



WEEKLY CURRENT AFFAIRS

MAY, 2024

Week-2

08-14 May, 2024

★★ Useful for ★★

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

8th MAY , 2024

MQ-9B Predator Drones

- **Context:** The Defence Ministry recently approved the procurement of 30 MQ-9B Predator drones (SeaGuardian variant) from the US to enhance the surveillance capabilities of the armed forces.

Key Highlights:

- It is an unmanned aerial vehicle (UAV) that can perform flight operations either under remote control or autonomously.
- It is a version of the MQ-9 “Reaper”.
- It is the first hunter-killer unmanned aerial vehicle (UAV) built for prolonged surveillance at high altitudes.
- It is developed by General Atomics Aeronautical Systems (GA-ASI).
- The MQ-9B features integrated signals and communications intelligence systems. It consists of various custom sensors can be fitted to it as needed.
- It has two versions: the SkyGuardian and the SeaGuardian.
- It is capable of remaining airborne for around 35 hours.
- It is equipped with precision strike missiles. The MQ-9B has enhances capabilities in land and maritime surveillance, anti-submarine and anti-surface warfare, electronic warfare, and various expeditionary missions.
- It facilitates automatic take-offs and landings, integrates into civil airspace, and enhances real-time situational awareness in maritime environments for both military and civil authorities.
- It has carrying capacity of up to 5,670 kg and a fuel capacity of 2,721 kg. This boosts the operational capability of these drones.
- Unmanned armed vehicles play a crucial role at borders by providing real-time reconnaissance, target acquisition, and tracking of people and illegal activities through high-quality video feeds.

- They also enhance security and operational efficiency by supporting the armed forces in transporting essential supplies.

Carbon Farming

- **Context:** Amid growing environmental challenges and the quest for climate-resilient sustainable agriculture, the practice of carbon trading in the agriculture sector has become important around the world.

Key Highlights:

- The carbon farming approach aims to optimize carbon capture by utilizing practices that enhance the removal of CO₂ from the atmosphere and its storage in plant material and soil organic matter.
- Carbon farming is an agricultural method that integrates the management of carbon capture and storage into farming practices.
- It is designed to reduce greenhouse gas emissions, enhance the carbon content of soil, and improve overall agricultural productivity and ecosystem health.
- Carbon farming can involve multiple strategies and each practice is tailored to fit different agricultural landscapes and climatic conditions, making carbon farming versatile and widely applicable.

9th MAY , 2024

Global Biofuel Alliance

- **Context:** Recently, the Ministry of Petroleum and Natural Gas has stated that the Global Biofuel Alliance (GBA) has initiated a work plan. This plan concentrates on evaluating national contexts, formulating policy frameworks, and organizing biofuel workshops.

Key Highlights:

- The Global Biofuel Alliance (GBA) was launched on the sidelines of the 2023 G20 summit in New Delhi.
- The Alliance is focused on securing the supply of biofuels, ensuring affordability and sustainable production of biofuels.

- It aims at facilitating international cooperation and intensifying the use of sustainable biofuels. It aims to facilitate global biofuels trade and provide technical support for national biofuel programmes.
- It has been initiated by India, the United States, and Brazil. It has nine member countries: India, the US, Brazil, Argentina, Bangladesh, Italy, Mauritius, South Africa, and the UAE.
- **Organisation members:** The World Bank, Asian Development Bank, World Economic Forum, International Energy Agency, International Energy Forum, International Renewable Energy Agency, and International Civil Aviation Organization are among the organisations that have agreed to join the alliance.
- The LCA is caused by a gene mutation that prevents a protein, CEP290, from functioning properly which is critical for sight.
- Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) is a DNA sequence which is part of the bacterial defense system.
- Cas9 (CRISPR-associated) is the name of the protein that transfers resistance.
- It is an enzyme that acts like a pair of molecular scissors, capable of cutting strands of DNA.
- It allows researchers to easily alter DNA sequences and modify gene function.
- In 2020, Emmanuelle Charpentier and Jennifer A. Doudna was awarded the Nobel Prize in chemistry for discovering CRISPR-Cas9.

About Biofuel:

- It refers to renewable fuels derived from biomass—from plants or agricultural, animal, domestic, and industrial biowaste. Biofuels are significantly cleaner than the conventional fossil fuels.
- The International Energy Agency (IEA) forecasts a significant surge in biofuel production by 2050, projecting growth of 3.5-5 times, driven by global Net-Zero targets. This presents a substantial opportunity for India.
- In 2022, a record-breaking 171.2 billion liters of biofuels were procured worldwide, with India accounting for a mere 2.7%, or 4.6 billion liters. India also maintains its position as the third-largest ethanol producer globally, trailing only the United States (US) and Brazil.

CRISPR-Cas9

- **Context:** Scientists have used a human gene editing tool, CRISPR-Cas9, to restore vision in people with a rare form of inherited or congenital blindness.

Key Highlights:

- The trial was called “BRILLIANCE” and people who had a rare form of inherited blindness, known as Leber congenital amaurosis (LCA), participated in it.

10th MAY, 2024

Meditech Stackathon 2024

- **Context:** The Department of Pharmaceuticals launched the Meditech Stackathon 2024 in collaboration with Confederation of Indian Industry (CII).

Key Highlights:

- The Stackathon was aimed to address critical challenges, foster domestic manufacturing, and reduce import dependence, thereby positioning India as a global leader in medical technology.
- At present India ranks as the 4th largest market for medical devices in Asia and stands among the top 20 globally.
- India's MedTech industry is set to reach USD 50 bn by 2030 from the current USD 14 billion.

16th Finance Commission

- **Context:** The 16th Finance Commission invited suggestions from the general public, institutions and organisations on relevant issues for it and those related to its terms of reference.

Key Highlights:

- The advance cell for the 16th Finance Commission was established in 2022.
- Arvind Panagariya is appointed as the Chairman of Sixteenth Finance Commission. It shall make recommendations as to the following matters:
- The distribution between the Union and the States of the net proceeds of taxes and the allocation between the States of the respective shares of such proceeds;
- The principles which should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India and
- The measures needed to augment the Consolidated Fund of a State to supplement the resources of the Panchayats and Municipalities in the State on the basis of the recommendations made by the Finance Commission of the State.

11th MAY, 2024

Padma awards 2024

- **Context:** President Droupadi Murmu conferred Padma awards during a Civil Investiture Ceremony at Rashtrapati Bhawan in Delhi.

Key Highlights:

- Padma Awards are one of the highest civilian honors of India announced annually on the eve of Republic Day after the Bharat Ratna.
- The Award seeks to recognize achievements in all fields of activities or disciplines where an element of public service is involved.
- The award does not amount to a title and cannot be used as a suffix or prefix to the awardees' name.
- The awards are presented by the President of India.
- For 2024, the President had approved the conferment of 132 Padma awards, including two duo cases (in a duo case, the award is counted as one).
- The list comprises five Padma Vibhushan, 17 Padma Bhushan, and 110 Padma Shri awards.

Constructed Wetlands

- **Context:** Constructed wetlands are nature's solution for wastewater treatment in India.

Key Highlights:

- Constructed wetlands are engineered structures designed to replicate the functions of natural wetlands.
- They are composed of meticulously chosen vegetation, soil and water, orchestrated to facilitate a seamless process of purification.
- They are divided into two categories: subsurface flow (SSF) and surface flow (SF).
- SSF wetlands direct wastewater through gravel beds or porous media, promoting microbial activity that degrades organic matter.
- In contrast, SF wetlands demonstrate their aesthetic appeal above the water's surface, with gently flowing streams and lush vegetation.
- One such example is the Asola Bhatti Wildlife Sanctuary in Delhi, situated on the city's outskirts.
- Here, a constructed wetland system aids in purifying sewage from nearby settlements while also providing a sanctuary for diverse flora and fauna, thus contributing to regional biodiversity conservation.
- The Kolkata East Wetlands in West Bengal, designated as a Ramsar site, feature a vast network of natural and constructed wetlands.

National Technology Day

- **Context:** Recently, the Technology Development Board (TDB) of the Department of Science and Technology (DST) celebrated the National Technology Day (2024).

Key Highlights:

- It is celebrated annually on 11th May, dedicated to honouring the relentless efforts of scientists, engineers, and innovators who work tirelessly to advance technology and simplify our lives.

- The Rashtriya Vigyan Puraskar Awards, akin to the prestigious Padma awards, are announced annually on National Technology Day.
- Theme for 2024: 'Promoting Clean and Green Technologies for a Sustainable Future'.

12th MAY, 2024

FLiRT COVID-19 variant

- **Context:** The COVID-19 cycle has regained momentum with the emergence of new 'FLiRT' variants. KP.2 and KP1.1 are descendants of the Omicron JN.1 variant, which proliferated worldwide.

Key Highlights:

- The FLiRT variants are new strains of the SARS-CoV-2 virus that have emerged in the United States. They are distant relatives of the Omicron variant.
- Two main strains have been identified within the FLiRT group: KP.2 and KP.1.1.
- These variants were first detected in wastewater samples across the country and are descendants of the JN.1 lineage.
- Scientists are concerned that KP.2 and KP.1.1 may be more adept at evading the immune system due to mutations in their spike proteins.
- Factors such as waning immunity and suboptimal uptake of the latest COVID-19 vaccines raise concerns about a potential surge in infections during the summer.
- Symptoms associated with FLiRT variants largely mirror those of other COVID-19 strains, including fever, cough, fatigue, and respiratory difficulties.
- While vaccines remain effective against FLiRT variants, maintaining up-to-date booster shots is crucial to bolster protection against them.
- India's SARS-CoV-2 Genomics Consortium (INSACOG) has identified 238 cases of KP.2 and 30 cases of KP1.1 as of May 6. India has witnessed a resurgence in cases since early April, with a significant rise in positivity rates.

ASEAN-India Trade in Goods Agreement

- **Context:** The 4th Joint Committee meeting for the review of AITIGA (ASEAN-India Trade in Goods Agreement) was held in Malaysia

Key Highlights:

- It was signed and entered into force on 1 January 2010.
- Under the Agreement, ASEAN Member States and India have agreed to open their respective markets by progressively reducing and eliminating duties on 76.4% coverage of goods.
- In September 2022, both sides tasked the AITIGA Joint Committee to undertake the review with the aim of making the Agreement more trade facilitative and mutually beneficial.
- A total of eight Sub-committees have been constituted under the AITIGA Joint Committee for undertaking negotiations on different policy areas related to the Agreement.
- ASEAN is one of the major trade partners of India with a share of 11% in India's global trade.
- The bilateral trade stood at USD 122.67 Bn during 2023-24.
- The upgradation of AITIGA will further boost bilateral trade.

13th MAY, 2024

AlphaFold 3

- **Context:** AlphaFold 3, a tool developed by Google's DeepMind that predicts protein structures.

Key Highlights:

- AlphaFold is an AI tool developed by Google's DeepMind in 2018 to predict how proteins fold.
- It aims to identify the 3D shapes of proteins based on their amino acid sequences, which is crucial for understanding biological functions and disease mechanisms.
- The initial release in 2018 came five decades after the

protein-folding problem was identified. It has been followed by improved versions, including AlphaFold 2 and the latest, AlphaFold 3, which also models DNA, RNA, and other molecules.

- AlphaFold 3 has nearly 80% accuracy in predicting protein structures, showcasing significant advancements in the field.

India-EFTA Trade Deal

- **Context:** India secured a historic trade deal with the European Free Trade Association (EFTA), comprising Iceland, Liechtenstein, Norway, and Switzerland.

Key Highlights:

- The FTA envisions a goal of reaching \$100 billion in investments in India and creation of 1 million jobs within 15 years.
- This FTA is significant because India has agreed to include issues like environment and labor, which it has traditionally opposed in trade agreements.
- It is also unique as it includes a detailed investment chapter, which is missing in India's other recent FTAs with countries like Australia, UAE, and Mauritius. The investment chapter focuses on investment facilitation, not merely protection.
- India persuaded EFTA countries to try to raise foreign direct investment (FDI) to India by \$50 billion over 10 years, then another \$50 billion in the next 5 years.
- These rules codify an "obligation of conduct," which means EFTA countries must honestly try to reach these goals. However, they are not forced to achieve them. This sets a good example for negotiations with the UK, EU, and other countries.

About European Free Trade Association (EFTA):

- The European Free Trade Association (EFTA) is an intergovernmental organization set up for the promotion of free trade and economic integration to the benefit of its four Member States – Iceland, Liechtenstein, Norway, and Switzerland – and the benefit of their trading partners around the globe.
- It was founded by the Stockholm Convention in 1960.

Diamond League 2024

- **Context:** Neeraj Chopra kicks off 2024 Season with Silver at Doha Diamond League.

Key Highlights:

- Neeraj Chopra, the reigning Olympic and world champion in javelin throw, started his 2024 season on a strong note, securing a second-place finish at the Doha Diamond League 2024.
- His impressive throw of 88.36 m on his final attempt fell just 2 cm short of Czechia's Jakub Vadlejch, the reigning Diamond League champion and Tokyo 2020 silver medalist.

14th MAY, 2024

World Wildlife Crime Report 2024

- **Context:** The 2024 World Wildlife Crime Report was released by the United Nations Office on Drugs and Crime.

Key Highlights:

- This report provides insights into the illegal wildlife trade that occurred between 2015 and 2021.
- Rhinos, elephants, pangolins, cedars, rosewoods & agarwood most affected by illegal wildlife trade
- The 2024 report is the third edition, with earlier editions published in 2016 and 2020. It probes trends in the illicit trafficking of protected wildlife species.
- It also presents systematic analyses of wildlife crime harms and impacts, probes the factors driving wildlife trafficking trends, and takes stock of current knowledge about the effectiveness of the different types of intervention being pursued to resolve this problem.
- The report noted that wildlife trafficking persists worldwide despite two decades of concerted action at international and national levels.
- The document urged strong coherence and harmonisation across the trade chain, strong international cooperation and increased investment to build data and analytical capacity at national and international levels in order to close knowledge gaps.

India-Ghana Joint Trade Committee

- **Context:** The 4th Session of the India-Ghana Joint Trade Committee (JTC) concluded in Accra.

Key Highlights:

- India and Ghana agreed to work towards the operationalization of India's Unified Payment Interface (UPI) on Ghana's Ghana Interbank Payment and Settlement Systems (GHIPSS) within a period of 6 months.
- Both sides explored the possibility of signing Memorandums of Understanding (MoUs) on Digital Transformation Solutions and the local currency settlement system.
- Also, discussions were held on leveraging opportunities under the African Continental Free Trade Agreement (AfCFTA).
- Ghana holds significance as a trading partner for India in the African region, with bilateral trade amounting to USD 2.87 billion in 2022-23.
- India stands as one of the leading investors in Ghana, spanning sectors like pharmaceuticals, construction, manufacturing, trade services, agriculture, and tourism.

PM Surya Ghar Muft Bijli Yojana

- **Context:** The Union Government is preparing to train a workforce of 100,000 individuals in the installation and maintenance of solar panels to aid its initiative of assisting 10 million households in transitioning to solar energy.

Key Highlights:

- PM Surya Ghar Muft Bijli Yojana aims to provide free electricity to one crore households in India, who opt to install roof top solar electricity units.
- The households will be able to get 300 units of electricity free every month.
- The scheme provides for a subsidy of 60 percent of the solar unit cost for systems up to 2 kW capacity and 40 percent of additional system cost for systems between 2 to 3 kW capacity.
- The subsidy has been capped at 3 kW capacity.
- A Model Solar Village will be developed in each district of the country to act as a role model for adoption of rooftop solar in rural areas,
- Urban Local Bodies and Panchayati Raj Institutions shall also benefit from incentives for promoting Rooftop Solar (RTS) installations in their areas.
- The scheme provides a component for payment security for renewable energy service company (RESCO) based models as well as a fund for innovative projects in RTS.

