



Biopharmaceutical Alliance

For Prelims: [European Union](#), Biopharmaceutical Alliance, [Neighbourhood First Policy](#), [Vaccine Maitri](#), [World Health Organization](#), [Belt and Road Initiative](#)

For Mains: [Vaccine diplomacy](#), Strengthening Global Health Security, Global public health and international relations.

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Why in News?

Recently, South Korea, India, the United States, Japan, and the [European Union \(EU\)](#) have launched the **Biopharmaceutical Alliance** to address drug supply shortages and enhance supply chain resilience in the wake of the [Covid-19 pandemic](#).

- The inaugural meeting took place in San Diego, California during the **Bio International Convention 2024**.

What is the Biopharmaceutical Alliance?

- **About:** The Biopharmaceutical Alliance is a strategic partnership alliance aims to ensure a steady and secure supply of biopharmaceutical products worldwide and aid in [vaccine diplomacy](#).
 - It aims to **coordinate bio policies, regulations, and research and development** support measures among participating countries.
 - The initiative originated from discussions between **South Korea and the U.S. and expanded to include Japan, India, and the EU**. By collaborating, the member countries hope to build a system that can withstand future global health crises.
- **Need: The alliance was formed in response to the drug supply shortages experienced during the Covid-19 pandemic. The pandemic highlighted the need for a reliable and sustainable supply chain for biopharmaceuticals.**
 - By aligning bio policies, and regulations, the alliance promotes a cohesive approach to biopharmaceutical development.
- **Operating Mechanism:**
 - **Implementation:** The member countries will start implementing the agreed coordination of bio policies and research support.
 - **Supply Chain Mapping:** Developing a comprehensive map of the pharmaceutical supply chain to identify and mitigate vulnerabilities.
 - **Ongoing Collaboration:** Continued collaboration and dialogue among the participating countries to ensure the alliance's goals are met.

Key Drug Shortages During the Covid-19 Pandemic

- The Covid-19 pandemic led to widespread shortages in several critical healthcare areas. **Shortages of Covid-19 vaccines affected vaccination campaigns worldwide.** The

lack of vaccines slowed down the global response to the pandemic.

- Essential drugs, like [Remdesivir](#), faced shortages, impacting the treatment of severe Covid-19 cases. These shortages led to challenges in managing patient care during peak infection periods.
- During the Covid-19 pandemic, there were significant shortages of several critical drugs, including: [Antibiotics](#) like amoxicillin and penicillin, which are essential for treating bacterial infections.
- The rise in Covid-19 cases caused a spike in [demand for medical oxygen](#). Many countries struggled to meet the increased need for **medical oxygen**, essential for severe respiratory symptoms.
- There was a global scarcity of [Personal Protective Equipment \(PPE\)](#), including masks, gloves, and gowns. The PPE shortages posed significant risks to frontline healthcare workers, affecting their safety and ability to care for patients.

How Can Global Vaccine Diplomacy Address Drug Supply Shortages?

- **Historical and Current Contexts: Historically, Western powers dominated health aid, influencing global health initiatives.**
 - Currently, **Russia, China, and India have transitioned from aid recipients to major vaccine producers**, signalling a shift in global health dynamics.
- **Strategic Approaches of Global Vaccine Diplomacy:**
 - **Russia's Technology Transfer: Russia** has strong research and development (R&D) capabilities but **limited production and distribution capacity**. It utilised technology transfer to outsource vaccine production to countries in Asia, Latin America, and Eastern Europe.
 - Technology transfer not only promoted sales but also enhanced Russia's soft power among developing countries.
 - **India's Mass Production:** The country's vaccine diplomacy was characterised by the production of **60% of the world's vaccines** even before the pandemic and is known as the "**pharmacy of the world**" due to its large volume of pharmaceutical production.
 - With a robust manufacturing base, India swiftly scaled up production of Western-invented vaccines, focusing on both donations and commercial sales through initiatives like [Vaccine Maitri](#).
 - Between January and April 2021, India exported more than **46 million doses to 65 countries**, with nearly **80% of these being sold rather than donated**.
 - India donated vaccines to geopolitically important countries while selling to wealthier nations to cover manufacturing costs. It focused on neighbouring countries ([Neighbourhood First Policy](#)) and regions with significant Indian diaspora.
 - India is playing a key role in vaccine diplomacy, addressing concerns of vaccine nationalism and inequity in supply. The [World Health Organization \(WHO\)](#) has criticised developed countries for hoarding vaccines, while many nations are turning to India to bridge the accessibility gap.
 - **China's Comprehensive Investment:** China extensively invested in vaccine development, production, and distribution, prioritising **African and ASEAN countries to align with the Belt and Road Initiative**.
 - **Pakistan became the largest beneficiary of China's vaccine aid**, reflecting

geopolitical rivalry with India.

- **BRICS Interactions:** [BRICS countries](#) are interconnected in the vaccine industry. For example, Russia outsourced production to China and India when it received a large order from Brazil.
- China conducted clinical trials in Brazil and Russia supplied API to Brazil and India for [Covishield](#) production.

▪ **Vaccine Diplomacy to Mitigate Drug Supply Shortages:**

- Vaccine diplomacy can foster collaboration between countries. This can lead to sharing of raw materials and resources to streamline production across the supply chain. Improved communication and coordination to anticipate and address potential shortages.
- Vaccine diplomacy can expand vaccine production capacity by offering **technology or production licences to other countries**, encouraging the creation of **new manufacturing hubs and freeing up existing facilities** for other medications.
 - Existing vaccine production facilities can be repurposed to manufacture essential drugs, diversifying supply chains.
- Reduces dependency on single-source suppliers, mitigating risks of supply disruptions during health crises.

Bio International Convention 2024

- The Bio International Convention 2024, also known as BIO 2024, recently **concluded in San Diego, California**.
- The event is the **biggest gathering for biotechnology**, with over 18,500 industry leaders from around the world. It includes researchers, business professionals, investors, and representatives from public pharmaceutical companies, biotech startups, academia, non-profits, and government.

Read more: [India as a Net Exporter of Medical Consumables](#)

Drishti Mains Question:

Q. How can the Biopharmaceutical Alliance contribute to mitigating drug supply shortages and addressing future health crises?

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