



India's PHARMAEXPORT

- ECOSYSTEM -

Infrastructure, Policy, and Private Sector Synergies for 2030

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From the Desk of CEO

As I reflect on the remarkable journey of India's pharmaceutical industry, I am struck by both its resilience and its boundless potential. Today, we stand at an inflection point, where the confluence of policy, infrastructure, and private-sector dynamism is shaping our global footprint.

The numbers speak for themselves: \$30.47 billion in exports in FY25, a thriving generics stronghold, and an emerging leadership in biologics and vaccines. But beyond the data lies a story of strategic intent, collaborative innovation, and a nation's unwavering commitment to global health equity.

The Pillars of Progress

Our industry's success is no accident. It is the result of deliberate choices, government foresight in launching the PLI schemes, private-sector agility in embracing high-value manufacturing, and a collective drive to transcend from "cost-based" to "innovation-led" competitiveness. The PLI scheme's overachievement in investments (Rs 4,253 crore against a target of Rs 3,938 crore) and its contribution of 27% to FY25 exports exemplify what public-private synergy can accomplish. Meanwhile, the resurgence of bulk drug manufacturing signals our growing self-reliance.

The rise of Indian CDMOs as global partners in biologics, the forays into CAR-T and mRNA therapies, and the quiet revolution in cold-chain logistics (projected to grow to \$0.8 billion by 2033) are testaments to an industry maturing into its role as a solutions provider for the world.

The Challenges That Demand Candor

However, complacency is not an option. Our dependence on Chinese APIs (71% of intermediaries) remains a strategic vulnerability, one that demands accelerated diversification and domestic capacity-building. Regulatory scrutiny, for uncompromising quality governance across the value chain. And as inflation and trade tensions loom, we must navigate these headwinds with the same dexterity that has defined our generics dominance.

The domestic landscape, too, presents paradoxes. While healthcare spending languishes at 1.8% of GDP (below the 2.5% target), programs like Ayushman Bharat are unlocking rural demand. Bridging this gap between unmet needs and market potential, will be critical to sustaining our dual engine of domestic growth and export prowess.

The 2030 Imperative: From Pharmacy to Innovation Powerhouse

As we chart the course to 2030, our vision must be bolder than incremental growth. Three imperatives stand out:

- 1.API Sovereignty: The PLI scheme is a start, but we need a moonshot, scaling Greenfield API parks, incentivizing R&D in synthetic biology, and forging alliances with alternative suppliers in Europe and Latin America.
- 2. Cold Chain as Competitive Edge: The next frontier of export growth lies in temperature-sensitive biologics and precision therapies. Investments in IoT-enabled logistics and sustainable cold-chain infrastructure will differentiate India as a reliable partner for advanced medicines.
- 3. Innovation Ecosystem: The \$450 billion by 2047 ambition hinges on moving beyond generics. PRIP's focus on novel therapies, coupled with academia-industry hubs for translational research, can position India as a discovery-to-delivery leader.

A Call to Collective Action

Realizing the \$120–130 billion export target by 2030 will require policy consistency, private-sector risk-taking, and a shared commitment to quality and accessibility. We must champion collaborative R&D, advocate for regulatory harmonization, and invest in talent pipelines that blend scientific rigor with entrepreneurial zeal.

The world looks to India not just for affordable medicines, but for health security solutions. Let us meet this moment with the urgency and imagination it deserves.



Executive Summary

India continues to solidify its position as the "pharmacy of the world," with its pharmaceutical industry projected to reach a value of \$120-130 billion by 2030. This growth is underpinned by a robust export performance in FY 2024-25, which concluded with a total of US\$30.47 billion, and sustained momentum into early FY26. This expansion is driven by the synergistic impact of proactive government policies, particularly the Production Linked Incentive (PLI) schemes, which have spurred domestic manufacturing and attracted significant investments.

Simultaneously, critical infrastructure upgrades, particularly in cold chain logistics and the development of integrated pharmaceutical parks, are strengthening the export backbone. Private sector engagement, characterized by substantial Foreign Direct Investment (FDI), increasing private equity interest in high-value segments like Contract Development and Manufacturing Organizations (CDMOs), and a sharpened focus on research and development (R&D), further amplifies these efforts. While the ecosystem demonstrates remarkable resilience, persistent challenges such as a notable dependence on Chinese Active Pharmaceutical Ingredients (APIs) and ongoing scrutiny over quality control require continuous strategic attention. Despite these headwinds, the integrated approach of policy, infrastructure, and private sector synergies positions India favorably to achieve its ambitious 2030 export targets and enhance its global leadership in pharmaceuticals.

Source: <u>The Economic Times</u>

Source: Pharmaceuticals Export Promotion Council of India



Introduction

India's Strategic Role in Global Healthcare

India is globally acknowledged for its strong pharmaceutical sector, especially in:

- Supplying affordable generic medicines.
- Manufacturing critical Active Pharmaceutical Ingredients (APIs).
- Expanding its presence in innovative and specialty therapies.

The country plays a vital role in global medicine supply chains, fulfilling:

- Around 50% of Africa's demand for generic drugs.
- Approximately 40% of the United States' generic drug requirements.
- About 25% of the United Kingdom's pharmaceutical needs are met.

India's proactive response in public health emergencies highlights its global health commitment:

• Supplied **400 million tablets** and **45 tonnes of hydroxychloroquine** to several countries during times of crisis, strengthening its image as a dependable pharmaceutical partner.



Economic Importance & Industry Growth

The pharmaceutical sector continues to be a key contributor to India's economy, showing strong performance in Q4 2024, driven by:

- Rising healthcare spending is both domestically and globally.
- Strategic policy incentives and government-backed schemes.
- A resilient and expanding domestic market.

Looking ahead, the Indian pharmaceutical market is expected to grow significantly:

- With a target of \$120–130 billion by 2030.
- A long-term ambition is to reach \$450 billion by 2047.

Foundations for Sustainable Growth

Several structural advantages underpin India's success:

- Cost-effective manufacturing infrastructure.
- Access to a large, skilled pool of scientific and technical professionals.
- A strengthening regulatory framework aligned with global standards.
- Reputation for consistent quality and affordability, essential in building trust in global markets.



Integrated Strategy: Policy, Infrastructure, and Private Sector Synergies

The Indian government has implemented forward-looking initiatives like:

- Production Linked Incentive (PLI) schemes to boost domestic manufacturing and exports.
- Enhanced focus on self-reliance in API production, reducing dependency on imports.

Significant progress in infrastructure development includes:

- Investments in cold chain logistics for temperature-sensitive drugs.
- Establishment of integrated pharmaceutical parks to improve industrial efficiency and compliance.

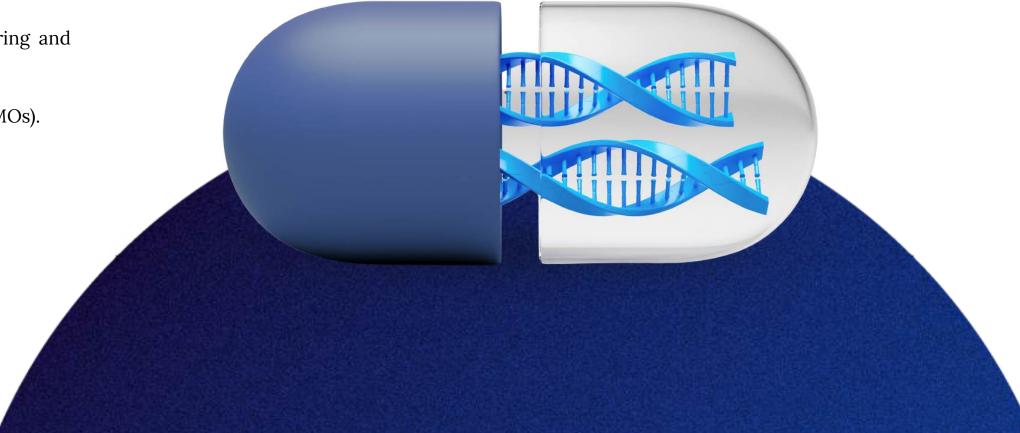
The private sector is playing a vital role through:

- Increased Foreign Direct Investment (FDI), particularly in advanced manufacturing and biotech.
- Growing interest in Contract Development and Manufacturing Organizations (CDMOs).
- A stronger emphasis on Research & Development (R&D) and novel drug discovery.

Towards a Global Innovation Powerhouse

The convergence of government support, infrastructure enhancement, and private sector investment is helping India:

- Strengthen its global pharmaceutical export capabilities.
- Transition from a generic drug supplier to a center of pharmaceutical innovation and biopharma leadership.
- Meet its 2030 and 2047 growth and export targets, while supporting global health security and access to medicines.



Current Landscape

Pharmaceutical Export Performance

India's pharmaceutical export sector has demonstrated consistent growth, reinforcing its critical position in the global healthcare supply chain. The performance in late 2024 and throughout 2025 showcases a resilient and expanding industry, driven by diverse product offerings and strategic market penetration.

Overall Export Value and Growth Trajectory

India's pharmaceutical exports concluded the fiscal year 2024-25 with a robust total of **US\$30.47 billion**. This figure aligns closely with earlier projections that anticipated exports to **US\$30.47 billion in FY 2024-25 (April-March)**, marking a significant increase from \$27.85 billion in FY24. This growth reflects a consistent positive trend observed over the preceding five years, affirming India's status as a net exporter of pharmaceuticals.

In May 2025, pharmaceutical exports surged to \$2,475.70 million, demonstrating a healthy 7.38% growth compared to the same period in the previous fiscal year (May 2024-25). Cumulatively, for the initial two months of

FY26 (April-May 2025), total pharmaceutical exports reached \$4,961.71 million, underscoring steady growth during the fiscal year's commencement. The positive trend continued into June 2025, with Drugs & Pharmaceuticals exports increasing by 5.95% to \$2.62 billion, up from \$2.47 billion in June 2024.

While India has consistently maintained its position as a net exporter of pharmaceuticals, the rising trend in pharmaceutical imports, particularly for bulk drugs and drug intermediates, remains a point of attention. This signifies a continued reliance on external sources for certain raw materials, a factor that policy initiatives aim to mitigate.

Source: PIB Source: PIB

Source: Pharmabiz



India's Pharmaceutical Export Performance (Q4 2024 & H1 2025)

Period	TOTAL PHARMA EXPORTS (USD BILLION)	GROWTH RATE (%) (YOY/PREVIOUS PERIOD)	NOTES
FY 2024-25 (FULL YEAR)	30.47	-	Consistent positive trend, up from \$27.85 Bn in FY24
FEB 2025	2.47	-4.42% (vs Jan 2025)	Marginal decline from Jan 2025
APRIL 2025	2.49	2.37% (vs April 2024)	Positive growth at the start of FY26
MAY 2025	2.48 (2,475.70 Million)	7.38% (vs May 2024-25)	Robust growth momentum
JUNE 2025	2.62	5.95% (vs June 2024)	Continued positive growth
APRIL-MAY FY26 (CUMULATIVE)	4.96 (4,961.71 Million)	-	Strong cumulative performance for the initial FY26 months
APRIL-JUNE FY26 (CUMULATIVE, TOTAL EXPORTS)	210.31	5.94% (vs April-June 2024)	Overall merchandise & services export growth

- billion. This performance is particularly impressive given an overall 3% dip in India's total merchandise exports during the same period.
- Formulations and Biologicals Lead: Drug formulations and biologicals continue to be the cornerstone of India's pharmaceutical exports. They accounted for a significant 75.74% of total exports in May 2025 and 73.75% in FY24. This dominance underscores India's formidable capabilities in producing finished dosage forms and increasingly complex biological products, which are in high global demand due to their affordability and quality.

Emerging Areas of Growth and Diversification:

• Bulk Drugs and Drug Intermediates: While holding a smaller overall share at 17.08% in FY24, this segment showed a healthy 4.40% expansion in May 2025–26. The growth in bulk drugs (Active Pharmaceutical Ingredients – APIs) and drug intermediates is crucial for India to strengthen its domestic manufacturing base, reduce reliance on imports for key raw materials, and enhance self-sufficiency in the pharmaceutical value chain. Government initiatives like Production Linked Incentive (PLI) schemes are specifically designed to boost domestic API production.

Source: <u>Jainam</u>

- Vaccines A Global Health Powerhouse: Vaccines have emerged as the third-largest exported category, valued at \$190.13 million in May 2025, experiencing a significant 13.64% increase. India is a leading global vaccine manufacturer, supplying over 70% of the World Health Organization's (WHO) total vaccine stock and approximately 60% of the world's vaccine supply. The "Vaccine Maitri" initiative during the COVID-19 pandemic, where India supplied vaccines to over 100 countries, further solidified its role in global health initiatives. Source: The Economic Times
- **Surgical Products:** This segment also recorded robust growth, with an 8.58% increase, reaching \$124.62 million in May 2025. This indicates a growing international demand for Indian-made medical devices and surgical consumables.

Source: Express Pharma

• AYUSH & Herbal Products: Reflecting the rising international acceptance of traditional Indian medicine systems, AYUSH & Herbal products demonstrated positive momentum, with a 7.36% growth and a value of \$119.89 million in May 2025. This diversification broadens India's pharmaceutical offerings and taps into a niche but growing market for natural and alternative healthcare solutions.

Source: <u>Express Pharma</u>

Strategic Shift towards Biopharmaceuticals and Biologics:

- **Rapid Expansion:** The biopharmaceuticals and biologics segment is experiencing rapid expansion, propelled by strategic investments and increasing global demand for biosimilars. India is already a leading global supplier of biosimilars, leveraging its affordable manufacturing base and expertise gained from generic drug production.
- Patent Expirations as an Opportunity: A significant driver for this growth is the expiration of patents on several blockbuster biologics by 2025. This presents a massive opportunity for Indian manufacturers to capture a larger share of the global biosimilar market. This strategic shift towards higher-value, complex molecules is crucial for the Indian pharmaceutical industry to enhance its global competitiveness and move beyond its traditional focus on generic drugs. Key Indian players are actively building global portfolios in biosimilars like Adalimumab, Trastuzumab, and Rituximab.
- Innovation and R&D: Indian pharma firms are increasingly investing in research and development, particularly in biologics, biosimilars, cell and gene therapies, and mRNA vaccine technologies. This focus on innovation is positioning India as a hub for cutting-edge medicine, rather than just a generic exporter. The Bio-E3 policy and Bio-RIDE scheme are government initiatives designed to foster this growth by enhancing local manufacturing and research capabilities.



Key Drivers of Export Growth:

- **Cost Competitiveness:** India's ability to produce high-quality medicines at significantly lower costs (30-40% less than Western nations) remains a primary competitive advantage.
- **Skilled Workforce:** A large pool of skilled chemists, biotechnologists, and pharmaceutical experts, churned out by numerous colleges and research institutions, provides a robust human capital base.
- **Robust Manufacturing Infrastructure:** India boasts the highest number of US FDA-approved drug manufacturing plants outside of the United States (over 665 facilities), demonstrating its adherence to international quality standards.
- Government Support and Policies: Initiatives like Pharma Vision 2020, Production Linked Incentive (PLI) schemes for APIs and key starting materials, and ongoing Free Trade Agreement (FTA) discussions (e.g., with the UK) are actively supporting the industry's growth and market access.
- **Global Market Diversification:** While the US remains the top destination (over 31% of exports in FY24), accounting for \$1.7 billion in May 2025, India is increasingly focusing on underpenetrated regions like Africa, Latin America, and Southeast Asia, further broadening its export reach.
- **Digital Transformation:** The Adoption of AI, big data analytics, IoT, and blockchain is enhancing efficiency in drug discovery, supply chain management, and regulatory compliance.
- **Sustainability:** Indian exporters are increasingly adopting eco-friendly and energy-efficient manufacturing practices, aligning with global sustainability trends and enhancing their reputation as responsible exporters.



Major Markets and Regional Dynamics

Dominance of the U.S. Market

- The United States continues to be the largest importer of Indian pharmaceutical products, accounting for around one-third of India's total pharmaceutical exports.
- From April 2024 to February 2025 (the first 11 months of FY25), exports to the U.S. were valued at approximately \$8,953.37 million. Source: new kerala
- In May 2025-26, Indian pharma exports to the U.S. grew by 1.50%, reaching \$1,711.75 million, which represents 34.50% of India's total pharma exports for that period. Source: Indian Pharma Post
- This continued dominance is partly due to drug shortages and plant closures in the U.S., providing an opportunity for Indian manufacturers to step in and meet the demand.

Exports to Regulated Markets Show Strength

- A significant portion of India's pharma exports goes to highly regulated markets like the U.S. and Europe.
- This highlights the Indian Pharmaceutical Industry's compliance with stringent international quality standards, a critical factor in gaining and maintaining trust in these advanced markets.
- The ability to meet global regulatory requirements serves as a competitive advantage, establishing India as a reliable source for quality medicines.



Regional Contributions to Export Landscape

- Europe grew moderately by 3.14%, and Africa by 1.71%.
- Combined, these four regions—NAFTA, Europe, Africa, and LAC—constitute 76% of India's total pharmaceutical exports.

Emerging Markets and New Partnerships

- The ASEAN region (Association of Southeast Asian Nations) recorded a 4.88% share of exports in May 2025, emerging as a newly contracted and expanding market for Indian pharmaceutical companies. Source: Indian Pharma Post
- This reflects India's strategic move to diversify its market reach and reduce overdependence on traditional export destinations.

Global Presence and Strategic Expansion

- Indian pharmaceutical products are now exported to over 200 countries, showcasing a deliberate and strategic global expansion.
- The top 5 countries for Indian pharma exports in May 2025-26 included the USA, UK, Brazil, South Africa, and France—a mix of developed and developing nations.
- This global reach is supported by strong growth in both developed markets and emerging economies, such as those in Africa and Southeast Asia.
- The strategy emphasizes supplying affordable, high-quality medicines globally, contributing to both healthcare access and India's economic growth.



Policy Framework

Driving Export Competitiveness

The Indian government's proactive policy measures are instrumental in shaping the pharmaceutical export ecosystem, fostering domestic manufacturing, and enhancing global competitiveness. These policies aim to reduce import dependence, especially for critical raw materials, and to position India as a global leader in high-value pharmaceutical production.

Production Linked Incentive (PLI) Schemes: Detailed Overview

• Overview and Objectives of the Scheme

The PLI Scheme for Pharmaceuticals was approved in February 2021 with a total financial outlay of Rs 15,000 crore. Source: <u>CFO</u>

The scheme aims to boost domestic pharmaceutical manufacturing, attract substantial investments, reduce dependence on imports, and increase exports of high-value pharmaceutical products.

It particularly targets advanced and innovation-driven segments such as:

- 1. Biopharmaceuticals
- 2. Complex generics
- 3. Patented drugs
- 4. Cell-based or gene therapy drugs
- 5. Orphan drugs, among others.

• Investment Achievements and Capital Inflow

The PLI scheme has exceeded its initial investment target, reflecting strong industry participation.

The original investment commitment was Rs 3,938.57 crore, while the actual investment realized stood at Rs 4,253.92 crore as of December 2024.

This overachievement is seen as a strong indicator of the scheme's effectiveness in attracting capital into the domestic pharma sector. Source: CFO





Disbursements and Contributions to Exports (FY 2024–25)

In FY 2024–25, PLI disbursements for pharmaceutical drugs amounted to Rs 2,328 crore.

This disbursement is significant, accounting for around 27% of India's total pharmaceutical exports during the same financial year.

Source: <u>The Economic Times</u>

Sales and Export Performance under the Scheme

Cumulative sales under the PLI scheme have reached a substantial Rs 2.66 lakh crore over the first three years of implementation.

Out of this, exports contributed Rs 1.70 lakh crore, emphasizing the scheme's role in enhancing India's pharma export capabilities. Source: <u>PIB</u>

Focus on Research & Development (R&D)

A notable 40% of total investments under the PLI scheme (equivalent to Rs 15,102 crore out of Rs 37,306 crore) has been directed toward Research & Development activities.

This highlights the scheme's strong emphasis on innovation, high-value production, and future-ready pharmaceutical manufacturing. Source: PIB

• Domestic Value Addition and Import Substitution

As of March 2025, the overall Domestic Value Addition (DVA) under the scheme stood at 83.70%, showing a significant reduction in import dependency.

This high DVA figure underlines the scheme's success in localizing production inputs and strengthening the domestic value chain. Source: PIB

PLI Scheme for Bulk Drugs - Key Achievements and Projects

• Project Approvals and Commissioning

Under the PLI scheme for Bulk Drugs, 48 projects have been approved, of which 34 were commissioned by December 2024. These projects cover the production of 25 essential bulk drugs, critical to India's pharmaceutical autonomy. Source: CFO

• India's Transformation in the Bulk Drug Trade

Due to initiatives under the PLI scheme, India has shifted from being a net importer (-Rs 1,930 crore) to becoming a net exporter (Rs 2,280 crore) of bulk drugs.

This transformation has boosted India's pharmaceutical selfreliance and enhanced global competitiveness in raw material supply.

Inclusive Growth and MSME Participation

- Support for MSMEs and Contract Manufacturing
- 1. The PLI scheme also promotes inclusive growth within the industry.
- 2.70 MSMEs have enrolled directly under the scheme.
- 3.An additional 40 MSMEs are engaged as contract manufacturers, collaborating with larger pharmaceutical firms.
- 4. This structure strengthens the MSME ecosystem, facilitating broad-based industrial growth and employment generation. Source: <u>PIB</u>
- New Manufacturing Initiatives and Greenfield Projects
- 1. Greenfield manufacturing projects for critical APIs like Penicillin G and Clavulanic Acid have been launched under the scheme.
- 2. These projects reflect the scheme's role in **reviving dormant sectors** and **strengthening backward integration** in pharmaceutical production.



Government Initiatives and Regulatory Enhancements

• Broader Government Measures to Strengthen the Sector

- 1.Beyond the scope of the PLI schemes, the Indian government has launched several initiatives aimed at strengthening the regulatory framework and promoting innovation within the pharmaceutical industry.
- 2. The year 2024 witnessed a range of regulatory reforms focused on drug quality improvement, supply chain transparency, and market accountability. Source: Nishith Desai

• Introduction of UCPMP 2024 (Uniform Code of Pharmaceutical Marketing Practices)

- 1.A major development was the release of the updated UCPMP 2024 on March 12, 2024, aimed at enhancing integrity in pharmaceutical marketing practices.
- 2. While the code was initially issued as voluntary, the Department of Pharmaceuticals intends to make it binding, thereby ensuring transparency, accountability, and ethical conduct within the industry.
- 3. The revision underscores a growing governmental emphasis on patient-centric practices and ethical standards in drug promotion. Source: <u>Financial Express</u>

• Revised Guidelines for Post-Approval Changes in Biological Products

New regulatory guidance has been introduced to streamline how post-approval changes in biological products are managed.

The changes are now categorized based on their potential impact on product quality, which determines whether formal approval or simple notification is required.

This approach improves regulatory clarity and efficiency for manufacturers handling complex biologics.

Centralization of Export NOCs by CDSCO

Effective May 15, 2024, the Central Drugs Standard Control Organization (CDSCO) has taken over the issuance of Export No Objection Certificates (NOCs) via its zonal offices, consolidating a previously fragmented process.

This move is expected to streamline export approvals and enhance oversight of pharmaceutical shipments.

Stricter Controls on Export of Unapproved/Banned Drug

Manufacturers exporting unapproved or banned pharmaceutical products are now required to submit formal undertakings affirming that such drugs are intended solely for export.

In case the export is not completed, the drugs must be physically destroyed to prevent their entry into the domestic market.

These steps aim to prevent illicit diversion and strengthen supply chain integrity.



• Promotion of Research and Innovation Programme (PRIP)

To boost cutting-edge R&D, the government is launching the Promotion of Research and Innovation Programme (PRIP).

Although operational guidelines are yet to be announced, PRIP is designed to stimulate innovation in high-potential areas such as:

- CAR-T cell therapy
- MRNA vaccines
- Complex and novel drug molecules

This initiative represents a strategic push towards making India a **leader in** advanced pharmaceutical technologies.

• Hosting of the International Conference of Drug Regulatory Authorities (ICDRA)

India hosted the ICDRA in 2024, further cementing its role in shaping global regulatory discourse.

The event highlights India's commitment to fostering international collaboration, aligning with global standards, and building consensus on regulatory priorities.

It also reinforces the country's growing influence in global pharma governance.

Overall Impact and Intent

Collectively, these initiatives are aimed at fostering a future-ready pharmaceutical ecosystem in India—one that supports groundbreaking therapies while maintaining a strong commitment to patient safety and ethical practices.

The focus on both regulatory rigor and innovation signals a well-rounded approach to positioning India as a global pharma leader.



Trade Facilitation and International Collaborations

• Institutional Support and Strategic Promotion by Pharmexcil

The Ministry of Commerce and Industry, through the Pharmaceuticals Export Promotion Council of India (Pharmexcil), plays a key role in promoting Indian pharmaceutical exports.

Pharmexcil implements a range of trade facilitation measures and international outreach programs to help Indian pharma companies expand globally.

A major focus is on organizing Buyer-Seller Meets (BSMs) in key international markets to facilitate direct engagement and build business relationships.

Some of the BSMs scheduled for FY 2024–25 and 2025 include:

- BSM INDIA-TANZANIA 2024-25
- BSM INDIA-ZAMBIA 2024-25
- BSM INDIA-MALAYSIA 2024-25
- BSM INDIA-PHILIPPINES 2025
- BSM INDIA-VIETNAM 2025

These events improve buyer-seller communication, reduce market entry barriers, and enhance the ease of doing business globally for Indian exporters.

Source: Pharmexcil





• Strategic Trade Agreements to Boost Exports

Discussions around Free Trade Agreements (FTAs)—notably the India-UK FTA—are expected to positively impact pharmaceutical exports.

These agreements can help in:

- Enhancing supply chain efficiency
- Improving access to affordable Indian medicines in global markets
- Encouraging Foreign Direct Investment (FDI), particularly in areas like Contract Development and Manufacturing Organizations (CDMOs) and joint R&D initiatives

FTAs also help simplify trade procedures, reduce tariffs and nontariff barriers, and make Indian pharma products more competitive internationally.

-1.5

-2

2.5

Policy and Operational Reforms for Export Ease

The Indian government continues to simplify customs clearance processes, introducing digital platforms and automated systems to improve efficiency for exporters.

These operational reforms reduce delays and increase transparency, contributing to an improved ease of doing business.

• Brand India Pharma Campaign - Building Global Trust

The "Brand India Pharma" campaign is actively promoted by the government to strengthen India's image as a reliable and high-quality global supplier of pharmaceuticals.

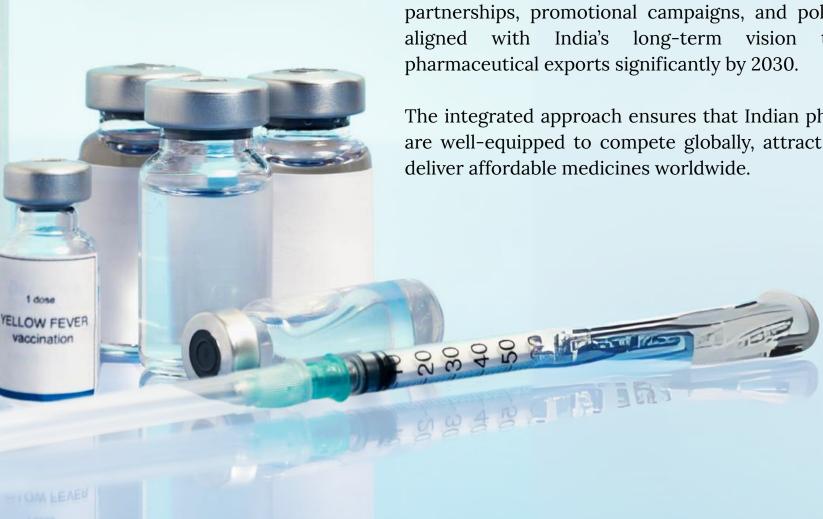
The campaign is designed to highlight India's capabilities in producing costeffective, WHO-compliant, and globally trusted pharma products.

It reinforces India's positioning in international markets by emphasizing quality, regulatory compliance, and supply chain reliability.

Vision Toward 2030 – Sustaining Export Growth

combined efforts-trade facilitation, partnerships, promotional campaigns, and policy reforms—are aligned with India's long-term vision to expand its

The integrated approach ensures that Indian pharma companies are well-equipped to compete globally, attract investment, and



Infrastructure Development: Fortifying the Export Backbone

Robust infrastructure is a foundational element for a thriving export ecosystem. India's pharmaceutical sector is witnessing significant investments and advancements in cold chain logistics and the development of specialized industrial zones to support its ambitious export targets.

• Advancements in Cold Chain Logistics for Pharma Exports

Market Size and Growth

The Indian cold chain pharmaceutical logistics market reached USD 0.57 billion in 2024. It is projected to grow to USD 0.80 billion by 2033, reflecting a Compound Annual Growth Rate.

Rate (CAGR) of 3.20% during the forecast period 2025-2033.

This growth is being primarily driven by the rising demand for temperature-controlled pharmaceutical logistics, especially in the export sector.

Drivers of Market Growth

Pharmaceutical exports are increasing, particularly for temperature-sensitive products such as biosimilars, gene therapies, specialty drugs, and vaccines. These products require strict temperature control across all stages of the supply chain.

Global quality and compliance standards imposed by export regulations, especially from developed markets, compel Indian pharmaceutical companies to upgrade their logistics systems.

Logistics providers are responding by developing modern cold storage facilities, utilizing refrigerated transportation, and implementing real-time monitoring systems to ensure product safety and efficacy.



Rise in Home Healthcare and E-Pharmacy Services

The growing popularity of home healthcare services and online pharmacies further adds to the demand for cold chain solutions.

These trends necessitate an efficient last-mile delivery infrastructure capable of handling temperature-sensitive medicines, particularly for direct-to-consumer delivery models.

Key Investments and Infrastructure Developments in 2024

In October 2024, UPS launched a healthcare-specific cross-docking center in Hyderabad, tailored for Indian pharmaceutical companies.

This facility includes international freight forwarding capabilities and substantial cold chain capacity, including:

- 15 pallets at controlled room temperatures of +15°C to +25°C, and
- 7 pallets at refrigerated temperatures of +2°C to +8°C.

In February 2024, FedEx Express opened its 'FedEx Life Science Center' in Mumbai.

• This center is designed to support clinical trial logistics, offering services such as dry-ice refilling, gel-pack replacement, and refrigerated storage.

These strategic moves by global logistics players reflect the growing recognition of India's potential in the global pharmaceutical cold chain market.



Strategic Recommendations and Emerging Trends

Market Size and Growth

Encouraging investment in standardized cold storage facilities across urban and rural regions to build a more robust infrastructure.

Promoting public-private partnerships to leverage combined expertise and investment for nationwide cold chain development.

Accelerating technology adoption, including:

- IoT-enabled devices and sensors for real-time temperature and condition monitoring,
- Blockchain for transparent and tamper-proof record-keeping throughout the logistics cycle.

Focusing on sustainability through:

- Adoption of energy-efficient technologies,
- Utilization of renewable energy sources such as solar and wind for powering warehouses, and
- Deployment of electric trucks to reduce the environmental footprint of cold chain transportation.

Conclusion

- The expansion of India's pharmaceutical cold chain logistics market is being driven by both **international demand and domestic healthcare trends**.
- With consistent investments, technological upgrades, and a push toward sustainability, India is positioning itself as a **key player in the global pharmaceutical cold chain ecosystem**.



Special Economic Zones (SEZs) and Emerging Pharma Parks

Importance of SEZs and Pharma Parks

Special Economic Zones (SEZs) and dedicated Pharma Parks play a critical role in providing the necessary infrastructure and regulatory support to scale up pharmaceutical manufacturing and export activities.

These zones offer significant advantages, including:

- Duty-free imports/procurement of capital goods and raw materials.
- Income tax exemptions, particularly a 100% exemption for the initial operational years.
- Streamlined regulatory approvals and 100% FDI permitted under the automatic route.

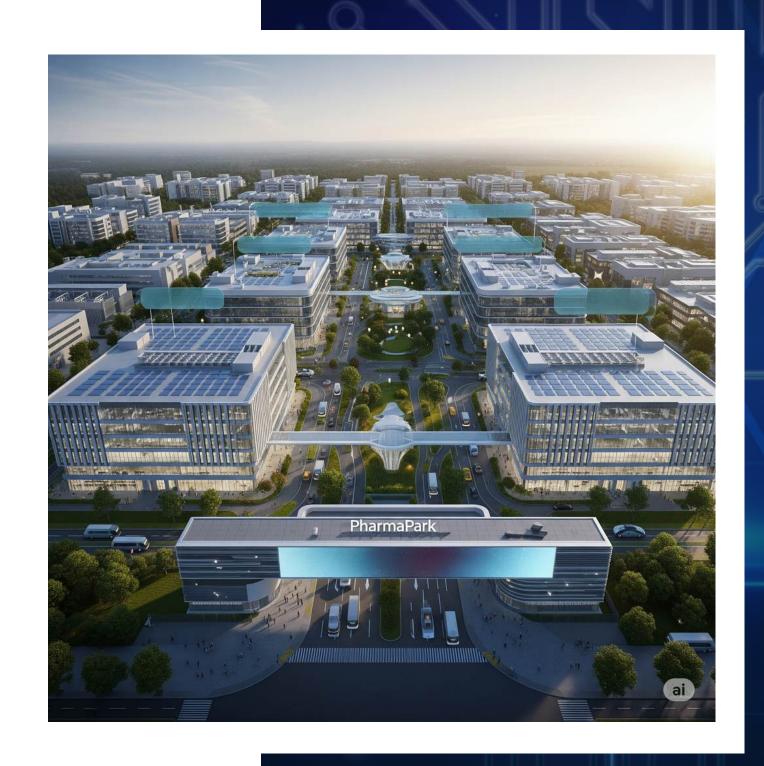
Such benefits make SEZs and Pharma Parks attractive investment destinations for pharmaceutical companies focused on global markets.

Notified Pharmaceutical SEZs (as of March 18, 2025)

Several pharmaceutical SEZs have been formally notified and are operational, contributing significantly to the sector:

- Divi's Laboratories Ltd. operates a pharma SEZ in Chippada Village, Visakhapatnam, Andhra Pradesh, notified since May 2006.
- Hetero Infrastructure Pvt. Ltd. runs a SEZ in Nakkapalli Mandal, Visakhapatnam District, notified since May 2007.
- Visakha Pharmacity Ltd. (formerly Ramky Pharma City (India) Pvt. Ltd.) has its SEZ in Visakhapatnam District, also notified in May 2007.

These SEZs offer world-class infrastructure and regulatory advantages, supporting export-oriented manufacturing and operations.



Development of New Pharma Parks - Focus on Self-Reliance & API Production

New initiatives are underway to build large-scale integrated Pharma Parks that not only boost production capacity but also reduce dependence on imports, especially for Active Pharmaceutical Ingredients (APIs).

The Uttar Pradesh government is developing North India's first bulk drug and formulation hub – the Lalitpur Pharma Park, located in the Bundelkhand region.

Key Highlights of Lalitpur Pharma Park

Planned across a vast 1,472-acre area, with a target execution timeline by 2027.

Environmental clearances have been obtained, and land allotment to industries has begun.

Phase I covers over 350 acres, and the project is expected to draw investments exceeding INR 12,000 crore.

Four pharmaceutical companies have already secured plots, including IJ Pharma and Badariya Pharma.

Two more companies – Riddhi Siddhi Pharma and JBJM Pharmaceuticals – are in the final stages of allotment.

The park enjoys excellent multimodal connectivity:

• Located along MDR 35B, and connected to NH-44 and NH-539, facilitating efficient logistics.





Cost and Operational Efficiencies of Integrated Parks

These parks are equipped with centralized utilities such as:

• Power, water, steam, and Effluent Treatment Plants (ETPs).

Having such utilities in place helps reduce project setup costs, which can otherwise constitute up to 60% of total investments.

This infrastructure also improves **environmental compliance** and streamlines **operational processes**.

Strategic Alignment with National Goals

These developments align with India's broader objective to become a global pharmaceutical manufacturing hub.

Reducing API import dependency, particularly from countries like China, is a key strategic focus.

The combined impact of existing SEZs and emerging pharma parks offers a cost-effective and export-ready manufacturing ecosystem for the Indian pharmaceutical sector.

Private Sector Engagement

Investment and Innovation Synergies

The private sector plays a pivotal role in driving India's pharmaceutical export growth through strategic investments, a strong focus on research and development (R&D), and the increasing prominence of Contract Development and Manufacturing Organizations (CDMOs). These elements collectively contribute to the industry's dynamism and global competitiveness.

Foreign Direct Investment (FDI) and Private Equity Trends in Pharma

• Overall PE-VC Investment Recovery in India (2024)

In 2024, Private Equity and Venture Capital (PE-VC) investments in India rebounded, showing a ~9% year-over-year growth, reaching approximately \$43 billion.

This recovery indicates a revival of investor confidence, especially as India strengthened its position as the second-largest PE-VC destination in the Asia-Pacific region, with about a 20% share of total regional investments.

The growth reflects increased trust in India's macroeconomic stability and policy direction, encouraging both domestic and international investments.



 Strong Momentum in Healthcare and Pharmaceutical Investments

The healthcare sector, including pharmaceuticals, witnessed a significant upswing in deal activity.

Healthcare deal volumes rose by ~80% in 2024, driven by:

- Large-scale medtech (medical technology) transactions.
- Increased funding in Contract Development and Manufacturing Organizations (CDMOs) within the pharma space.
- Continued expansion of single-specialty chains and regional healthcare providers.

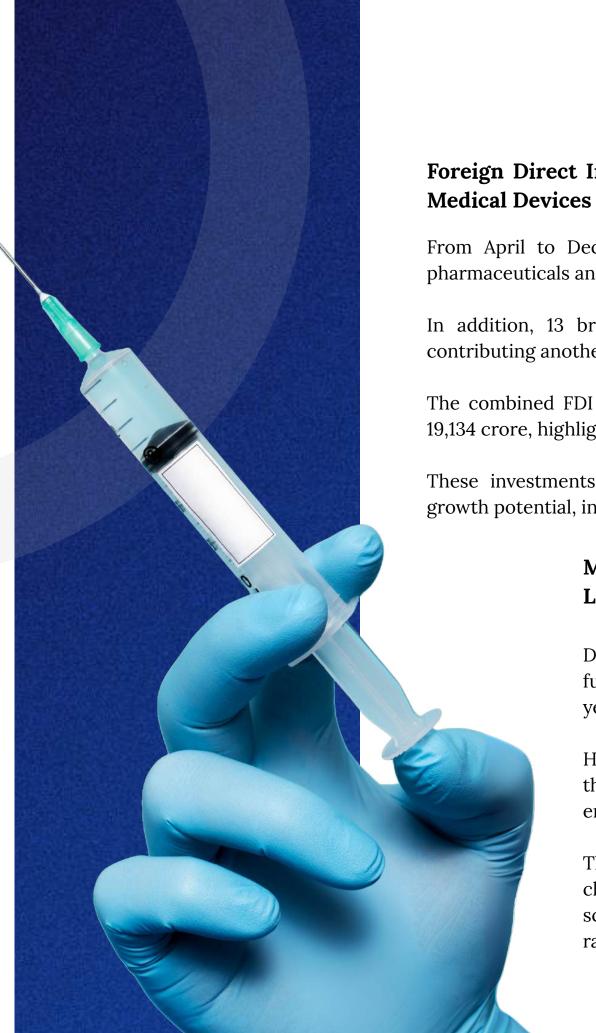
The investment momentum is expected to remain strong in 2025, fueled by sector resilience and demand for advanced medical and pharmaceutical solutions.

 Large PE Funds Closing Signals Ample Capital Availability

The healthcare investment surge is backed by the closure of large PE funds, showing robust capital availability:

- Kedaara Capital closed a \$1.7 billion fund in 2024.
- ChrysCapital followed with a \$2.1 billion fund in 2025.

These funds are expected to actively deploy capital in high-growth sectors like healthcare, pharmaceuticals, and technology, offering long-term opportunities.



Foreign Direct Investment (FDI) in Pharmaceuticals and Medical Devices

From April to December 2024 (FY 2024–25), FDI inflow into India's pharmaceuticals and medical devices sector totaled Rs 11,888 crore.

In addition, 13 brownfield project proposals received FDI approval, contributing another Rs 7,246.40 crore.

The combined FDI inflow into the sector for FY 2024–25 exceeded Rs 19,134 crore, highlighting strong international interest.

These investments underscore the sector's attractiveness due to its growth potential, innovation, and government support.

Mixed Signals in Pharma Funding Landscape (2025)

Despite strong macro trends, overall pharmaceutical funding dipped sharply in April 2025, falling over 90% year-on-year to just \$57.7 million across 14 deals.

However, early-stage startups accounted for over half the capital deployed, reflecting sustained interest in emerging and innovative ventures.

This suggests a more cautious yet active investment climate, where investors are strategically focusing on scalable, tech-enabled, or high-potential growth areas rather than broad-based funding.

Leading Companies' Strategic Investments and R&D Focus

Expansion and Strategic Focus of Indian Pharmaceutical Companies

Global Expansion and Market Focus

- Major Indian pharmaceutical companies are actively expanding their global presence.
- There is a strong focus on entering and consolidating positions in regulated international markets, such as the U.S., EU, and Japan.
- These expansions are part of a broader shift from being generics-centric to incorporating complex and novel therapies into their product portfolios.

Key Players Leading the Transformation

Sun Pharma:

- India's largest pharmaceutical company.
- Known for a wide global footprint and high-quality generics.
- Also developing innovative medicines to strengthen its specialty pipeline.

Divi's Laboratories:

- A major player in Active Pharmaceutical Ingredients (APIs).
- Exports to over 100 countries.
- Also venturing into intermediates and nutraceuticals.
- Other major players include Cipla, Lupin, Aurobindo Pharma, Biocon, Zydus Lifesciences, and Glenmark Pharmaceuticals all of which are investing in global growth and innovation.



The Growing Role of Contract Development and Manufacturing Organizations (CDMOs)

India's CDMOs: Rising Global Role in Biologics Manufacturing

Emergence as Global Partners for Biologics

Indian Contract Development and Manufacturing Organizations (CDMOs) are increasingly recognized as preferred partners for biologics manufacturing on the global stage.

This growing preference is driven by:

- Cost advantages, offering significant savings compared to Western counterparts.
- Strong regulatory compliance, ensuring adherence to international quality standards.
- Technical expertise, particularly in complex and high-value biologics manufacturing.

Opportunity from Patent Expirations

- The upcoming expiration of patents on several blockbuster biologics by 2025 presents a significant growth opportunity.
- Indian CDMOs are well-positioned to enter the global biosimilars market, leveraging their infrastructure and expertise to produce high-quality alternatives at competitive costs.



Private Sector Engagement

Strategic Investments and Government Support

Government Incentives and PLI Scheme

- The Indian government is supporting CDMOs through initiatives such as the Production Linked Incentive (PLI) scheme.
- These schemes aim to boost domestic manufacturing capacity, innovation, and global competitiveness.

Private and Public Investments

Strategic investments by both domestic and multinational firms are enabling CDMOs to:

- Upgrade facilities and adopt advanced technologies.
- Expand their biomanufacturing and R&D capabilities.
- Strengthen their global footprint and meet increasing international demand.

Capability Enhancement and Global Reach

Building for Future Demand

CDMOs in India are actively working on:

- Expanding and strengthening their innovation pipelines.
- Enhancing compliance with global regulatory standards (e.g., US FDA, EMA).
- Increasing their capacity to serve large-scale global markets with complex pharmaceutical and biologic products.



Focus on Affordable Healthcar

- The continued global demand for affordable healthcare solutions, particularly in cost-sensitive markets like the U.S., is a major driver of CDMO sector growth.
- Indian CDMOs are uniquely positioned to serve this need by offering highquality yet cost-effective development and manufacturing services.

Trade Agreements and International Collaboration

Role of Free Trade Agreements (FTAs)

Potential agreements, such as the India-UK Free Trade Agreement, are expected to:

- Encourage foreign direct investment (FDI) in the pharmaceutical contract manufacturing space.
- Promote collaborative research and joint ventures between Indian CDMOs and global pharmaceutical companies.

Strengthening India's Pharma Ecosystem

These developments are helping to:

- Enhance India's image as a trusted global manufacturing hub.
- Expand the country's capabilities beyond traditional generics into more complex, high-value pharmaceutical areas.



Challenges and Opportunities

Paving the Path to 2030

While India's pharmaceutical export ecosystem demonstrates robust growth and strategic advancements, it also navigates a complex landscape of challenges and opportunities that will shape its trajectory towards 2030.

A primary challenge for the Indian pharmaceutical industry is its significant dependency on China for Active Pharmaceutical Ingredients (APIs). India imports approximately 71% of its API intermediates from China. This concentration creates a strategic risk, as disruptions in China, such as environmental shutdowns or logistical delays, can directly impact India's production timelines and input costs. Furthermore, Chinese bulk drug firms often receive government subsidies, which can distort global pricing and place Indian firms at a marginal disadvantage. Any future policy changes in China could lead to volatility in India's pharmaceutical cost structures, underscoring the need for continued diversification of API sourcing and enhanced domestic manufacturing capabilities, which the PLI scheme aims to address.

Quality control issues across domestic manufacturers also pose a persistent challenge, leading to increased scrutiny from international regulators. While India's generic drugmakers continue to dominate new generic drug approvals, maintaining and enhancing stringent quality standards across all manufacturing facilities is crucial for sustaining global trust and market access. Regulatory bodies face the ongoing task of effectively implementing stricter controls across the vast pharmaceutical manufacturing sector. The introduction of stricter compliance requirements and pricing controls, while ensuring affordability and quality, can also pose challenges for profitability, requiring companies to invest in compliance and operational efficiencies.

Global economic trends, including inflation pressures and potential reciprocal tariff threats from key markets like the US, introduce uncertainties for export growth. For instance, signals of decline in exports were observed for February and March 2025 due to US tariff threats. Navigating these geopolitical and economic fluctuations requires adaptive strategies and continued government support through incentives and trade negotiations.

Domestically, the healthcare expenditure in India has been around 1.7% to 1.8% of GDP between 2022 and 2024, which is still below the government's target of 2.5% by 2025.. Increasing this expenditure is vital for expanding the domestic market, which in turn can provide a stable base for export-oriented production. Furthermore,

regulatory simplification remains an area for improvement. Industry stakeholders advocate for a single-window reporting mechanism to streamline operations and enhance the ease of doing business.



Leveraging Innovation and Market Demand for Future Growth

Despite the challenges, India's pharmaceutical sector is well-positioned to leverage several opportunities for future growth. The rising global demand for cost-effective treatments, particularly for generic drugs and biosimilars, remains a cornerstone of India's export strategy. The expiration of biologic patents by 2025 presents a significant growth avenue for Indian companies, which have successfully positioned themselves as leaders in the biosimilars market.

Innovation is a major focus, with the government expected to announce operational details of the Promotion of Research and Innovation Programme to spur R&D. The industry is poised to make notable progress in cutting-edge areas such as CAR-T cell therapy, mRNA vaccines, and the development of complex molecules. Emerging technologies like artificial intelligence (AI), machine learning (ML), and precision medicine are expected to revolutionize drug discovery, manufacturing, and patient care, accelerating research timelines and improving therapeutic precision. Investments in these areas will position India as a global leader in delivering high-quality, affordable medicines.

The expansion of Contract Development and Manufacturing Organizations (CDMOs) is a significant opportunity. India's CDMOs are becoming preferred partners for biologics manufacturing due to their cost advantages, robust regulatory compliance, and technical expertise. This segment is expected to grow as global pharmaceutical companies increasingly outsource manufacturing and development activities.

Domestically, the expanding demand driven by government programs like Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY) and the rising burden of non-communicable diseases (NCDs) such as diabetes and hypertension are creating a robust internal market for chronic therapies. This strong domestic base provides stability and economies of scale for manufacturers, supporting their export capabilities. Increased consumer awareness and self-medication trends are also boosting the Over-the-Counter (OTC) pharmaceuticals market.

Strategic international partnerships and investment in R&D are essential for sustaining growth and competitive advantage. Collaboration among policymakers, academic institutions, and industry leaders will be crucial in addressing healthcare gaps and fostering innovation. The ongoing efforts to streamline regulatory systems will facilitate the adoption of groundbreaking therapies while ensuring patient safety remains paramount.



Conclusion and Strategic

Recommendations for 2030

Current Growth Trajectory and Export Performance

India's pharmaceutical export sector is experiencing strong and sustained growth, supported by government policies, infrastructure expansion, and dynamic private sector initiatives.

According to data from Q4 2024 and 2025, the sector demonstrated robust export performance, with:

- Exports reached \$30.47 billion in FY 2024-25.
- Continued growth is seen in the early months of FY 2025-26, indicating momentum is being maintained.

The export basket is becoming increasingly diversified and high-value, driven by:

- The continued dominance of formulations and biologicals.
- A rising contribution of vaccines and AYUSH products, reflecting the growing global demand for holistic and preventive healthcare.

The United States remains India's largest export destination, underscoring the country's credibility in regulated pharmaceutical markets.



• Key Enablers of Export Ecosystem Development

Production Linked Incentive (PLI) Schemes:

- Have played a pivotal role in boosting domestic manufacturing.
- Encouraged significant private investment in the production of critical APIs and highvalue pharmaceuticals.
- Helped India transition from being a net importer to a net exporter of several key bulk drugs, improving supply chain resilience.

Infrastructure Development:

- Substantial investments are being made in cold chain logistics, with new facilities established by global players like UPS and FedEx.
- These advancements address the increasing global demand for temperature-sensitive products, including vaccines and biologics.
- Initiatives such as the Lalitpur Pharma Park are examples of the country's efforts to create dedicated pharma manufacturing hubs, aimed at consolidating operations and reducing import dependencies.

Private Sector Contributions:

- Private equity and FDI inflows into CDMOs and innovation-driven ventures are enhancing the export ecosystem.
- Companies are focusing more on research, innovation, and specialty pharma to gain a competitive edge in international markets.





• Strategic Recommendations to Achieve \$120-130 Billion Export Target by 2030

1. Deepen API Self-Reliance and Diversification

Expand and strengthen the PLI scheme for Bulk Drugs, with a special focus on:

• Encouraging greenfield projects.

• Introducing research-linked incentives to foster innovation in API manufacturing.

Reduce overdependence on Chinese imports by:

• Supporting domestic API manufacturers through tax incentives and subsidies.

• Exploring new sourcing partnerships with other reliable international suppliers, including countries in Southeast Asia, Latin America, and Eastern Europe.

2. Accelerate R&D and Innovation

Increase both public and private sector investment in pharmaceutical R&D, especially in cutting-edge therapeutic areas like:

- Biologics
- Biosimilars
- Gene therapies
- mRNA-based vaccines

Fast-track the implementation of the Promotion of Research and Innovation Programme (PRIP) to:

- Facilitate easier access to research grants.
- Encourage industry-academia collaborations.

Allocate a larger share of the national research budget to life sciences, empowering companies to move up the value chain from generics to high-innovation products.

3. Enhance Cold Chain and Logistics Integration

Continue investing in modern, end-to-end cold chain logistics, particularly in underserved regions.

Integrate emerging technologies such as:

- IoT and sensors for real-time temperature and transit monitoring.
- AI for predictive maintenance and inventory optimization.
- Blockchain for secure, transparent, and tamper-proof supply chain tracking.

Encourage the shift toward green logistics, including:

- Incentivizing the use of renewable energy in warehouses.
- Promoting electric vehicles and sustainable packaging materials.

4. Expand and Streamline Pharma Parks and SEZs

Accelerate the development and operational readiness of planned Pharma Parks, ensuring:

- Integrated utilities such as effluent treatment, water, and power.
- A true single-window clearance mechanism to ease bureaucratic processes.

Reassess and update Special Economic Zone (SEZ) policies to:

- Make them more responsive to the current needs of export-oriented pharmaceutical manufacturing.
- Encourage global companies to establish their operations within these zones.

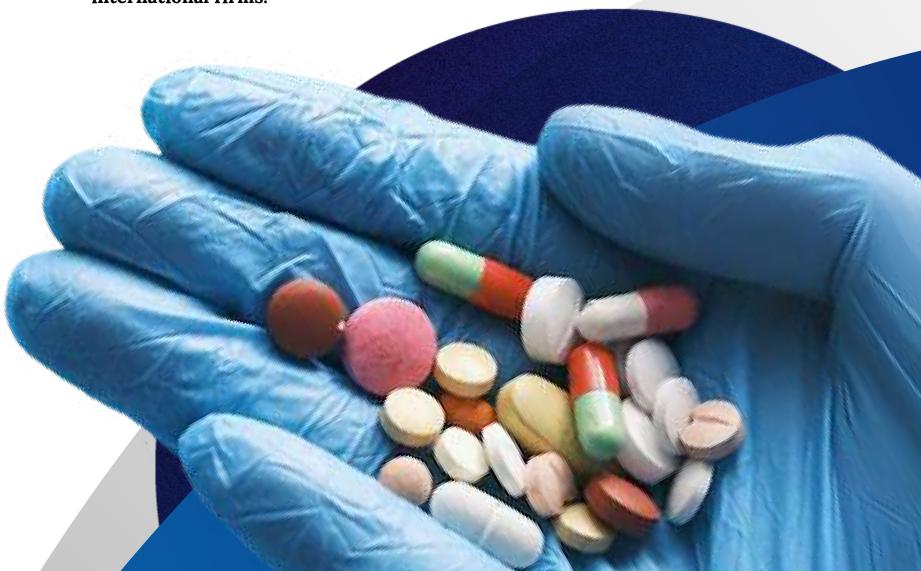
5. Strengthen Regulatory Compliance and Global Harmonization

Sustain efforts to uphold stringent quality control across all manufacturing facilities.

Work toward harmonizing Indian regulations with global standards such as those of the USFDA, EMA, and ICH.

Streamline domestic regulatory processes to:

- Minimize delays in product approvals and site inspections.
- Improve the overall ease of doing business for both domestic and international firms.



6. Diversify Export Markets and Foster Strategic Partnerships

While maintaining a strong presence in regulated markets, focus on expanding into emerging markets, including:

- Africa
- Latin America
- Southeast Asia

Accelerate the negotiation and signing of Free Trade Agreements (FTAs) with key trading partners to:

- Reduce tariffs.
- Facilitate smoother market entry and improve cost competitiveness.

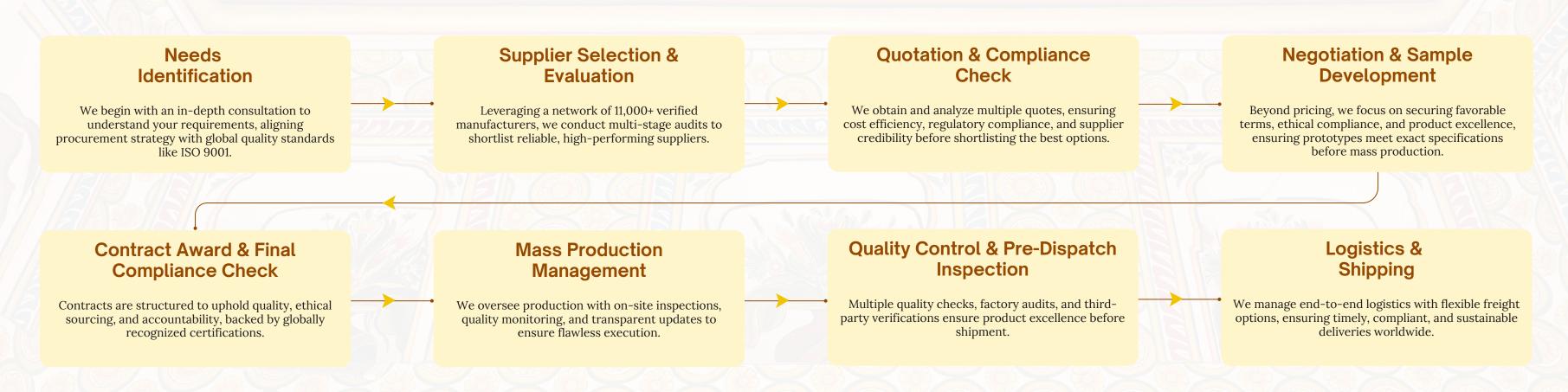
Promote export visibility and buyer engagement through platforms such as:

- iPHEX (International Exhibition on Pharma and Healthcare).
- Pharmexcil's Buyer-Seller Meets (BSMs) and trade delegations.



Our Procurement Process

After extensive research, our team has crafted a tested, structured procurement process that ensures top-quality products, competitive pricing, and seamless imports—backed by global standards. Our eight-step procurement framework ensures quality, compliance, and risk-free sourcing for maximum value.



At **Inductus Global**, we go beyond procurement—we build supply chain excellence with trust, transparency, and a commitment to global standards

For a detailed technical Explanation, <u>Click Here</u>







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Finding, vetting, and selecting retail vendors for the provision of goods and services.

PRODUCT DESIGN & DEVELOPMENT

Our design & Development process elevates your brand and boosts sales with functional, visually appealing products.

BUSINESS NEGOTIATION

Negotiation services to create favourable terms and help businesses acquire maximum value and quality.



Focus on quality, time, and resources to ensure constant production line flow, competitiveness, and profitability.

PACKAGING MANAGEMENT

Offering tailored solutions to boost efficiency while reducing cost and creating a strong brand presence.

LOGISTICS & SHIPPING ARRANGEMENT

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QUALITY CONTROL & INSPECTION

Quality control procedures to build investor confidence, reduce risks, and ensure legal compliance.

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Inductus ensures that each model is executed with precision, innovation, and strategic foresight—helping you unlock the full potential of your GCC in India.

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