

WEEKLY UPDATES – (5th June – 11th June)

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INTERNATIONAL RELATIONS

India & Germany Submarine Deal

Context: India and Germany discussed the progress of a deal for the procurement of six advanced conventional submarines by the Indian Navy under Project-75I.

Key Highlights

- The submarine deal could become a “flagship project”.
- Both nations want to intensify military cooperation with other branches of the Navy and the Air Force.
- This was the first visit of a German Defence Minister to India since 2015.

Project-75I

- Project 75 is a significant initiative undertaken by the Indian government in collaboration with foreign manufacturers to build advanced submarines for the Indian Navy.
- P-75 (I) submarine project is listed in Phase I of the Indian Navy’s 30 Year indigenous submarine construction plan approved by the Cabinet Committee on Security (CCS) on 13 Jul 1999.
- The plan envisages the construction of 24 submarines indigenously along with public and private industries, of appropriate designs in two phases.
- Project-75(I) envisages indigenous construction of six modern conventional submarines (including associated shore support, Engineering Support Package, training and spares package) with contemporary equipment, weapons & sensors including Fuel-Cell based AIP (Air Independent Propulsion Plant), advanced torpedoes, modern missiles and state of the art countermeasure systems.

Significance

- The project would aid in boosting the core submarine/ship building industry.
- It is one of the Largest ‘Make in India’ Projects. It will facilitate faster and more significant absorption of technology and create a tiered industrial ecosystem for submarine construction in India.
- It Ensures Self-Reliance and reduces current dependence on imports and gradually ensures the dependability of supplies from indigenous sources.
- It will also greatly enhance the manufacturing/industrial sector, especially the MSME by development of an industrial eco-system for manufacture of associated spares/systems/equipment related to submarines.

India, U.S. Review Export Control Regulations

Context: India and the U.S. pledged to streamline their export control regimes for critical technologies at the inaugural India-U.S. Strategic Trade Dialogue (IUSSTD).

Key Highlights

- IUSSTD focused on ways in which both governments can facilitate the development and trade of technologies in critical domains such as semiconductors, space, telecom, quantum, AI, defence, bio-tech and other.
- Both sides reviewed the relevant bilateral export control regulations with the objective of building and diversifying resilient supply chains for these strategic technologies.

India-US Strategic Trade Dialogue (IUSSTD)

- India-US Strategic Trade Dialogue (IUSSTD) is a key mechanism to take forward the strategic technology and trade collaborations envisaged under the India-US initiative on Critical and Emerging Technologies (iCET).
- The iCET was conceived as an initiative which will be spearheaded by the National Security Councils of the two countries to expand partnership in critical and emerging technologies. The two most prominent aims of the iCET are to elevate and expand strategic technology partnerships and defense industrial cooperation between India and the US.
- The two sides reviewed ongoing cooperation in multilateral export control regimes and agreed to share best practices and focused on ways in which both governments can facilitate the development and trade of technologies in critical domains such as semiconductors, space, telecom, quantum, AI, defence, bio-tech and others.
- Both sides agreed to enhance awareness among the industry, academia and other stakeholders about the export control regimes through workshops and other activities.
- The two sides also reviewed the relevant bilateral export control regulations with the objective of building and diversifying resilient supply chains for these strategic technologies.
- They acknowledged that the dialogue would be instrumental to enabling co-production, co-development and enhanced industrial collaborations in critical technologies.

POLITY

Centre Mulling Equal Share in Property to ST Women

Context: The Centre is considering a notification under the Hindu Succession Act to apply beneficial provisions to the Scheduled Tribe women who profess Hinduism to enable them to inherit an equal share in the properties of their fathers or Hindu Undivided Families.

- Rajya Sabha Member P. Wilson made a representation pointing out that the benefit of equal inheritance had so far been denied to the women of the Schedule Tribes who professed Hinduism.

Disputed Provision

- Section 2(2) of the Act excludes these women, which results in the denial of their equal rights to inherit their father's or Hindu Undivided Family (HUF) properties.

Important Case Law

- ✓ **Kamla Neti vs Special Land Acquisition Officer and Others:** The Supreme Court had directed the Centre to consider whether an amendment was necessary to withdraw the exemption under the Hindu Succession Act in so far as the applicability of its provisions to the Scheduled Tribes was concerned.

What is Hindu Succession Act, 1956?

- The Hindu Succession Act, 1956 is an Act relating to the succession and inheritance of property.
- This Act lays down a comprehensive and uniform system that incorporates both succession and inheritance.
- This Act also deals with intestate or unwilled (testamentary) succession.
- This Act combines all the aspects of Hindu succession and brings them into its ambit.
- The 1956 Act was amended in September 2005 and women were recognised as coparceners for property partitions arising from 2005.
- The law applies to ancestral property and to intestate succession in personal property, where succession happens as per law and not through a will.

ECONOMICS

Retail Inflation Likely Eased in May

Context: Economists estimate that consumer inflation may have eased further last month due to moderation in food prices; on a sequential basis, however, retail inflation is expected to have inched up 0.4% in May compared with a 0.2% decline in April.

Important Highlights

- India's consumer inflation could moderate further from April's 18-month low of 4.7%. The food price rise likely to have cooled further in May even as prices of some items like milk, rice and pulses moved up on a month-on-month basis.
- The National Statistical Office will release the Consumer Price Index (CPI).
- Rice and Wheat prices increased 10% and 8% in May, compared with a year ago.
- On a sequential basis, the index inched up to 0.4% in May compared to a 0.2% decline in the month before.

Consumer inflation

Inflation measured by consumer price index (CPI) is defined as the change in the prices of a basket of goods and services that are typically purchased by specific groups of households.

Consumer price indexes (CPIs)

Consumer price indexes (CPIs) are index numbers that measure changes in the prices of goods and services purchased or otherwise acquired by households, which households use directly, or indirectly, to satisfy their own needs and wants.

RBI Holds Rates, Vows to Keep Price Stability

Context: MPC keeps repo rate unchanged at 6.50%; RBI forecasts real GDP growth for 2023-24 at 6.5%, projects CPI inflation to average 5.1% this fiscal year.

Important Highlights

- The Reserve Bank of India's Monetary Policy Committee (MPC) decided unanimously on Thursday to keep the policy repo rate unchanged at 6.50%.
- The MPC also decided to remain focused on withdrawal of accommodation to ensure that inflation progressively aligns with the target, while supporting growth.

Repo Rate

- Repo rate is the rate at which the Reserve Bank of India (RBI) lends to other banks.
- The commercial banks make a repurchase agreement with the RBI and sell the G-secs and buy back at a different rate on the agreed price.
- The increased repo rate will discourage banks to borrow from the RBI and lending to the customers. This in turn will reduce the liquidity and demand in the market. It is part of the contractionary monetary policy.
- On the other hand, decreased repo rate will encourage banks to borrow and lend to customers increasing the liquidity and demand in the market. This is a part of the Expansionary Monetary Policy.

GOVERNANCE

Govt. Hikes Kharif MSP

Context:- The Centre has set the minimum support price (MSP) for paddy sown in the kharif or monsoon season at ₹2,183 per quintal, an increase of ₹143 a quintal from last year's figure.

Important Highlights

- The 2023-24 MSPs for 17 kharif crops and variants were approved at a meeting of the Cabinet Committee on Economic Affairs (CCEA).
- the Centre said that its aim was to ensure reasonably fair remuneration for the farmers and encourage crop diversification, several farmers' organisations said the increase would not cover the rising input costs.
- The MSP for moong is ₹8,558 a quintal, an increase of ₹803 from last year. The MSP for tur or arhar has been set at ₹7,000 a quintal, which is estimated to be 58% above the cost of production.

MSP

- Minimum Support Price (MSP) is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices.
- The minimum support prices are announced by the Government of India at the beginning of the sowing season for certain crops on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- MSP is price fixed by Government of India to protect the producer - farmers - against excessive fall in price during bumper production years.

Kharif Crop

Kharif crops are the crops that are sown in the rainy season, from June to September.

Paddy

Maize

Millets

Pulses

Oilseeds

Cotton

Sugarcane

508 Districts in Country Are Free of Manual Scavenging

Context: Centre has maintained in recent Parliament sessions that there are no manual scavenging deaths and attributed those to 'hazardous cleaning of sewers and septic tanks'. Budget makes no allocation for manual scavengers rehabilitation scheme

Important Highlights

- The Union Social Justice and Empowerment Ministry has now said that only 508 of the 766 districts in the country have been declared free of manual scavenging.
- The data were revealed in a booklet the Ministry.
- According to the scheme for rehabilitation of manual scavengers, the 58,000 identified sewer workers have been given abone-time cash payout ofb₹40,000 each.
- In addition, around 22,000 of them have been connected to skills training programmes. Subsidies and loans are available to any of them wishing to set up their own business.
- The scheme for rehabilitation of manual scavengers has now been merged with the NAMASTE scheme for 100% mechanisation of sewer work.
- The Union Budget for 2023-24 showed ₹100 crore allocation for the NAMASTE scheme and no allocation for the rehabilitation scheme

Manual Scavenging

Manual scavenging is a dehumanizing practice that involves the manual cleaning and handling of human excreta from dry latrines, sewers, septic tanks, railway lines, and other such places, typically using basic tools like brooms.

India banned the practice under the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (PEMSR).

Namaste Scheme (National Action for Mechanized Sanitation Ecosystem)

- It was launched in 2022 as a Central Sector Scheme.
- The scheme is being undertaken jointly by the Ministry of Housing and Urban Affairs and the Ministry of Social Justice & Empowerment (MoSJE) and aims to eradicate unsafe sewer and septic tank cleaning practices.

Objective of the Scheme:

- Zero fatalities in sanitation work in India.
- All sanitation work is performed by skilled workers.
- No sanitation workers come in direct contact with human faecal matter.

Govt. To Spend ₹2,980 Cr. On Coal, Lignite Exploration

Context: The Cabinet Committee on Economic Affairs (CCEA) on Wednesday approved the continuation of a central sector scheme for “Exploration of Coal and Lignite” with an estimated outlay of ₹2,980 crore from 2021-22 to 2025-26.

Important Highlights

- The approval will provide an outlay of Rs.1650 crore for Promotional (Regional) Exploration and Rs.1330 crore for Detailed Drilling in Non-CIL areas.
- Approximately, 1300 sq. km area will be covered under Regional exploration and approximately 650 sq. km area will be covered under Detailed exploration.
- Exploration for Coal and Lignite is required to prove and estimate coal resources available in the country which helps in preparing detailed project report to start coal mining.

About the Exploration of Coal and Lignite Scheme

- ✓ **Aim:** To explore and estimate coal resources in the country, facilitating the preparation of detailed project reports for coal mining.
- ✓ **Stages:** Under this scheme, exploration for Coal and Lignite is conducted in two broad stages:
 - Promotional (Regional) Exploration
 - Detailed Exploration in Non-Coal India Limited blocks.

India Emerged as The World's 2nd Largest Producer of Crude Steel

Context: India currently ranks as the World's 2nd Largest Producer of Crude Steel with the production of crude steel at 133.596 MT. It surpassed Japan in 2018. China remains the global leader in crude steel production.

Initiatives for Steel industry:

- Steel Scrap Recycling Policy for promoting the scientific processing and recycling of ferrous scrap.
- National Steel Policy 2017 set the targets of achieving a total crude steel capacity of 300 MTPA and total crude steel demand/production of 255 MTPA by 2030-31.
- Policy for providing preference to Domestically Manufactured Iron and Steel Products (DMI & SP Policy)
- Production Linked Incentive Scheme for domestic production of specialty steel has been approved in 2021.

BIODIVERSITY & ENVIRONMENT

56 Flapshell, Black Turtles Dead

Context: Fifty-six turtles were burnt to death after a fire broke out on five acres of wetland at Payyanki, near Cheruvathur, in Kasaragod in Kerala on Sunday.

Important Highlights

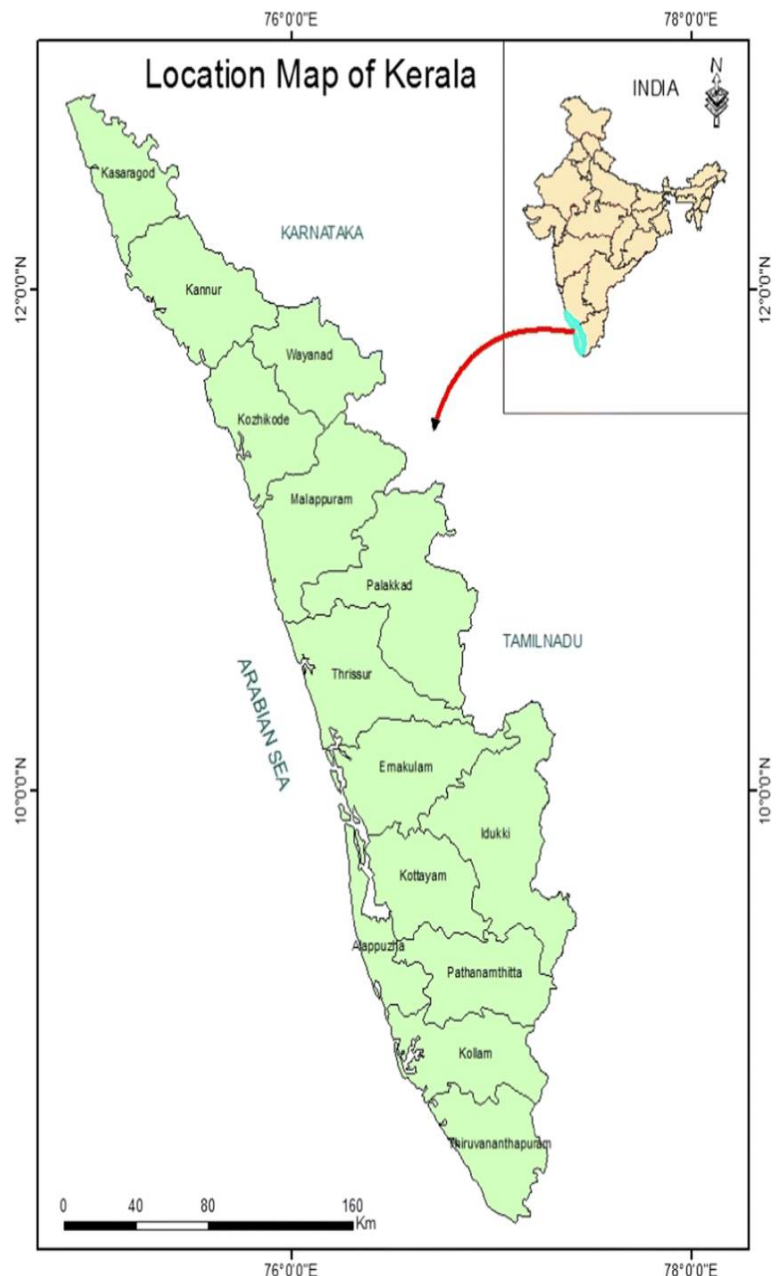
- Twenty-two Indian flapshell and 34 black turtles, which come under Schedule I and Schedule II of the Wildlife Protection Act, were burnt to death.
- A case had been registered under Section 9 of the Wildlife Protection Act.

Indian flapshell turtles

- The Indian flapshell turtle is a freshwater species of turtle and is found in many states.
- The “flap-shelled” name stems from the presence of femoral flaps located on the plastron. These flaps of skin cover the limbs when they retract into the shell.



- It is a relatively small soft-shell turtle with a carapace length of up to 350 millimetres.
- They live in the shallow, quiet, often stagnant waters of rivers, streams, marshes, ponds, lakes and irrigation canals, and tanks.
- Scientific Name: *Lissemys punctate*
- **Conservation Status**
 - IUCN Red List: Vulnerable



- CITES: Appendix II
- Wildlife (Protection) Act, 1972: Schedule I

Black turtles

- A freshwater species and there are 29 species of freshwater turtles and tortoises found in India.
- Scientific Name: *Nilssonina nigricans*.
- **Conversation Status**
 - IUCN Red List: Critically Endangered.
 - CITES: Appendix I.
 - Wildlife (Protection) Act, 1972: No legal protection.



5th June: 50th Anniversary of The World Environment Day

Context: WED has been led by United Nations Environment Programme (UNEP) since its inception in 1973. World Environment Day, held annually on 5 June, brings together millions of people from across the globe, engaging them in the effort to protect and restore the Earth. This year marks the event's 50th anniversary.

World Environment Day 2023

- The 50th anniversary of World Environment Day will be hosted by Côte D'Ivoire, with the theme of "solutions to plastic pollution".
- Ministry of Environment, Forest and Climate Change (MoEF&CC) has launched Amrit Dharohar and Mangrove Initiative for Shoreline Habitats and Tangible Incomes (MISHTI) initiatives.

About World Environment Day (WED)

- Observed on 5th June every year.
- World Environment Day (WED) was established by the UN General Assembly (UNGA) in 1972 on the first day of the Stockholm Conference on the Human Environment.
- It was first established by the United Nations General Assembly in 1972.
- Over 150 countries participate in various activities to celebrate this day.
- World Environment Day is an important day to raise awareness and encourage action for the protection of our planet.
- In 1974, the first WED was held with the theme "Only One Earth".

GEOGRAPHY

Cyclone Biparjoy

Context: Cyclone 'Biparjoy' has rapidly intensified into a severe cyclonic storm, with meteorologists predicting a "mild" monsoon onset over Kerala and "weak" progress beyond southern peninsula under its influence. It is the first storm brewing in the Arabian Sea this year.

Key Highlights

- It is likely to move nearly northwards and intensify into a very severe cyclonic storm. It would then move north-westwards during the subsequent three days.
- However, the IMD has not yet predicted any major impact on countries adjoining the Arabian Sea, including India, Oman, Iran and Pakistan.
- Scientists say cyclonic storms in the Bay of Bengal and the Arabian Sea have been intensifying rapidly and retaining their intensity for a longer duration due to climate change.
- According to a study ‘Changing status of tropical cyclones over the north Indian Ocean’, the Arabian Sea saw a significant increasing trend in the intensity, frequency, and duration of cyclonic storms and very severe cyclonic storms during the 1982-2019 period.
- “The increase in cyclone activity in the Arabian Sea is tightly linked to the rising ocean temperatures and increased availability of moisture under global warming. The Arabian Sea used to be cool, but now it is a warm pool,” said Roxy Mathew Koll, Climate Scientist at the Indian Institute of Tropical Meteorology.
- Scientist said the southern peninsula will get rain under the influence of the cyclonic storm and a low-pressure system developing in the Bay of Bengal.
- However, further progress of the monsoon beyond the southern peninsula will happen after the cyclone degenerates.
- The powerful weather system in the Arabian Sea may spoil the advancement of the monsoon deep inland. Under their influence, the monsoon stream may reach coastal parts but will struggle to penetrate beyond the Western Ghats.

SCIENCE AND TECHNOLOGY

Rare Higgs Boson Decay Observed in Large Hadron Collider (Lhc) Experiments

Context: Physicists working with the Large Hadron Collider (LHC) particle-smasher at CERN, in Europe, reported that they had detected a Higgs boson decaying into a Z boson particle and a photon. This is a very rare decay process that tells us important things about the Higgs boson as well as about our universe.

Important Highlights

✓ The new result

- Because it is so heavy, the Higgs boson is an unstable particle that decays into lighter particles. We can't always say which combination of particles it will decay into. However, the theory that describes the properties of fundamental particles has clearly predicted the probability that it will take a given path.
- For example, this theory, called the Standard Model, says that a Higgs boson will decay to a Z boson and a photon 0.1% of the time. This means the LHC needed to have created at least 1,000 Higgs bosons to have been able to spot one of them decaying to a Z boson and a photon.
- As it happens, the Z boson is also unstable. According to Martin Bauer, an associate professor at the Institute for Particle Physics Phenomenology, Durham University, Z bosons decay to two muons some 3% of the time. If the detectors at the LHC were looking for a pair of muons plus a photon created at the same time, Dr. Bauer estimated that the LHC would have had to create at least 30,000 Higgs bosons to observe the decay just once.

- This is why, even though the Higgs boson was discovered more than a decade ago at the LHC, it is only now that physicists are confirming this decay pathway.

✓ **Is this a new finding?**

- The two detectors that announced the new measurement, called ATLAS and CMS, had in fact looked for and found the decay before as well (in 2018 and 2020).
- On this occasion, however, the two teams combined their data, collected “between 2015 and 2018”, and as a result “significantly increased the statistical precision and reach of their searches,” according to a CERN statement.
- This significance is even now not high enough for the teams to claim a Higgs boson decayed to a Z boson and a photon with 100% certainty, reflecting the rarity of the decay pathway.

What is Higgs Boson?

- The Higgs boson is a type of boson, a force carrying subatomic particle.
- It carries the force that a particle experiences when it moves through an energy field, called the Higgs field, that is believed to be present throughout the universe.
- It is the fundamental particle associated with the Higgs field, a field that gives mass to other fundamental particles such as electrons and quarks.
- A particle’s mass determines how much it resists changing its speed or position when it encounters a force.
- Not all fundamental particles have mass.
- It has a short lifespan. Once it is created during the particle collisions, it sticks around for merely less than a trillionth of a billionth of a second or, more precisely, 1.6×10^{-22} seconds.

Satellites, AI to Help Certify Fields Growing Organic Cotton

Context: A satellite in space could be involved in determining whether your favourite cotton dress is organic. A new initiative by the European Space Agency (ESA) and Global Organic Textile Standard (GOTS) plans to combine data from satellite images and artificial intelligence (AI) to keep track of cotton certification in India.

Key Highlights

- The project is a collaboration between ESA, GOTS and AI company Marple that will automatically classify cotton fields in India in line with cultivation standards.
- ESA’s Business Applications and Space Solutions programme, the initiative will train AI models to ‘read’ ESA satellite data to identify and classify cotton fields in India.
- The initiative will identify cotton fields that meet predetermined standards as well as support those that demonstrate potential for a seamless transition to organic cultivation.
- Primary objective of the collaboration is to bolster the integrity of organic cotton by developing advanced risk assessment techniques and to prevent fraud throughout the supply chain.
- The programme has already had a successful pilot run in Uzbekistan, one of the world’s top cotton producers, in 2021.

- The data from the pilot project showed a 98% accuracy in differentiating between organic cotton fields and conventional ones.
- The project will be implemented across various cotton growing regions in India where organic cotton production plays a significant role. The first results are expected to be available in late 2023.

Indigenous Heavyweight Torpedo Successfully Tested

Context: The Navy test-fired an indigenously designed and developed heavyweight torpedo, Varunastra, with a live warhead against an undersea target.

Key Highlights

- Induction of Varunastra has begun after extensive trials.
- It will become the mainstay of antisubmarine torpedo for all Naval warships.
- It will replace the older torpedoes on all naval ships that can fire a heavyweight torpedo.
- Varunastra is a ship-launched anti-submarine torpedo and was designed and developed by the Naval Science and Technological Laboratory in Visakhapatnam under the Defence Research and Development Organisation.

Varunastra Features

- Varunastra torpedo is powered by an electric propulsion system with multiple 250 KWs silver oxide zinc (AgOZn) batteries.
- It can achieve speeds in excess of 74 km/h, weighs around 1.5 tonnes and can carry 250 kg of conventional warhead.
- This torpedo has more than 95 per cent indigenous content.
- It is the only torpedo in the world to have a GPS-based locating aid.
- It is an electrically-propelled anti-submarine torpedo capable of targeting quiet submarines, both in deep and shallow waters.



What are Torpedos?

They are self-propelled, underwater projectiles that can be launched from ships and aircraft. These are designed to detonate on contact or in close proximity to a target.

Will The WHO's 'Pandemic Treaty' Leave Out Antimicrobial Resistance?

Context: In late May, the latest version of the draft Pandemic Instrument, also referred to as the “pandemic treaty,” was shared with member states at the World Health Assembly.

Important Highlights

- Recently, the latest version of the draft Pandemic Instrument, also referred to as the “pandemic treaty,” was shared at the World Health Assembly (the decision-making body of WHO).

- While earlier drafts of the Pandemic Instrument drew on guidance from AMR policy, however, after the first round of negotiations, all of these insertions, are now at risk for removal.
- Work on the Pandemic Instrument began in December 2021 after the WHA agreed to a global process to draft and negotiate an international instrument in this regard.

About Pandemic Treaty

- It aims to prevent pandemics, save lives, reduce disease burden and protect livelihoods, through strengthening the world's capacities for preventing, preparing for and responding to, and recovery of health systems from, pandemics.
- It fosters on an all-of-government and all-of-society approach and laid out aspects on pandemic prevention, preparedness, and response.

Need of the treaty

- Enable countries to strengthen national, regional, and global capacities and resilience to future pandemics.
- Early detection and prevention of pandemics.
- Response to any future pandemics by ensuring universal access to medical solutions.