India’s Pharma Industry Growth

Why in news?

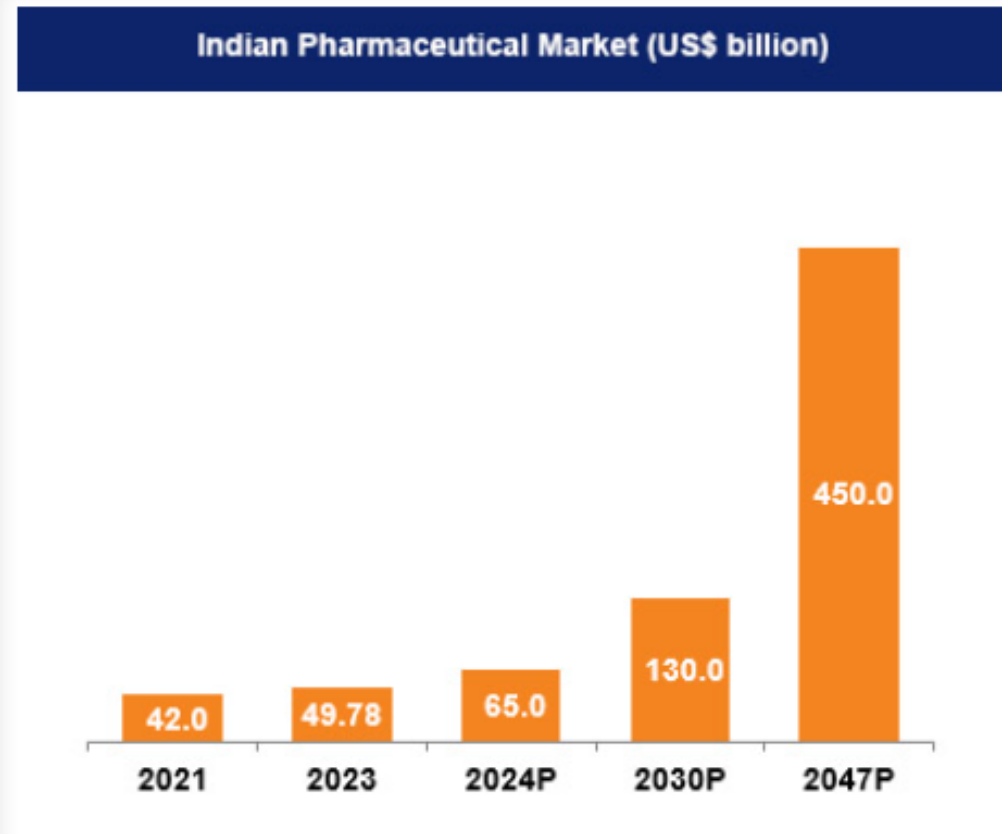
The Indian pharmaceutical sector, currently valued at $55 billion, is expected to reach $130 billion by 2030 and $450 billion by 2047.

How India became the pharmacy of the world?

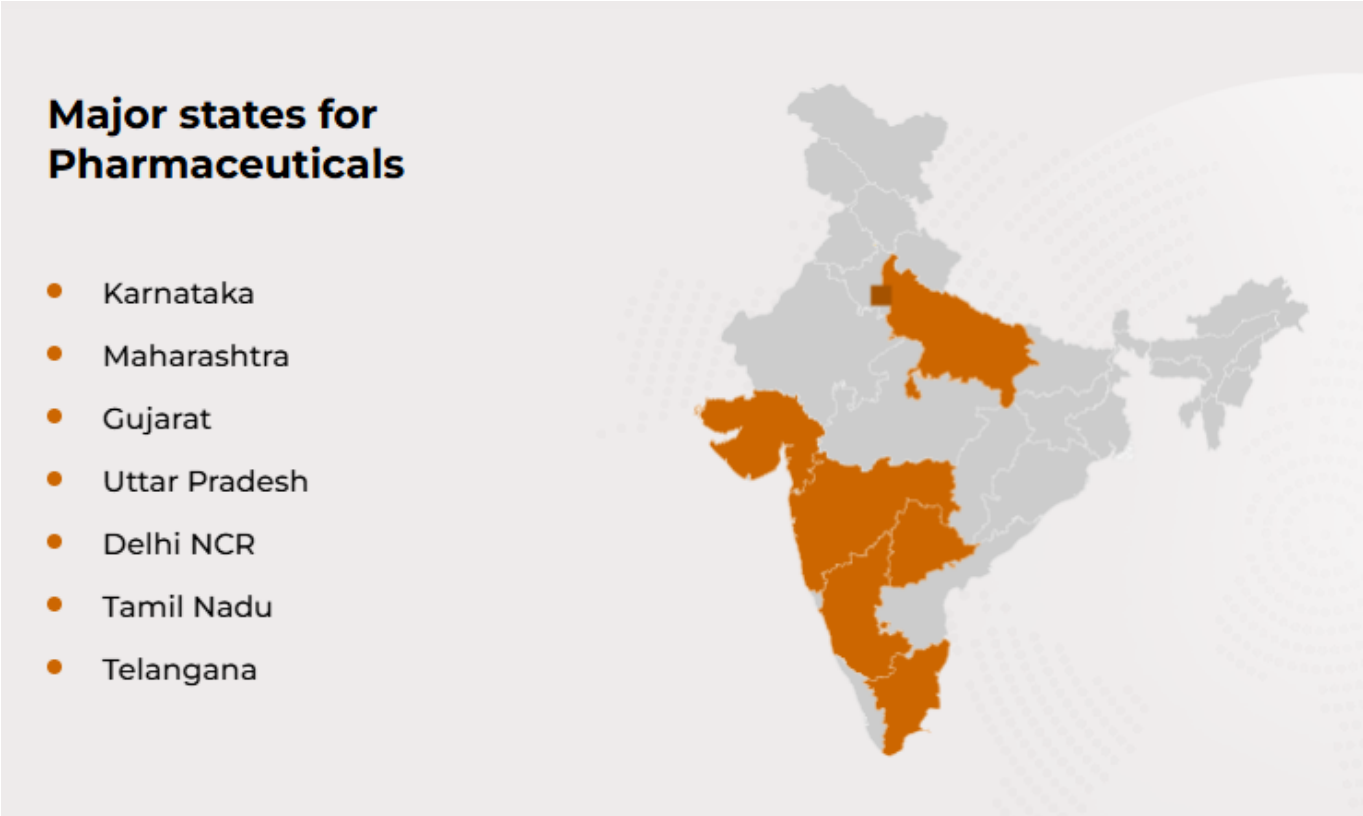
- **Historical journey** - From being a net importer of pharmaceutical products in the late 1980s, India has transformed into a major supplier of generics worldwide.
- **India's pharma growth** - Pharmaceutical sector has grown nearly 20-fold in the past 20 years, from $3 billion in 1999 to an estimated $58-59 billion in 2024.
- **Global Player** – India now ranks 3rd world wide by volume of production and 14th by value, thereby accounting for around 10% of world’s production by volume and 1.5% by value.

  WHO sources 65-70% of the vaccine it needs from India.

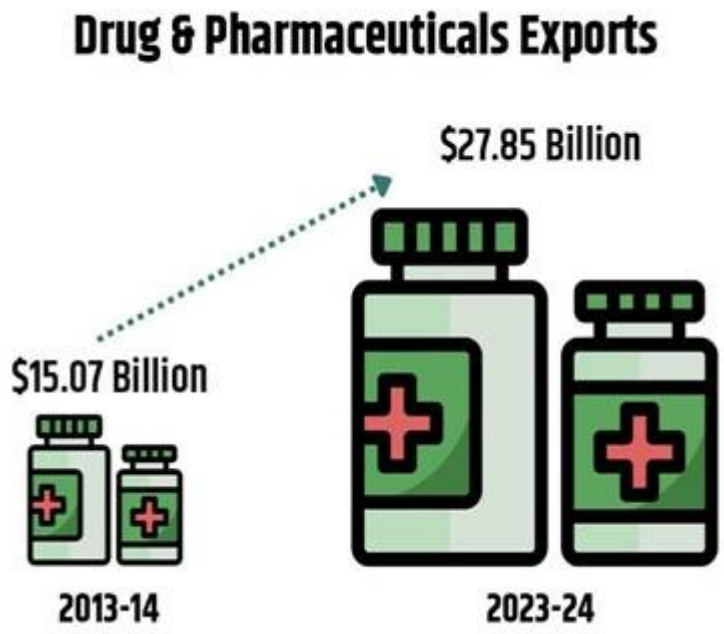
- India’s share of pharmaceuticals & drugs in global market is 5.71% , supplying 20% of global medicines by volume and 60% of vaccine demand.



- **Generic medicine** - India is the largest supplier of low-cost generics, vaccines and affordable medicines.
- About 8 out of 20 global generic companies are from India.
- India supplies 40% of US generic drugs and 25% of UK medicinal supplies, is expected to grow from $50-plus billion to $130 billion by 2030, requiring innovation to enhance its size and capabilities.



- **Export growth** - Pharmaceutical exports reached $504 million in 1995 and to $27.9 billion in 2023-2024.
    - It is projected to increase to $31 billion in 2024-25.
- Formulations & biologics dominate exports, at 72.54%, followed by drug intermediates & bulk drugs.
- **Growth projection** - Growth is expected to exceed $130 billion by 2030, potentially reaching $400 billion by 2047.



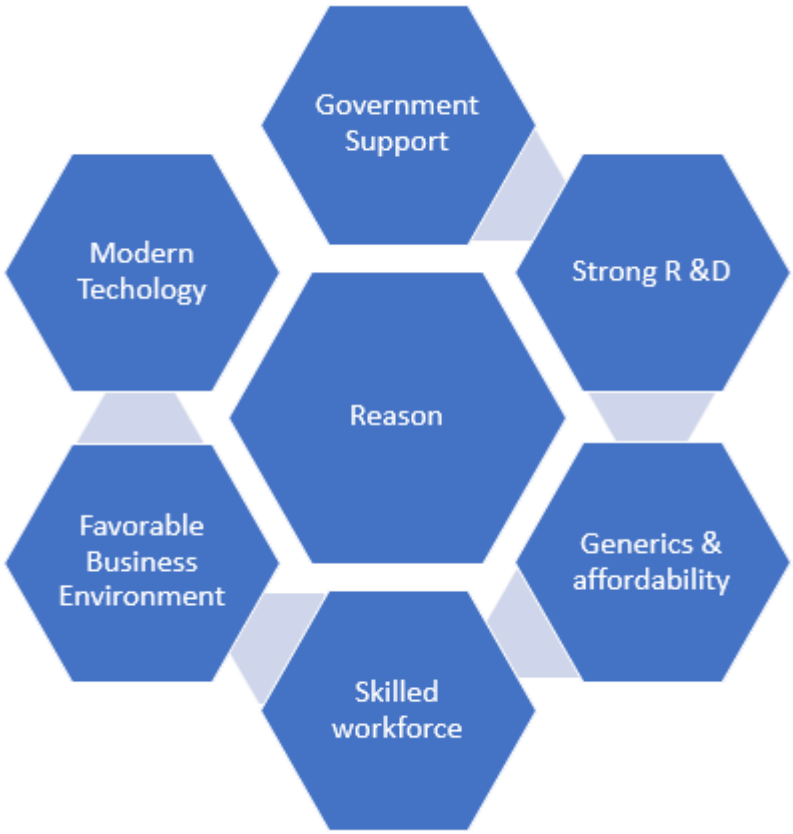
What factors led to the growth of Indian pharma sector?

- **Overhauling of Patent law**- India's Patents Act has been instrumental in shaping the country's pharma landscape.
- India had a product patent regime for all inventions under the Patents and Designs Act 1911.
- In 1970, the government introduced the new Patents Act, which excluded pharmaceuticals and agrochemical products from eligibility for patents.

Patent rights were introduced in India for the first time in 1856 and, in 1970, the Patent Act 1970 ("the Patents Act") was passed, repealing all previous legislations.

- **Reverse engineering** – The lack of protection for product patents enabled Indian companies to produce the same drugs through reverse engineering.

After the WTO Trade-Related Aspects of Intellectual Property Rights (TRIPS), in January 1, 1995, India amended patent laws to introduce product patents for pharmaceuticals, providing 20 years protection to inventions.



- **Research and development** - the patent era in Pharma industry, with 60-65% of R&D budget allocated to process engineering and reverse engineering until the 2000s. After 2005, 30-35% is now focused on innovative research.

What are the impacts of COVID 19 pandemic on Indian pharma?

- **Vaccine supplier** - India was at the forefront of the global vaccine, drug and supportive materials like PPE during COVID 19.
- **Vaccine Achievements** :
  - First indigenous DNA vaccine, ZyCoV-D (Zydus Lifesciences).
  - First protein sub-unit vaccine, Corbevax (Biological E).
  - First mRNA vaccine, Gemcovac (Gennova Biopharma)
  - World's first intranasal Covid-19 vaccine, iNCOVACC (Bharat Biotech).

- **Rapid response** – Indian pharma companies showcased their ability to produce vaccines and repurpose drugs at fast pace and high volume.
- **Rise of Indian pharma companies –** Serum Institute of India has become the largest player vaccine producer, and became part of Coalition for Epidemic Preparedness Innovations (CEPI) network.

What are the challenges facing Indian pharma?

- **Enforcement of intellectual property rights -** Draft Patents (Amendment) Rules, 2023, have raised concerns among experts, fearing they may hinder the timely availability of affordable, high-quality generic drugs.
- **Quality assurance** - Maintaining uniform quality throughout the pharmaceutical

supply chain poses a significant challenge for India.

- **Regulatory adherence** - Managing intricate regulatory demands can be a heavy burden for pharmaceutical firms, especially for small and medium-sized enterprises.
- **Shortage of skilled talent** - There is an increasing need for qualified professionals in the pharmaceutical sector, which proves difficult to satisfy."

What are the growth opportunities?

- **Future technologies** - Artificial intelligence (AI), internet of things (IoT) and big data analytics will bring significant improvements in manufacturing, quality, and research in pharma sector.
- **Biologics** - India's emerging biopharma sector aims to emulate the global leadership of generic drugs and vaccines with Biosimilar Biologics.
- **Advanced treatments** - Precision medicine and personalised treatments like CAR-T cell therapy will create demand for diverse range of drugs and medicine.
- **Expanding health coverage -** Emergence of healthcare tools like telemedicine, and AI are enhancing diagnostics, replacing traditional paper files, and expanding access to healthcare.

In 2001, ISRO facilitated medical consultations between rural hospitals in Andhra Pradesh and Chennai.

In 2023, the telemedicine market in India was valued at $2.5 billion. By 2032, it is expected to reach $16.9 billion, with a compound annual growth rate (CAGR) of 23.88 per cent.

- **Growth of medical tourism** – India’s medical tourism is valued at around Rs 1 trillion in 2024, with a projected CAGR of 17.2%, which will create demand for pharma goods.

Currently, 7.3 million tourists annually from West Asia, Africa, Southeast Asia.

- **Expanding middle class** - By 2030, 140 million additional households will be classified as middle-class, driving a 3-4x increase in healthcare spending.
- **Digitization** - Hospitals are increasingly using digital platforms like Ayushman Bharat Digital Health Mission to cover a larger population and provide more personalised services through data-driven insights.
- **Increasing investment** - India’s healthcare sector, which now attracts $5-6 billion in annual investment, is projected to reach $285 billion by 2028, implying growth at twice the pace of GDP.
- **Improved insurance penetration** - India’s health insurance coverage has increased from around 25 % in 2013 to 65 % in 2023, but 35 per cent of the population (around 500 million people) remain uninsured.
- **Increasing in NCD burden** - The burden of diseases such as diabetes,

cardiovascular conditions, and cancer is projected to rise from 169 million today to 226 million by 2030.

What are the government initiatives for Pharma sector?

- **Medical device parks** - Budget for the promotion of medical device parks was raised to Rs. 150 crore (US$ 18 million) for FY25.
- **PLI scheme for pharmaceuticals** - Production Linked Incentive is given for pharma industry with Rs. 15,000 crore (US$ 2.04 billion) from 2020-21 to 2028-29.
- **Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)** - Quality generic medicines at affordable prices through Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJK).
- **Strengthening of pharmaceutical industry (SPI)** -Support for existing Pharma clusters and MSMEs to improve productivity, quality, and sustainability.
- **Promotion of bulk drug parks** - World-class infrastructure to reduce manufacturing costs and make India self-reliant.
- **FDI liberalization** - 100% FDI is allowed under automatic route for greenfield pharmaceuticals.

What lies ahead?

- Standardisation of technology and digitisation of records will be significant to aid the growing pharma sector.
- Innovation will be the key, to grow from its current $50-odd billion value to $130 billion by 2030.

Reference

Business Standard | India pharmacy of the world

SHANKAR IAS PARLIAMENT
Information is Empowering