

GOVERNMENT POLICIES & INTERVENTIONS (HEALTH)

Indian Pharmaceutical Industry and Drug Safety

In Context: Reports of drugs manufactured in India causing severe harm and dozens of patient deaths from across the world continue to trickle in.

Controversial reports on drugs manufactured in India

- **Anaesthetic drugs:**
 - ✓ Latest of the reports is the deaths of two patients in Sri Lanka who were administered Indian-made anaesthetic drugs.
- **Eye drops:**
 - ✓ Just last month, eye drops manufactured in India had caused eye infection in about 30 patients and blindness in 10 in Sri Lanka.
 - ✓ While anaesthetic drugs made in India causing deaths are a first in the recent past, eye drops causing infections, blindness and even deaths were reported a few months ago in the United States, with the Atlanta-based Centers for Disease Control and Prevention (CDC) finding a highly drug-resistant bacteria in them.
- **Cough syrups:**
 - ✓ The series of adverse reports against drugs produced in India began last year when the World Health Organization (WHO) linked the deaths of at least 70 children in Gambia from acute kidney injury to cough syrups.
 - The culprit ingredient in the syrups was diethylene glycol and ethylene glycol — deadly chemicals used as a cheaper substitute for propylene glycol — that should never have been found in any medicine.
 - ✓ Soon after the deaths in Gambia, cough syrups made in India and containing the two deadly chemicals killed 18 children in Uzbekistan in December 2022.
 - ✓ Indian-made cough syrup was again in the news when WHO flagged the contaminated drugs found in the Marshall Islands and Micronesia; the contamination was identified by the Australian regulator.

Indian Pharmaceutical industry

- **The Pharmacy of the World:**
 - ✓ The Indian Pharmaceutical industry is the third largest in the world by volume.
 - The Indian Pharmaceutical Industry has been using its powers very responsibly.
 - It has made a name for itself and India is being called “The Pharmacy of the World” in some circles.
- **Export:**
 - ✓ India exported pharmaceuticals worth Rs 175,040 crore in the financial year 2021-22, including Bulk Drugs/Drug Intermediates. Also, India is one of the major producers of Active Pharma Ingredients (API) or bulk drugs in the world.
 - ✓ India exported Bulk Drugs/Drug Intermediates worth Rs 33,320 crore in the financial year 2021-22.
- **Imports:**
 - ✓ However, the country also imports various Bulk Drugs/ APIs for producing medicines from various countries.
 - Most of the imports of the Bulk Drug/APIs being done in the country are because of economic considerations.
- **What is driving the growth?**
 - ✓ **Talent pool:**
 - India has a huge talent pool with trained pharmaceutical professionals having degrees in B Pharmacy, D Pharmacy, M Pharmacy.
 - ✓ **Generic drugs:**
 - The ability of the pharmaceutical industry to develop generic drugs at a much-reduced price is mainly due to trained professionals in the industry.
 - ✓ **Manufacturing:**
 - India has a huge manufacturing base of pharmaceutical products giving it way more flexibility in producing generic drugs.
 - India is home to 3000 drug companies and more than 10,000 manufacturing units.
- **Potential of the Indian Pharmaceutical Industry:**
 - ✓ According to the Indian Economic Survey 2021, the pharmaceutical industry in India is expected to reach USD 120-130 Billion by 2030.
 - ✓ **Industries related to the pharmaceutical sector:**
 - The other industries related to the pharmaceutical sector like biopharmaceuticals, bio-services, bio-agriculture, bio-industry, and bioinformatics are likely to reach USD 150 Billion in 2025 as compared to USD 70 Billion in 2020.

- ✓ According to EY and FICCI, Innovation and R&D, Healthcare Delivery, Manufacturing & Supply Chain, and Market Access are the opportunities that will drive growth in the years to come.

Challenges

- **Safety of drugs:**
 - ✓ Except for some customary inspections, the Indian drug regulator has so far failed to institute measures to make sure drugs produced in India for export and domestic use are safe.
- **Failing the quality tests:**
 - ✓ According to a Central Drugs Standard Control Organization (CDSCO) survey in 2014-2016, about five per cent of Indian drugs, several of them manufactured by large pharma companies, failed the quality test.
 - ✓ Independent studies suggest that this figure could be much higher.
 - ✓ The country's pharma industry has largely been in denial over quality-related concerns expressed by national and international observers.
- **Costs of production:**
 - ✓ The cost of production in India is 50 percent less than in developed nations, but it is still around 18 percent higher than China.
 - ✓ This is attributable to raw materials being 25-30 percent costlier, electricity being 20 percent more expensive, and other costs such as financing, logistics, transportation, etc., being 30 percent more expensive.

Regulation of Drugs in India

- **Drugs and Cosmetics Act, 1940:**
 - ✓ The Act regulates the import, manufacture, and distribution of drugs in India.
 - ✓ The primary objective of the act is to ensure that the drugs and cosmetics sold in India are safe, effective and conform to state quality standards.
 - ✓ The Drugs and Cosmetics Act, 1940 was amended by the Drugs & Cosmetics (Amendment) Act, 2008 to provide for more stringent penalties for manufacture and trade of spurious and adulterated drugs.
- **New Drugs, Medical Devices and Cosmetics Bill, 2022:**
 - ✓ To accommodate changing requirements and encourage the adoption of new technology, the Ministry of Health and Family Welfare released a draft bill in July 2022 to replace the existing Drugs and Cosmetics Act 1940.
 - ✓ This act governs drug importation, production, and distribution across the country.
- **Central Drugs Standard Control Organization:**
 - ✓ It is the apex department of the Central Drugs Standard Control Organization (CDSCO) of the Government of India.
 - ✓ CDSCO is a regulatory body for Indian pharmaceuticals and medical devices.
 - ✓ It comes under the Ministry of Health and Family Welfare.
- **Drugs Controller General of India:**
 - ✓ Drugs Controller General of India (DCGI) is the head of department of the Central Drugs Standard Control Organization of the Government of India
 - ✓ It is responsible for approval of licences of specified categories of drugs such as blood and blood products, IV fluids, vaccines, and sera in India.
 - ✓ DCGI also sets standards for manufacturing, sales, import, and distribution of drugs in India.

Way ahead

- India needs to make sure that inspection records and reviews of drug applications are made public, and put all generics manufacturers through the same tests as companies making new drugs.
- Doubts about Indian drugs will have dangerous ripple effects.
- India can continue to be the pharmacy of the global south only if the regulator begins to behave like a watchdog to ensure drug safety, and not as a facilitator for the pharma industry.

International Relations

India and Vietnam Defence Ties

IN CONTEXT: India gifted the **indigenously-built in-service missile corvette INS Kirpan** to Vietnam to enhance its naval capabilities.

What is a Corvette?

- A corvette is the smallest type of naval ship, falling below the frigate's warship class. It is amongst the most agile ships along with missile boats, anti-submarine ships, coastal patrol crafts, and swift attack naval vessels.
- Corvettes date back to the 18th and the 19th century when they were extensively used in the naval warfare duels that were fought at high seas.

About INS Kirpan

- INS Kirpan is a Khukri class missile corvette displacing 1,350 tonnes and was commissioned into the Navy in 1991.

- The Kirpan and Shield were main weapons of Sikhs The design of the sword and the shield is taken from "The Journal of Indian Art and Industry vol. VI" reproduced from the specimen preserved in the Lahore museum, which was displayed in the Indian and colonial exhibition of 1886.
- It has a displacement of close to 1,400 tonnes, a length of 91 metres, a beam of 11 metres and is capable of speed in excess of 25 knots.
- The ship is fitted with a medium range gun, 30 mm close range guns, chaff launchers and surface-to-surface missiles.

India-Vietnam Defence Relations

- **Background:** The deepening of the defence ties has been a gradual process nonetheless. Vietnam was the first country in the Southeast Asian region with whom India had signed a Strategic Partnership Agreement in 2007, which from 2016 onwards after the visit of Prime Minister to Vietnam has been elevated to a 'Comprehensive Strategic Partnership'.
 - In the early 2000s, both sides also signed a defence protocol through which Vietnam could procure military helicopters and equipment for the repair of Vietnamese aircraft.
- **Joint Vision on Defence Cooperation:** A Memorandum of Understanding on Defence Cooperation signed between the Ministries of Defence in 2009 and the Joint Vision on Defence Cooperation signed by the Defence Ministers in 2015 provided the institutional framework.
- **Visit of India's Defence Minister in 2022:** It led to the signing of a new "**Joint Vision Statement on India-Vietnam Defence Partnership towards 2030**" and a "Memorandum of Understanding on Mutual Logistics Support".
 - Both Ministers also agreed for early finalisation of the \$US 500 million Defence Line of Credit extended to Vietnam.
- **Diversified Engagement:** Apart from the cooperation between the Ministries of Defence of the two sides, this engagement has diversified to wider military-to-military dialogue and exchanges, training programme and bilateral exercises.
 - Cooperation in United Nations Peacekeeping Operations is another active area of our cooperation. Defence industrial collaboration is another area in defence relations.
 - In 2022, 12 High Speed Guard Boats built by Indian manufacturer M/s Larsen & Toubro were handed over to Vietnam.
- **Bilateral Military Exercises:** Bilateral military exercises are held periodically.
- Bilateral defence engagements have expanded over a period of time to include wide-ranging contacts between the two countries, including Defence Policy Dialogues, military to military exchanges, high level visits, capacity building and training programs, ship visits and bilateral exercises.

Significance of Vietnam for India

- **Act East Policy:** Vietnam has always been a critical partner for India in its Southeast Asian diplomacy, both under its Look East policy and now in the era of the Act East policy. India was the only country to have supported Vietnam's invasion of Cambodia in 1978. This had also stalled the process of India becoming a dialogue member in the ASEAN.



- **Potential Regional Power:** India realises that Vietnam is a potential regional power in South East Asia with great political stability and substantial economic growth. Its average 7% annual economic growth is very attractive.
 - ✓ Even during the worst period of pandemic, its economic growth remained commendable at 3% while several other nations registered negative growth.

- **Countering China:** The wariness of other Southeast Asian countries when it comes to the growing influence in Southeast Asia of external powers like the US, Australia, India among others to balance a rising China is clearly visible, it is Vietnam which openly supports the idea of countries like the US, India taking more interest in the challenges that the region is facing.
- **Valuable Partner:** Vietnam though also is keeping its relations with China intact, given the economic benefits, but also does not shy away from calling out Beijing when needed. India has ongoing oil exploration projects with PetroVietnam, although China continues to object to India's oil exploration operations in areas offered by Vietnam but Vietnam has lent its full support to India in this regard. This indeed makes Vietnam a valuable partner and player in the Indo-Pacific.
- **Shared vision for Indo-Pacific:** India and Vietnam have agreed to strengthen bilateral cooperation in line with India's Indo-Pacific Oceans Initiative and ASEAN's Outlook on the Indo-Pacific in order to ensure shared security, growth and prosperity for the Indo-Pacific region.
 - ✓ Vietnam has mostly faced the brunt of Chinese aggression in the South China Sea since the 1970s — from China's occupation of Paracels in 1974, to the occupation of Spratlys in the 1980s. This threat has only intensified in recent times. This looming threat and Vietnam's reformed attitude and foreign policy orientation will only provide the much needed impetus to Vietnam to look at potential like-minded players in the Indo-Pacific like India.
- **India's Vision of Defence Exporter:** Another push to further boost the defence ties and defence industry collaboration has been for India's drive of establishing its place as a potential exporter in the defence sector globally.

Way Ahead

- The drivers for the growth of trade and commerce are both strategic and economic. Both the countries desire to do away from the dependence on China.
- The problem related to supply chain emerging in the recent years, has also pushed them to consider an alternative supply line. Moreover, both nations desire a stable, open, free and inclusive Indo-Pacific Ocean region. Thus, both have common objectives.
- India is pursuing the Act East Policy and is working to make the Indo-Pacific free and open, that will promote Security and Growth for All in Region (SAGAR).
- These make the prospects for further growth of trade and commerce between India and Vietnam bright in the coming period.

PRELIM FACTS

1. Research & Analysis Wing (RAW)

In context: The appointment Committee of Cabinet has approved the appointment of senior IPS officer Ravi Sinha as the chief of India's external intelligence agency Research and Analysis Wing (R&AW) for a period of two years.

- ✓ He replaces Samant Kumar Goel, who will complete his tenure on June 30, 2023.

Research and Analysis Wing (RAW)

- **About:**
 - ✓ Research and Analysis Wing (RAW) is India's premier intelligence agency and was created in 1968 to handle India's external intelligence affairs.
 - ✓ The chief of RAW is designated secretary (research) in the Cabinet Secretariat, which is part of the prime minister's office.
 - ✓ RAW reports directly to the prime minister instead of the Ministry of Defense.
 - ✓ Since its inception, RAW is credited with providing intelligence support to many significant operations on foreign soil.
- **History:**
 - ✓ Until 1968, the Intelligence Bureau (IB) was handling both the internal and external intelligence.
 - ✓ After the 1962 border war with China, the need for a separate external intelligence agency was felt. During that conflict, our intelligence failed to detect Chinese build up for the attack.
 - ✓ In 1968, Prime Minister Indira Gandhi appointed R. N. Kao as the first director of RAW.
- **Structure of RAW**
 - ✓ R&AW has been organised on the lines of the CIA. The head of R&AW is designated Secretary (R) in the Cabinet Secretariat.
 - ✓ The Secretary (R), is under the direct command of the Prime Minister, and reports on an administrative basis to the Cabinet Secretary, who reports to the Prime Minister.

2. The International Day of Yoga

In context: the International Day of Yoga is celebrated with fervour across the globe.

- ✓ The International Day of Yoga is marked annually on June 21 on a global scale since 2015.
- ✓ An invaluable gift of ancient Indian tradition, yoga has emerged as one of the most trusted means to boost physical and mental well-being.
- ✓ This year, the theme for International Yoga Day is "Yoga for Vasudhaiva Kutumbakam," which beautifully encapsulates our collective aspiration for "One Earth, One Family, One Future."

3. Women 20 Summit.

In context: Recently, as a part of India's G20 Presidency, the Women 20 (W20) Summit held in Mahabalipuram, Tamil Nadu.

Theme- 'Women-Led Development- Transform, Thrive and Transcend'

What are the Key Highlights of the W20 Summit?

- ✓ Discussions on breaking the invisible barriers and biases that prevent women from reaching higher positions and leadership roles in various fields were held.
- ✓ Government initiatives such as Self Help Groups(SHGs), PM Mudra Scheme and GeM portal which allow women access to market and finance are highlighted.
- ✓ Gender disparities in economic participation are highlighted as women often face inequalities in accessing economic opportunities, including financial resources, markets, and trade networks.
- ✓ Participants have discussed systemic barriers, such as lack of access to credit, limited property rights, and discriminatory practices, which hinder women's economic empowerment.
- ✓ Celebration of strength, resilience, and progress in women's empowerment was witnessed .

What is W20?

- ✓ W20 is an official engagement group under the G20.
- ✓ It was established in 2015 with the aim of focusing on gender equity and women's empowerment.
- ✓ First W20 Summit was held during Turkey's G20 Presidency in 2015.

ANSWER WRITTING

Q. 'Disaster Management' is not confined to 'disaster response' alone. In this context, elaborate on how the government of India has brought about a change in the approach to disaster management from a relief-centric to a holistic and integrated approach.

INTRODUCTION: There has been a remarkable shift in the approach, thought, and focus from a relief-centric approach to a more proactive, holistic, and integrated approach covering the entire gamut of disasters encompassing prevention, mitigation, preparedness, response, relief, reconstruction, and rehabilitation for the management of disasters through an improved disaster. It is a change in the way of thought process. It refers to a shift from reactive (relief centric) to a proactive approach (response centric).

A paradigm shift in the Indian context

- ✓ Traditionally, disasters in India have been addressed after the incident has occurred, for instance, the Bhopal gas tragedy (1984) or the Latur earthquake (1993).
 - ✓ The severe damages incurred due to the Orissa Super Cyclone (1999) served as a wake-up call for the Indian government. The impacts of the Bhuj Earthquake (2001) and the catastrophic devastation caused by the Indian Ocean Tsunami (2004) revealed the major weaknesses in the system of disaster management in the country.
1. National Disaster Management Act 2005: The Government of India took a defining step by enacting the Disaster Management Act, 2005.
 - ✓ The Act envisaged the establishment of a dedicated institutional structure for disaster management in India and strengthening disaster risk reduction efforts across the nation. It mandated the formation of the National Disaster Management Authority (NDMA), State Disaster Management Authorities (SDMAs), and District Disaster Management Authorities (DDMAs).
 - ✓ It also proposes the development of a national plan for disaster management. For disaster research and training purposes, the establishment of NIDM was envisaged.
 - ✓ Specific funds like Disaster Response Fund at national (National Disaster Response Fund), state (State Disaster Response Fund) and district (District Disaster Response Fund) level and Disaster Mitigation Fund at national (National Disaster Mitigation Fund), state (State Disaster Mitigation Fund) and district (District Disaster Mitigation Fund) level were set up as part of the Act. This helped in consolidating disaster efforts.
 2. National Disaster Management Plan, 2015: The plan provides a framework and direction to the government agencies for disaster management and risk reduction.
 3. Regular conferences: The annual conference of Relief Commissioners/Secretaries to the Department of Disaster Management of States and UTs is regularly organized before the onset of the southwest monsoon to review the status of preparedness for the monsoon and to discuss other disaster management related issues.
 4. Promoting a culture of prevention and preparedness: To deal with the minor intensity cyclones in Odisha, the Indian Red Cross Society (IRCS) is managing 75 multi-purpose cyclone shelters constructed in the region to house the affected community during disasters. But in inter-disaster periods, the shelters are used to "train communities for preparedness and Disaster Risk Reduction (DRR) activities.
 - ✓ "The Red Cross" has trained communities in the vicinity of cyclone shelters in first aid, search, and rescue, disaster preparedness, management of cyclone shelters, etc.
 - ✓ Every cyclone shelter has a task force trained in first aid, search & rescue and a 30-40 community members committee manages these multi-purpose cyclone shelters."
 5. Disaster Management inbuilt in developmental plans: The new developmental programs and projects are incorporating disaster-resilient specifications in the design and construction. The NITI Aayog is giving due weightage to these factors while allocating resources.

6. Technology used in forecasting: India has partnered with the World Meteorological Organisation (WMO), Pacific Tsunami Warning System, and other regional and global institutions for better utilization of ICT tools that need to be used for data receptions, forecasting, and timely dissemination.

7. Mainstreaming Disaster Risk Reduction in Developmental Planning: The Integrated Watershed Management Programme, by the Department of Land Resources, Government of India, aims "to restore the ecological balance by harnessing, conserving and developing degraded natural resources such as soil, vegetative cover, and water.

- ✓ The outcomes are prevention of soil run-off, regeneration of natural vegetation, rainwater harvesting, and recharging of the groundwater table" enabling multi-cropping and the introduction of diverse agro-based activities. (Department of Land Resources)
- ✓ Similarly, the MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) has also been extensively used not only to provide livelihood security but also to create flood mitigation structures like dykes, reservoirs, and rejuvenation of canals and natural water systems.
- ✓ Thus through MGNREGA, the economic vulnerability of the population is addressed as well as disaster prevention and mitigation measures are getting incorporated.

Conclusion

The National Disaster Management Plan (NDMP) takes into consideration all the phases and provides a framework and direction to the government agencies for all phases of the disaster management cycle. India has considerably enhanced its capabilities in disaster management. The effective implementation of NDMP is of crucial importance in making India disaster-resilient while India pursues the goals of sustainable development.

MCQs

- Which of the following initiatives is/are a part of India's bilateral relationship with the USA?
1. Initiative on Critical and Emerging Technology (iCET)
2. The Preparedness and Resilience for Emerging Threats (PRET) Initiative
3. Markets in Crypto Assets (MiCA)
How many pair is/are correct from the above statement?
a) **Only 1** b) Only 2
c) Only 3 d) None
- With reference to the Phonons, consider the following statements:
1. Vibration energy can only be exchanged in the form of phonons.
2. Each phonon represents the vibration of millions of atoms within a material.
3. Scientists have successfully split phonons paving the path for a new type of quantum computer called linear mechanical quantum computers.
How many statements given above are correct?
a) Only 1 b) Only 2
c) **Only 3** d) None
- Considered the following statement:
1. INS Kirpan is a Khukri class missile corvette.
2. It is indigenously-built by India.
Which of the above statements given above is/ are correct?
a) Only 1 b) Only 2
c) **Both 1 and 2** d) None
- Considered the following statement:
1. International Day of Yoga is celebrated with across the globe June 22.
2. This year, the theme for International Yoga Day is "Yoga for Vasudhaiva Kutumbakam,"
Which of the above statements given above is/ are correct?
a) Only 1 b) Only 2
c) **Both 1 and 2** d) None
- Considered the following statement regarding Musi river.
1. It originates from the hills of Ananthagiri in Rangareddy District
2. it joins river Krishna at Nalgonda District near Vazirabad.
Which of the above statements given above is/ are correct?
a) Only 1 b) Only 2
c) **Both 1 and 2** d) None
- With reference to the Hindu Kush Himalayas, consider the following statements:
1. It is considered the third pole due to the presence of the largest volume of ice and snow outside of the Arctic and Antarctica.
2. Mongolia is also part of the Hindu Kush Himalayan region.
Which of the statements given above is/are correct?
a) Only 1 b) Only 2
c) **Both 1 and 2** d) None
- Recently, Indian Prime Minister will visit the 11th Century Al-Hakim mosque, restored with the help of the Dawoodi Bohra community. It is located at?
a) Iran b) Iraq
c) Afghanistan d) **Egypt**
- Who has been awarded a prestigious German prize for his literary work?
a) **Writer Salman Rushdie**
b) Writer Rakesh Rushdie
c) Writer Salman khursid
d) Writer Rakesh Khursid
- Considered the following statement:
1. Leadership in Energy and Environmental Design (LEED) is one of the most popular green building certification programs used worldwide.
2. Its aim is to help building owners and operators be environmentally responsible and use resources efficiently
Which of the statements given above is/are correct?
a) Only 1 b) Only 2
c) **Both 1 and 2** d) None
- Recently, Wihu Kuh Festival was in news which is celebrated by Tangsa tribe belongs to which state?
a) **Arunachal Pradesh**
b) Assam
c) Nagaland
d) Sikkim