through the Tobacco Board, ensure farmers benefit from this shift. Perhaps facilitate contract farming or MOUs where HTP manufacturers commit to buying a certain tonnage directly from farmer groups at a premium for specific quality. This coexists with the auction system – maybe a small part of crop is grown to spec for HTP (like lower nicotine, specific curing style) and gets better price.
- Train farmers on any new quality requirements. The Board can extend its Good Agricultural Practices initiatives to ensure leaf produced meets export-manufacturers' needs (especially since HTP sticks may demand lower residues of certain chemicals, etc.).
- The government could also create a Tobacco Farmers Welfare Fund where a little slice of the new revenue flows to support farmers (for education, alternate crops R&D, insurance). This would show that the government is channeling gains back to the grassroots.

**9.9. Timeline and Pilot Approach:**

- Immediate (0–6 months): Form task force, stakeholder consultations (including inviting comments from industry and health advocates), draft required legal amendments, identify potential EOU locations.
- Short-term (6–12 months): Pass necessary amendment (could be done in a Parliament session as part of an ordinance or attached to a bill), issue government notification on policy. Begin accepting license applications. Possibly approve one pilot license by the end of year 1.
- Medium-term (1–3 years): Pilot factory construction and commencement of production. Monitor closely. If all goes well, approve additional licenses. Evaluate export performance. Start capturing data on revenues, etc.
- Long-term (3–5 years): Refine the policy (e.g., if diversion is zero and everything smooth, perhaps consider expanding capacity or even negotiating to allow device assembly). Work to integrate India as a crucial node in global HTP supply chains. By 5 years, aim for the optimistic scenario numbers (10–15B sticks exported, ~$1B value).
- Throughout, remain adaptive: if something isn't working (e.g., not enough investors due to a certain rule), adjust it; if health concerns arise, address them.

**9.10. International Cooperation and Standards:**

- Engage with importing countries' regulators to ensure Indian-made HTPs will be approved for sale there. For example, pre-consult with EU regulators about compliance of Indian factories with EU Tobacco Product Directive requirements, or with Japan's Ministry of Health for their standards. This pre-empts any market entry issues for exports.

- Cooperate on anti-illicit trade initiatives. Show the world that India's supply will be clean and won't feed black markets. Possibly join the WHO Illicit Trade Protocol (if not already) to bolster image.

**9.11. Monitor Global Market Trends:**

- Keep an eye on the HTP technology evolution. If nicotine salts or other new formats come, ensure India isn't left behind. Perhaps allow R&D on next-gen nicotine products in a controlled way so that if the market shifts, Indian industry can pivot (for instance, if down the line, some safer product displaces HTP, India could consider that for export too).
- Also monitor if any major country bans HTPs (unlikely in the near term, but e.g., if the EU drastically changes stance). That could affect demand. So, diversify export destinations – encourage companies to supply a range of markets (not rely on just Japan/EU).

**9.12. Evaluation and Scale Decisions:**

- After, say, 3 years of operation, conduct a comprehensive evaluation of the policy's outcomes: export revenues achieved, jobs created, any instances of rule violations, farmer impact, etc.
- If positive, consider scaling up the target (e.g., increasing number of licenses or encouraging existing ones to expand). If issues are found, adjust the controls or decide if the program needs rethinking.
- Always keep a mechanism to terminate a license if misuse occurs – that threat will keep companies compliant.

**Next Steps for Stakeholder Consultation:**

The government should initiate stakeholder meetings:

- Farmers and Tobacco Board: to assure them this will create new demand and hear their input (they might ask for contract farming safeguards or price assurances).
- Tobacco Industry: both domestic and international players – discuss what they would need to invest in India, any concerns like IP protection or profit repatriation (Govt can assure profit repatriation is fine since its export earnings, etc.).
- Public Health community: present the plan, highlights that domestic ban stays, and incorporate any feedback about monitoring. If strong opposition, emphasize the economic necessity but show health will not be compromised.
- Parliamentary Committees if needed: Sometimes having MPs on board (especially from farming regions) helps lend support and not frame this as government sneaking in tobacco products. Transparency will build trust.

## 10. Conclusion

India stands at a crossroads in its tobacco economy. On the one hand, the country has reaped success as a top leaf exporter, empowering farmers and earning foreign exchange; on the other, it rightly prioritizes the health of its citizens by curbing tobacco use and disallowing new addictive products. The concept of export-only HTP manufacturing offers a solution that marries these economic and health objectives. It allows India to evolve up the value chain – much like it has in other industries – and not be left behind as the global tobacco industry undergoes technological shifts.

Through this report, we have examined how enabling HTP exports could transform India's tobacco sector:

- It could unlock billions of rupees in additional value from the same tobacco crop, with significant gains for government revenue and potentially higher, more stable incomes for farmers.
- It aligns with global market trends where reduced-risk products are gaining ground, ensuring India remains relevant in the world market rather than risking declining leaf demand in the long term.
- With appropriate safeguards, India can implement this without exposing its population to these products – thus maintaining its public health stance. In fact, the extra funds generated can bolster health and social programs.
- International comparisons show that others are moving in this direction or have succeeded with similar models, so India can draw on best practices to leapfrog efficiently into being a competitive exporter of HTPs.

The fiscal and strategic opportunity is clear. By taking the recommended steps in a phased and controlled manner, the Government of India can catalyze a new sunrise industry – "smoke-free" tobacco exports – benefiting the economy, the farming community, and the exchequer. At the same time, through strict regulation and transparency, India can mitigate risks and continue to champion public health on the world stage.

In conclusion, the initiative to enable HTP manufacturing for export is not about promoting tobacco, but about promoting value addition and economic resilience. It acknowledges the reality that millions depend on tobacco for livelihood and seeks a pragmatic path to support them in a changing world, all while keeping faith with India's health commitments. With careful execution, this policy could become a textbook example of how to convert a public health restriction into an economic advantage – "Make in India for the world," in its true sense, with minimal collateral harm.

It is recommended that the Government proceeds to the next phase of deliberation and implementation, beginning with inter-ministerial consultations and establishing the legal framework, as outlined in this report. The sooner India acts, the sooner it can stake its claim in the global HTP market and secure the associated benefits. The opportunity is ripe, and with the right approach, India can harvest its rewards.

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