



# **APRIL, 2024**



**\*\*** Useful for **\*\*** 

CSE, ESE, PSUs, State Services Exams, SSC and Banking Exams

## 8<sup>th</sup> APRIL, 2024

## Right against adverse effects of climate change

 Context: Recently, in a significant ruling, the Supreme Court held that the Right against adverse effects of climate change is part of the right to life and the right to equality.

#### **Key Highlights:**

- A three-judge bench presided by Chief Justice of India D Y Chandrachud highlighted the following provisions which show that the Constitution recognizes the importance of the natural world:
  - Article 48A of the Constitution provides that the State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country.
  - 2. Clause (g) of Article 51A states that it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures. These are not justiciable provisions of the Constitution.
- The court determined that a stable and clean environment, unaffected by climate change's unpredictability, is essential for the full realization of the right to life.
- The failure of marginalized communities to adjust to or mitigate the impacts of climate change infringes upon their right to life (Article 21) as well as their right to equality (Article 14).

## **Suvidha Portal**

• **Context:** Since the announcement of General Elections 2024, over 73,000 applications have been received on Suvidha Portal.

#### **Key Highlights:**

• The Suvidha portal represents a technological advancement dedicated to upholding the principles

of openness, fairness, and transparency in elections, ensuring a fair playing field.

- This portal was developed by the Election Commission of India (ECI).
- It operates on first-come-first-served basis.
- It caters to permissions for organizing rallies, opening temporary party offices, door-to-door canvassing, video vans, helicopters, obtaining vehicle permits, distributing pamphlets.
- It provides a convenient online system for political parties and candidates to apply for permissions at anytime from anywhere. It has offline submission options also, which guarantee universal access.
- The Suvidha portal enhances the electoral process by offering real-time tracking of applications, updates on status, and SMS notifications. This improves both efficiency and transparency.
- It also supports the scrutiny of election expenditures by making permission data readily available. Thus, it fosters greater accountability and integrity.

#### Washington Treaty

• **Context:** Foreign Ministers of NATO have recently gathered at its headquarters in Brussels to mark 75 years since the signing of the Washington Treaty.

- The Washington Treaty, or North Atlantic Treaty, forms the basis of the North Atlantic Treaty Organization (NATO). It is a short treaty containing only 14 articles.
- The Treaty was signed in Washington, D.C. on 4 April 1949, by 12 founding members.
- The Treaty derives its authority from Article 51 of the United Nations Charter. This article reaffirms the inherent right of independent states to their individual or collective defence.
- It means that an attack against one Ally is considered as an attack against all Allies. This is at the heart of the treaty and is enshrined in Article 5.
- The Alliance has ensured peace, democracy and prosperity for its members, now counting 32 Allies and one billion people on both sides of the Atlantic

 Despite the change in the security environment in the last few decades, the original treaty has remained unchanged, and each ally has the potential to implement it according to their capabilities and circumstances.

## 9<sup>th</sup> APRIL, 2024

## **Oceanic Niño Index**

 Context: The US National Oceanic and Atmospheric Administration (NOAA) has predicted that there is a 83% chance that the Oceanic Niño Index (ONI) will move into a neutral range by April-June 2024. It is predicted that El Nino event will not take place due to ONI moving into neutral range.

#### **Key Highlights:**

- ENSO is measured by two indices- Oceanic Niño Index and Southern Oscillation Index- Oceanic Nino Index (ONI) is the primary indicator for monitoring the ocean part of El Niño-Southern Oscillation, or "ENSO". Southern Oscillation Index (SOI) is the primary indicator for monitoring the atmospheric part of ENSO.
- The ONI tracks the running 3-month average sea surface temperatures in the east-central tropical Pacific between 120°-170°W, near the International Dateline. It also determines whether they are warmer or cooler than average.

#### About El Nino and La Nina:

- El Nino and La Nina are two opposing climate trends that deviate from the normal conditions and normally run 9 to 12 months. El Nino is known as the warm phase and La Nina is known as the cold phase of ENSO.
- These events occur every 2 to 7 years on average. El Niño is more frequent than La Nina. They are together referred to as the El Niño-Southern Oscillation (ENSO) cycle by scientists.
- Both El Nino and La Nina have global effects on weather, wildfires, ecosystems and economics.

#### **Exercise Gagan Shakti**

• **Context:** Indian Air Force's (IAF) MiG-21 fighter planes are taking part in the ongoing pan-India exercise, Gagan Shakti-2024.

#### **Key Highlights:**

- It was last held in 2018, during which the IAF completed over 11,000 sorties during the two-phase air manoeuvres.
- It seeks to showcase IAF's capability to carry out high-tempo operations and involves all air bases and assets scattered across the country,
- Gagan Shakti-2024 is being conducted at various locations across the country, including the Pokhran Field Firing Range in Jaisalmer.
- The Indian Army provides logistics support for the mega exercise, facilitating a comprehensive pan-India movement of IAF personnel and ammunition in order to validate the Operational Rail Mobilisation Plan (ORMP) aspects of the IAF.

## 10<sup>th</sup> APRIL, 2024

## **Girl Empowerment Mission (GEM)**

• **Context:** NTPC Limited, India's largest integrated power company, is gearing up to launch the latest edition of Girl Empowerment Mission (GEM).

- It is a flagship Corporate Social Responsibility initiative, initiated as a pilot project in 2018 for children belonging to underprivileged sections of the society.
- The program aligns with the Government of India's Beti Bachao, Beti Padhao initiative and aims to tackle gender inequality by nurturing girls' imaginations and fostering their ability to explore opportunities.
- Under the mission a 1-month workshop for young girls during summer holidays is offered for their all-round upliftment and development.
- The workshop focuses on health, hygiene, safety, fitness, sports and yoga.

## **Peter Higgs**

• **Context:** Nobel prize-winning physicist Peter Higgs has passed away recently.

#### **Key Highlights:**

- Born in England on May 29, 1929
- He proposed the Higgs boson in 1964 which is also known as "the God particle" along with François Englert, and four other theorists to explain why certain particles have mass.
- He theorised that there must be a subatomic particle of a certain dimension that would explain how other particles — and therefore all the stars and planets in the universe — acquired mass.
- Scientists confirmed its existence in 2012 through the ATLAS and CMS experiments at the Large Hadron Collider (LHC) at CERN in Switzerland.
- Higgs' work helps scientists understand one of the most fundamental riddles of the universe: how the Big Bang created something out of nothing 13.8 billion years ago.
- Higgs won the 2013 Nobel Prize in Physics for his work, alongside Francois Englert of Belgium, who independently came up with the same theory.

## **Lavender Cultivation**

• **Context:** CSIR's scientific interventions have led to the phenomenal growth of lavender cultivation and development of lavender products.

#### **Key Highlights:**

- Lavenders are small evergreen shrubs with graygreen hoary linear leaves.
- The purple flowers are sparsely arranged on spikes at the tips of long bare stalks and produce small nutlet fruits.
- It is native to the lands surrounding the Mediterranean Sea and southern Europe through northern and eastern Africa and Middle Eastern countries to southwest Asia and southeast India.
- The variety of Lavender is highly suitable for cultivation in the rainfed temperate regions of India.

- The success of Lavender cultivation in J&K earned it the sobriquet, 'Purple Revolution'.
- In 2016, the central government launched the 'Aroma Mission' to boost cultivation of plants like lavender that have aromatic medicinal properties
- Lavender shows promising potential as a therapeutic and aromatic herb that can positively contribute towards India's economic and medical prospects.
- Kashmir's lavender is captivating both domestic and international markets.
- Lavender farming can prove profitable for farmers given a sustained demand and organised farmer activities.

## 11<sup>th</sup> APRIL, 2024

## CDP-SURAKSHA: Govt's new digital platform to disburse subsidies to horticulture farmers

• **Context:** Indian government has launched a new platform CDP-SURAKSHA. This platform will be employed for disbursing subsidies to horticulture farmers under the Cluster Development Programme (CDP).

- CDP-SURAKSHA stands for System for Unified Resource Allocation, Knowledge, and Secure Horticulture Assistance. This is a digital platform which will allow an instant disbursal of subsidies to farmers in their bank account by utilising the e-RUPI voucher from the National Payments Corporation of India (NPCI).
- It has features such as database integration with PM-KISAN, cloud-based server space from NIC, UIDAI validation, eRUPI integration, local government directory (LGD), content management system, geotagging, and geo-fencing.
- India's horticulture sector contributes nearly one-third to the agriculture gross value addition (GVA). This platform will push the growth of horticulture sector.

 It will provide subsidies to farmers at the time of purchasing the planting material unlike old system where a farmer had to buy planting materials on their own and then had to approach the officials concerned for the release of the subsidy.

#### **About** Cluster Development Programme (CDP):

- It is a component of the central sector scheme of National Horticulture Board (NHB).
- It was launched by the Ministry of Agriculture and Farmers Welfare (MoA&FW) in 2021.
- To leverage the geographical specialisation of horticulture clusters and promoting integrated and market-led development of pre-production, production, post-harvest, logistics, branding, and marketing activities.

#### **Tragic events in Himalayan ecosystem**

 Context: Ramon Magsaysay award winner and climate activist Sonam Wangchuk has recently announced 21-day climate fast to highlight the larger issue of the fragility of the Himalayan ecosystem.

#### **Key Highlights:**

- Ladakh comprises 97% indigenous tribes and tribes depend on farming and animal rearing for a livelihood. Apart from border issues, it also faces the damaging effects of climate change through floods, drought, landslides, greenhouse gases, and other pollutants.
- Since Ladakh became a Union Territory, many big infrastructure projects have been launched. For exthe Zojila tunnel (14.15 km long), the Kargil-Zanskar National Highway (230 km long) etc. Incidentally, all these areas are vulnerable to climate change-related disasters.
- Despite continued warning from geologists and ecologists, Uttarakhand, where all these tragedies occurred, has started many infrastructure projects. Further, an expert committee constituted by the Supreme Court has suggested limiting the number of pilgrims visiting the Char Dam Himalayan shrines.

However, pilgrim numbers have only increased every year.

- There are no proper scientific risk assessment, safety measures and geological and seismic analysis before starting infrastructural projects.
- National Mission for Sustaining the Himalayan Ecosystem (NMSHE) was started with the objective to develop a capacity to scientifically assess the vulnerability of the Himalayan region to climate change and continuously assess the health status of the Himalayan ecosystem. However, it could not fulfill its objective effectively.

## 12<sup>th</sup> APRIL, 2024

## **Invasive Alien Species**

• **Context:** Recently, it was found that the Invasive Chital invaded Andamans' forest cover, posing a threat to natural flora and fauna.

- The Convention on Biological Diversity (CBD) defines invasive alien species as 'species whose introduction and/or spread outside their natural past or present distribution threatens biological diversity'.
- These include animals, plants, fungi, and even microorganisms, and can influence all kinds of ecosystems.
- Invasive species act as disruptors in the food chain and disturb the balance of the ecosystem.
- In habitats where there is no competition, invasive species can dominate the entire ecosystem.
- For instance, the chital deer, native to mainland India, were introduced to the Andaman Islands by the British in the early 20th century. Having no natural predators or competitors, and being good swimmers, chital swiftly spread across the Andamans.
- The list of invasive wildlife in India is dominated by certain species of fish such as the African catfish, Nile tilapia, red-bellied piranha, and alligator gar, and turtle species such as the red-eared slider.

Current Affairs | Week-2 8th April - 14th April

 The red-eared slider (a turtle), native to North America, notoriously edges out local freshwater species, owing to its fast rates of reproduction, and the following competition for food.

## **Methanol**

 Context: The United States has recalled several lots of hand sanitisers and aloe gel due to toxic methanol content, citing health risks like nausea, coma, and even death.

#### **Key Highlights:**

- People who may come in contact with such toxic methanol content hand sanitisers are vulnerable to several side effects including "nausea, vomiting, headache, blurred vision, coma, seizures, permanent blindness, permanent damage to the central nervous system, or death.
- Methanol is the simplest alcohol (CH<sub>3</sub>OH) known as methyl alcohol.
- It is a chemical building block for several everyday products, including plastics, paints, car parts and construction materials.
- Methanol also is a clean energy resource used to fuel cars, trucks, buses, ships, fuel cells, boilers and cook stoves.

## 13<sup>th</sup> APRIL, 2024

## PSLV Orbital Experimental Module (POEM)

 Context: ISRO's PSLV-C58/XPoSat mission successfully deployed the XPoSat satellite and converted the PSLV's last stage into the POEM-3 module, leaving no debris in Earth's orbit.

#### Key Highlights:

• The PSLV Orbital Experimental Module is a platform that will help perform in-orbit experiments using the final stage of the Polar Satellite Launch Vehicle (PSLV).

- It was developed by the Vikram Sarabhai Space Centre (VSSC).
- It was used for the first time in the PSLV-C53 mission in June 2022. ISRO had POEM orbit the earth to perform in-orbit scientific experiments with various payloads onboard.
- POEM is powered by solar panels mounted on the fuel tank of the rocket's fourth stage and a lithium-ion battery.
  - 1. It has a navigation, guidance, and control (NGC) system to stabilise its altitude along with helium control thrusters.
  - 2. The NGC system has four Sun sensors, a magnetometer, and gyroscopes. It also has a telecommand system to communicate with the ground station.
  - 3. It communicates to ISRO's NavIC satellite constellation for navigation.

#### Achievement of POEM-3:

- ISRO's PSLV C-58 mission successfully launched the XPoSat satellite into a 650 km orbit and converted its fourth stage into the POEM-3 module at 350 km for experiments.
- It features nine payloads. POEM-3 completed 400 orbits and conducted several experiments over 25 days.
- After two months, POEM-3 re-entered Earth's atmosphere on March 21, 2024, disintegrating successfully with all objectives met.

#### Angara rocket

• **Context:** Russia successfully test-launched its Angara-A5 space rocket from the Vostochny Cosmodrome.

- The Angara-A5 is a 42.7-metre, three-stage rocket weighing about 773 tonnes and capable of carrying 24.5 tonnes into space.
- It is set to replace the Proton M as Russia's heavy-lift rocket.

- It is Russia's first post-Soviet space rocket
- Russia began the Angara project after the 1991 break-up of the Soviet Union as a Russian-made launch vehicle that would ensure access to space even without the Baikonur Cosmodrome, which Russia rents from Kazakhstan.
- The first Angara-A5 test flight took place in 2014, and another followed in 2020, both from Plesetsk in northern Russia. A partial test followed in 2021 that was a failure.

## 14<sup>th</sup> APRIL, 2024

#### **Global Hepatitis Report 2024**

• **Context:** Recently, the 2024 Global Hepatitis Report was released by the World Health Organization (WHO).

#### **Key Highlights:**

- According to the Report, 254 million people lived with hepatitis B and 50 million with hepatitis C in 2022 globally.
- The data shows that the estimated number of deaths from viral hepatitis increased from 1.1 million in 2019 to 1.3 million in 2022. Of these, 83% were caused by hepatitis B, and 17% by hepatitis C.
- Every day, there are 3500 people dying globally due to hepatitis B and C infections.
- Bangladesh, China, Ethiopia, India, Indonesia, Nigeria, Pakistan, the Philippines, the Russian Federation and Viet Nam, collectively shoulder nearly two-thirds of the global burden of hepatitis B and C.
- India accounted for the second-highest number of cases of hepatitis B and C in 2022 after China, with 3.5 crore infections with a total of 3.5 crore cases, India accounted for 11.6% of the total disease burden globally that year.

## **World Cybercrime Index**

• **Context:** Recently, an international team of researchers has compiled the 'World Cybercrime Index'.

- The 'World Cybercrime Index' identifies the globe's key cybercrime hotspots by ranking the most significant sources of cybercrime at a national level.
- The index was developed through a collaborative effort between the University of Oxford and UNSW Canberra.
- It is based on data collected from a survey involving 92 top global experts in cybercrime, who specialize in intelligence and investigations related to cyber activities.
- It ranks roughly 100 countries and identifies key hotspots according to various categories of cybercrime.
- The five major categories of cybercrime assessed by the study were technical products/services, attacks and extortion, Data/identity theft, Scams, cashing out/money laundering.
- Russia tops the list with the highest cybercriminal threat, followed by Ukraine, China, the USA, Nigeria, and Romania.
- The United Kingdom (UK) ranks at number eight in terms of cybercrime threat.
- India was ranked 10th in cybercrime, mostly involving scams that trick people into making advance payments.
- The study indicated that certain types of cybercrime were linked to specific countries. For ex- the U.S.A was predominantly connected with data and identity theft crimes, whereas crimes involving technical products or services frequently traced back to China.
- The study also found that countries that are cybercrime hubs "specialise" in particular categories. For ex-Russia and Ukraine are highly technical cybercrime hubs, whereas Nigerian cybercriminals are engaged in less technical forms of cybercrime.
- The worldwide economic impact of cybercrime is projected to significantly increase over the next four years, escalating from \$9.22 trillion in 2024 to \$13.82 trillion by 2028

## **Prerana Program**

• **Context:** Recently, the Secretary of the Department of School Education and Literacy (DoSEL) addressed the first alumni meeting of the Prerana Program.

- Prerana is an experiential and inspirational learning program for students with the best-in-class technology where heritage meets innovation.
- It is Launched by Department of School Education & Literacy, Ministry of Education, Government of India
- To offer a meaningful, unique, and inspiring experience to all participants and empowering them with leadership qualities.
- It is a week-long residential program for selected students of class IX to XII.
- PRERANA started in the pilot phase from January to February 2024 in the Vernacular school at Vadnagar, Mehsana, Gujarat. The 6th batch will start from 15th April 2024.
- In this phase, the Prerana program has been held for five batches of 20 participants each from five states and one Union Territory.
- Prerana combines experiential learning with cutting-edge technology, bridging traditional heritage with modern innovation.
- The curriculum is built around nine core values: Dignity and Humility, Valor and Courage, Hard Work and Dedication, Compassion and Service, Diversity and Unity, Integrity and Purity, Innovation and Curiosity, Faith and Trust, and Freedom and Responsibility.
- These themes aim to instill a deep respect for India's diverse culture and promote the philosophy of "Vasudhaiva Kutumbakam" (the world is one family).
- The day-wise program includes yoga, mindfulness, and meditation, alongside thematic experiential learning and engaging hands-on activities.
- Evening activities will include visits to ancient and heritage sites, inspirational film screenings, mission life creative activities, talent shows etc. ensuring a holistic learning approach.

