



# WEEKLY CURRENT AFFAIRS

**DECEMBER, 2022**

**Week-3**

**15-21 Dec., 2022**

★★ Useful for ★★

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

15<sup>th</sup> DECEMBER, 2022

## Surface Water and Ocean Topography (SWOT)

- **Context:** A NASA-led international satellite was launched recently from Southern California, on a major Earth science project to conduct a comprehensive survey of the world's oceans, lakes and rivers for the first time.

### Key Highlights

- SWOT, short for Surface Water and Ocean Topography, the satellite is needed more than ever as climate change worsens droughts, flooding and coastal erosion, according to scientists.
- About the size of an SUV, the satellite will measure the height of water on more than 90% of Earth's surface, allowing scientists to track the flow and identify potential high-risk areas.
- It will also survey millions of lakes as well as 1.3 million miles (2.1 million kilometers) of rivers.
- The satellite will shoot radar pulses at Earth, with the signals bouncing back to be received by a pair of antennas, one on each end of a 10-meter boom.

## India's first 5G enabled auto manufacturing unit

- **Context:** Bharti Airtel has partnered with Tech Mahindra to deploy a 'captive private network' at Mahindra & Mahindra's Chakan facility in Maharashtra. This is claimed to be the first 5G-enabled auto manufacturing unit in India.

### Key Highlights

- Airtel said that the network will result in improved speeds for software flashing – a critical operation for all vehicular dispatches – and allow managers to undertake multiple software flashing sessions in parallel, thereby reducing the turn-around time for an operation.

- The computerized vision-based inspection will be fully automated resulting in improved paint quality.
- Airtel has taken lead over the Adani Group which had bought spectrum during the auction earlier this year specifically to deploy private 5G networks.
- But Adani group has said that it has bought spectrum to develop its own private network to deploy at its business verticals including airport, ports and logistics, power generation, transmission, distribution, and various manufacturing operations.
- Airtel and Tech Mahindra's partnership shows the opportunity for collaboration between telcos and private enterprises.

### About private 5G network

- A private 5G network, also called a captive non-public network (CNPN) essentially is a network that is set up solely for a firm's own use.
- Unlike a public network, it is closed to external communication.
- The network relies on high-frequency, low-wavelength airwaves and is therefore ideal for institutions like factories, manufacturing plants, hospitals, universities etc.

16<sup>th</sup> DECEMBER, 2022

## Court Digitization Hubs

- **Context:** CJI DY Chandrachud Inaugurated 10 District Court Digitization Hubs in Odisha

### Key Highlights:

- Chief Justice of India D Y Chandrachud said that modernisation of judiciary is the need of the hour.
- A total of 15 DCDHs have now become functional in the state, with each catering to a neighbouring district, thus covering all 30 district courts.
- Initially, four District Court Digitization Centres (DCDC) were set up on a pilot basis in Cuttack, Ganjam, Sambalpur and Balasore districts on April 30, 2021.

- The objective of the DCDH would be to digitise the disposed of case records of the parent districts as well as that of the nearby assigned Districts.

## HPV Vaccine

- **Context:** National Technical Advisory Group on Immunization (NTAGI) recently announced that India will soon immunize girls aged 9-14 from HPV under a national vaccination program. The nationwide drive will begin by mid-May 2023.

### Key Highlights:

- The quadrivalent vaccine called Cervavac which will be used for the nationwide vaccination drive of adolescent girls is developed by the Serum Institute of India (SII).
- The approval of SII's vaccine was granted by the country's drug regulator (DGCI) in July 2022.
- The vaccines available in the market currently are priced at Rs 2,500-3,300 per dose but with the nationwide drive it will be priced at Rs 200-400 per dose.

### About Human papillomavirus (HPV):

- Human papillomavirus (HPV) is the most common sexually transmitted infection (STI).
- HPV can cause cervical and other cancers, including cancer of the vulva, vagina, penis, or anus. It can also cause cancer in the back of the throat (called oropharyngeal cancer). This can include the base of the tongue and tonsils.

## Warming of Arctic Region

- **Context:** Recently, the annual assessment of the region was done by the researchers which evaluated that the temperatures in the Arctic Circle have been rising much more quickly than those in the rest of the planet.

### Key Highlights:

- Temperatures in the Arctic Circle have been rising much more quickly than those in the rest of the planet,

transforming the region's climate into one defined less by sea ice, snow and permafrost and more by open water, rain and green landscapes.

- Nearly 150 experts from 11 nations compiled this year's assessment of Arctic conditions (the Arctic Report Card) which The National Oceanic and Atmospheric Administration have produced since 2006.

### About Arctic Region:

- It is commonly understood to refer to the region above the Arctic Circle, north of latitude 66° 34' N, which includes the Arctic Ocean with the North Pole at its centre.
- Eight Arctic States: Canada, Kingdom of Denmark, Finland, Iceland, Norway, Russia, Sweden, and USA form the Arctic Council.
- The Arctic is home to almost four million inhabitants, of which approximately one tenth are considered as indigenous people.
- The Arctic Ocean and its surrounding landmass has been a topic of immense interest and a high-priority area of research among the global scientific fraternity as well as of importance to policy makers.
- The Arctic influences atmospheric, oceanographic and biogeochemical cycles of the earth's ecosystem.

17<sup>th</sup> DECEMBER, 2022

## Recent GI Tags from Kerala

- **Context:** Kerala has been awarded five GI tags for its agricultural produce.

### Key Highlights

- Adding to the present collection of Geographical Indications (GIs), nine new items, including gamocha of Assam, Tandur red gram of Telangana, Raktsey Karpo apricot of Ladakh, and Alibag white onion of Maharashtra, have been given the coveted GI tags.
- With this, the total number of GI tags in India comes to 432.

- Of these, 401 are Indian-origin products, 31 foreign-origin.
- The top five states holding the maximum number of GI tags are Karnataka and Tamil Nadu followed by Kerala (35), Uttar Pradesh (34), and Maharashtra (31).
- Recently, the government supported the promotion of GIs by approving an expenditure of Rs 75 crore for three years for their advertising at awareness programmes.
- The night trials are necessary to validate new technology on the missile, as well as new equipment added to the NCBM.
- The missile uses a three-stage solid-fuelled engine and is capable of striking targets at ranges up to 5,000 km with a very high degree of accuracy.
- Existing variant Agni IV is capable of hitting targets at a range of 4,000 km while Agni-III has a range of 3,000-km, and Agni II can fly up to 2,000-km.
- The successful test of Agni-5 is in line with India's stated policy to have 'credible minimum deterrence' that underpins the commitment to 'No First Use'.

### About Geographical Indication (GI) Tag

- Recognised by the World Trade Organization (WTO), GI is used to denote the geographical territory from which a product, be it agricultural produce, natural product, or manufactured, conveys the assurance of quality, distinctiveness, and attributes that are unique to that specific geographic region/place of origin.
- India is a signatory to this convention, and enacted the Geographical Indications (Registration and Protection) Act, 1999, which came into effect on September 15, 2003.
- To protect the GI of goods, a GI registry has been established to administer the GI of Goods (Registration and Protection) Act, 1999, under the Controller General of Patents, Designs & Trademarks.
- The registration of a geographical indication shall be for a period of ten years, but may be renewed from time to time.

### Agni-V Missile

- **Context:** India recently successfully carried out night trials of Agni-V Nuclear-Capable Ballistic Missile (NCBM) which can hit targets beyond 5,000 km.

### Key Highlights

- The test was carried out to validate new technologies and equipment on the missile which is now lighter than before.
- In October last year, India carried out the successful launch of the surface-to-surface ballistic missile, Agni-5 from APJ Abdul Kalam Island, Odisha.

18<sup>th</sup> DECEMBER, 2022

### CSIR-Traditional Knowledge Digital Library (CSIR-TKDL)

- **Context:** The Indira Gandhi National Centre for the Arts (IGNCA) and the CSIR-Traditional Knowledge Digital Library (CSIR-TKDL) Unit signed a Memorandum of Understanding (MoU) for cooperation related to digitization and inclusion of information on traditional knowledge of India from manuscripts and traditional cultural expressions.

### Key Highlights

- MoU between IGNCA and CSIR-TKDL Unit will facilitate efforts towards protection and preservation of the manuscript knowledge for current and future times, through inclusion of the information into the TKDL database.
- This cooperation between the Parties is also expected to enable digitization and inclusion of non-written, oral and audio-visual materials related to traditional knowledge and traditional cultural expressions into the TKDL.
- Besides focused activities related to manuscripts and local practices, both organizations have also agreed to collaborate and undertake outreach and dissemination activities such as publications, seminars, conferences, workshops and exhibitions jointly, and also pursue research studies in areas of common interest.

## About Traditional Knowledge Digital Library (TKDL)

- The Traditional Knowledge Digital Library (TKDL) is a pioneering Indian initiative, jointly by the CSIR and Ministry of AYUSH, to prevent exploitation and to protect Indian traditional knowledge from misappropriation by way of wrongful Intellectual Property Rights.
- The TKDL contains Indian traditional medicine knowledge from classical/ traditional texts related to Ayurveda, Unani, Siddha and Sowa Rigpa, and Yoga techniques in a digitized format and is available in five international languages (English, French, German, Spanish and Japanese) to patent examiners.
- The TKDL is accessed by 15 patent offices worldwide for search and examination of evidences related to TK in patent applications filed at their offices.
- Recently, the Cabinet, Gol approved widening of the access of the TKDL to users, beyond patent offices, to stimulate R&D and innovation based on Indian TK.

## India to build 1700 km Highway eying China

- **Context:** In the next five years, the Central Government will build a 1,748 km long "frontier highway" close to the India-Tibet-China-Myanmar border in Arunachal Pradesh.

### Key Highlights

- The highway will be as close as 20 km from the international border.
- The two-lane highway called NH-913, will aim to stop infiltration in the border areas and defend against Chinese aggression.
- Out of 1748 km, nearly 800 km of the corridor will be greenfield as there is no existing road on these stretches.
- There will be some bridges and tunnels as well.
- There is also a proposal to develop inter-corridors in Arunachal Pradesh connecting the frontier highway.
- The highway will start from Bomdila and pass through

Nafra, Huri and Monigong. It will pass through Jido and Chenquenty, close to the China border and end at Vijaynagar, near the India-Myanmar border.

- Road transport minister Nitin Gadkari estimates that the project will cost around Rs 27,000 crore. However, the government is exploring ways to reduce the cost.
- It would give a big boost to the easy movement of defense forces as well as equipment to the border areas.

## EU adopts global minimum 15% tax on big business

- **Context:** Members of the European Union has agreed in principle to implement a minimum tax of 15% on big businesses.

### Key Highlights

- Last year, 136 countries had agreed on a plan to redistribute tax rights across jurisdictions and enforce a minimum tax rate of 15% on large multinational corporations.
- It is estimated that the minimum tax rate would boost global tax revenues by \$150 billion annually.
- EU members have agreed to implement a minimum tax rate of 15% on big businesses in accordance with Pillar 2 of the global tax agreement framed by the Organisation for Economic Cooperation and Development (OECD) last year.
- Under the OECD's plan, governments will be equipped to impose additional taxes in case companies are found to be paying taxes that are considered too low.
- This is to ensure that big businesses with global operations do not benefit by domiciling themselves in tax havens in order to save on taxes.
- Pillar 1 of the OECD's tax plan, on the other hand, tries to address the question of taxing rights.
- Large multinational companies have traditionally paid taxes in their home countries even though they did most of their business in foreign countries.
- The OECD plan tries to give more taxing rights to the governments of countries where large businesses conduct a substantial amount of their business.

- As a result, large U.S. tech companies may have to pay more taxes to governments of developing countries.

19<sup>th</sup> DECEMBER, 2022

## Sovereign Gold Bonds

- **Context:** RBI issues new tranche of Sovereign Gold Bonds.

### Key Highlights:

- The Reserve Bank of India announced that the issue price for the latest tranche of the Sovereign Gold Bond Scheme 2022-23, which will be open for subscription and has been set at Rs 5,409 per gramme of gold.
- In agreement with the Reserve Bank of India, the Indian government has decided to grant investors who apply online and pay for their applications using digital methods a discount of 50 rupees per gramme compared to the nominal value. The issuing price of a gold bond for these investors will be Rs. 5,359/- (Rupees Five Thousand Three Hundred and Fifty Nine only) per gramme.
- The sale of SGBs will take place through authorised post offices, Scheduled Commercial Banks (apart from Small Finance Banks, Payment Banks, and Regional Rural Banks), Stock Holding Corporation of India Limited (SHCIL), Clearing Corporation of India Limited (CCIL), and stock exchanges NSE and BSE.

### About Sovereign Gold Bonds scheme:

- **Launched in:** November 2015.
- **Objective:** To reduce the demand for physical gold and shift a part of the domestic savings (to purchase of gold) into financial savings.
- **Issuance:** The Gold Bonds are issued as Government of India Stock under the Government Securities (GS) Act, 2006.
- These are issued by the Reserve Bank of India (RBI) on behalf of the Government of India.
- The Bonds will be sold through Scheduled Commercial banks(except Small Finance Banks and

Payment Banks), Stock Holding Corporation of India Limited (SHCIL), Clearing Corporation of India Limited (CCIL), designated post offices, and recognised stock exchanges viz., National Stock Exchange of India Limited and Bombay Stock Exchange Limited.

## India's first Surety Bond Insurance

- **Context:** Union Minister for road, transport, and highways Nitin Gadkari Speaking at the CII Global Economic Policy Summit said that they launched India's first-ever surety bond insurance product to boost liquidity in the infrastructure sectors.

### Key Highlights:

- The general insurance companies will issue the first-ever surety bonds insurance products for highway contractors.
- The new mechanism will help boost liquidity in the infrastructure sector by freeing up the working capital of the constructors that are stuck as bank guarantees.
- These funds can be used by contractors to expand their business and further boost the infrastructure of the country.
- This will help address the challenges associated with highway construction.

### About Surety Bond:

- A surety bond is provided by the insurance company on behalf of the contractor to the entity, which is awarding the project.
- When a principal breaks a bond's terms, the harmed party can make a claim on the bond to recover losses.
- **Definition:** It is a written agreement to guarantee compliance, payment, or performance of an act. Surety is a unique type of insurance because it involves a three-party agreement.
- **The three parties in a surety agreement are:**
  - **Principal:** The party that purchases the bond and undertakes an obligation to perform an act as promised.

- **Surety:** The insurance company or surety company that guarantees the obligation will be performed. If the principal fails to perform the act as promised, the surety is contractually liable for losses sustained.
- **Obligee:** The party who requires, and often receives the benefit of the surety bond. For most surety bonds, the obligee is a local, state or federal government organisation.

## Panini's Ashtadhyayi

- **Context:** An Indian student claims to have solved Sanskrit's biggest puzzle—a grammar problem found in the 'Ashtadhyayi'.

### Key Highlights:

- Rishi Rajpopat have decoded a puzzle of medieval textbook based on Panini's rules for Sanskrit that has confused scholars for centuries
- Grammar problem found in the 'Ashtadhyayi', an ancient text written by the scholar Panini towards the end of the 4th century BC. Experts are calling the discovery revolutionary, as it may allow Panini's grammar to be taught to computers for the first time.
- In his thesis titled 'In Panini We Trust', Dr Rishi Rajpopat took a simpler approach, arguing that the meta-rule has been wrongly interpreted throughout history; what Panini actually meant, was that for rules applying to the left and right sides of a word, readers should use the right-hand side rule.
- Using this logic, he found that the 'Ashtadhyayi' could finally become an accurate 'language machine', producing grammatically sound words and sentences almost every time.

20<sup>th</sup> DECEMBER, 2022

## INS Mormugao

- **Context:** The second of the Project 15B stealth-guided missile destroyers built by Mazagon Dock

Shipbuilders Limited (MDSL), INS Mormugao commissioned into the India Navy.

### Key Highlights

- The ship, named after a key port in Goa, was commissioned a day before the Goa Liberation Day celebrations.
- Measuring 163 m in length and 17m in breadth with a displacement of 7,400 tonnes, INS Mormugao is packed with sophisticated state-of-the-art weapons and sensors such as Surface-to-Surface Missile and Surface-to-Air Missiles.
- The ship is fitted with a modern Surveillance Radar which provides target data to the gunnery weapon systems.
- Its Anti-Submarine Warfare capabilities are provided by the indigenously-developed Rocket Launchers, Torpedo Launchers and the ASW helicopters.
- The ship is equipped to fight under Nuclear, Biological and Chemical warfare conditions.
- It is propelled by four powerful Gas Turbines, in a Combined Gas and Gas configuration, capable of achieving speeds in excess of 30 knots.
- The ship has enhanced stealth features resulting in a reduced Radar Cross Section.
- INS Mormugao has a complement of about 300 personnel.
- With over 75% indigenous content, all its major weapons and sensors have been developed and manufactured in India either directly through design and development by Indian Original Equipment Manufacturers (OEMs) or through strategic tie-ups and Transfer of Technology with reputed foreign OEMs.

### About Project 15B

- Over the last decade, the Indian Navy has commissioned three guided missile destroyers of the Kolkata class, INS Kolkata, INS Kochi, and INS Chennai — under the project codenamed 15A. These ships were a step ahead of their precursor Delhi class of ships — INS Delhi, INS Mysore, and INS Mumbai.

- All these ships were built by MDSL, one of the country's most important Defence PSUs. A ship 'class' describes a group of vessels of similar tonnage, usage, capabilities, and weaponry.
- The contract for four guided missile destroyers more advanced than the Kolkata class was signed in January 2011. This was Project 15B, and the lead ship, INS Visakhapatnam (Pennant D66) was commissioned into the Navy in November 2021.
- Designed by the Warship Design Bureau, Indian Navy's in-house warship design body, and built by MDSL in Mumbai, the four ships of Project 15B were to be named after four major cities around the country — Visakhapatnam, Mormugao, Imphal, and Surat. A ship class is identified by its lead ship, in this case, INS Visakhapatnam.

## Japan's major boost to military build up

- **Context:** In a significant shift from its long-time post-war pacifist approach, Japan recently announced a \$320 billion plan for a military build-up, the biggest since the Second World War.

### Key Highlights

- On December 16, Prime Minister Kishida Fumio's cabinet approved Japan's three key security documents.
- Based on current budgets, this five-year plan will make Japan the world's third-biggest military spender after the United States and China.

### Possible reason behind Japan's move

- Analysts believe that the reason behind the major move may be Japan's concerns about potential regional threats.
- A catalyst for this stance may be Russia's invasion of Ukraine.
- China's aggression and possibility of China's takeover of Taiwan in the future, possibility of China attempting to wrestle for control of the uninhabited Senkaku Islands, regarding which it is engaged in a

territorial dispute with Japan are major concerns that seem valid behind the move.

### Japan's post-war military policy

- Under the country's post-war constitution, Japan is not allowed to have offensive military forces.
- Article 9 of the constitution says "the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes".

### Consistently amending its security policy

- Japan has been consistently amending its security policy to increase its capabilities to defend itself outside its own territories, and has been developing itself to be equipped to send its forces overseas when required.
- According to a 2012 report by the International Institute for Strategic Studies, Japan has the world's sixth-best funded defense forces.
- Japan's new strategy documents unveiled show that the country believes that its current defense capabilities are insufficient given the rapidly changing global scenario.

## Kunming-Montreal Global Biodiversity Framework (GBF)

- **Context:** The 15th Conference of Parties (COP15) to the UN Convention on Biological Diversity (CBD) adopted the Kunming-Montreal Global Biodiversity Framework (GBF).

### Key Highlights

- The Kunming-Montreal Global Biodiversity Framework (GBF) aims to halt and reverse biodiversity loss by 2030.
- Taking a similar approach to the Paris Climate Agreement, this framework sets a clear mandate for private financial flows to align with the 2050 Vision of "Living in harmony with Nature", providing the finance sector with a landmark agreement for biodiversity-related financial-decision making.



- This agreement has been decisively backed by the financial sector: 150+ financial institutions with US\$24+ trillion in global assets called for an ambitious framework to halt and reverse biodiversity loss.
- The framework has 23 targets that the world needs to achieve by 2030.
- COP15 had representatives of 188 governments on site and agreed on the framework that hopes to arrest the ongoing loss of terrestrial and marine biodiversity.
- In 2020, the world had failed to meet the last set of targets, the Aichi Targets.
- Clear indicators to measure progress have been set to avoid the failure as seen in the Aichi Targets.
- The countries will monitor and report every five years or less on a large set of indicators related to progress.
- The Global Environment Facility has been requested to establish a Special Trust Fund to support the implementation of the Global Biodiversity Framework (GBF).

- Other recommendations include refunding unregistered persons and facilitating e-commerce for micro enterprises.

### About GST Council:

- The Council, according to Article 279, is meant to “make recommendations to the Union and the states on important issues related to GST, like the goods and services that may be subjected or exempted from GST, model GST Laws, etc.
- Members: The Union Finance Minister (chairperson), the Union Minister of State (Finance) from the Centre. Each state can nominate a minister in-charge of finance or taxation or any other minister as a member.

### UN Biodiversity Conference (COP 15)

- **Context:** India pushes for new biodiversity fund At the COP15 biodiversity conference in Montreal and said that the developing nations bear most of the burden of implementing the targets for conservation and therefore, require adequate funds.

21<sup>st</sup> DECEMBER, 2022

### 48th GST Council meeting

- **Context:** The GST Council chaired by Finance Minister Nirmala Sitharaman recommended to decriminalise certain offences under Section 132 of the Central Goods and Services Tax (CGST) Act, 2017.

#### Key Highlights:

- The 48th GST Council meeting has recommended measures such as -
- Raising the minimum threshold of tax amount for launching prosecution under GST from one to two crore.
- Reducing the compounding amount from the present range of 50 to 150% of the tax amount to the range of 25 to 100%.
- Decriminalising certain offences under Section 132 of the CGST Act, 2017, such as preventing any officer from doing his duties, deliberate tempering of material evidence and failure to supply information.

#### Key Highlights:

- Need to create a new and dedicated fund to implement a post-2020 Global Biodiversity framework (GBF) to halt and reverse biodiversity loss.
- Common but Differentiated Responsibilities and Respective Capabilities' (CBDR) must be the basis of the conservation of biodiversity.
- Cost and the burden of environmental recovery fall disproportionately on the countries that can least afford them
- Need to put in place a Resource Mobilization Mechanism.
- Ecosystem approaches for the conservation of biodiversity need to be adopted rather than going for nature-based solutions.
- The parties are trying to achieve a consensus on eliminating subsidies that are harmful to the environment. But India differentiates on this issue.
- GBF must be framed considering science and equity and the sovereign right of countries.

### Intended outcome of COP 15:

- To reverse biodiversity loss, negotiations at COP15 will centre on finalising the Post-2020 Global Biodiversity Framework.
- This is a strategy, with goals and targets for countries to achieve, individually and collectively, in the next decade and beyond.
- The aim is to set humanity on course for achieving the CBD's overall vision of "living in harmony with nature" by 2050.

### Lollapalooza Effect

- **Context:** The 'Lollapalooza Effect' on Meta Stock seen, such a well-discovered stock with core fundamentals falls 70-75% in 15 months.

### Key Highlights:

- Meta has brands like Facebook, Instagram and WhatsApp, which are used by about 3.7 billion people on a monthly basis.
- It was one of the safest investment choices by scaling revenues from \$5 billion to more than \$100 billion, and delivering 40% and above PAT growth. However, its valuation has fallen by 70-75% (close to a \$700-billion decline) in a matter of 15 months, indicating the 'Lollapalooza Effect'

### About 'Lollapalooza Effect':

- The term 'Lollapalooza Effect' means a confluence of factors acting together that can lead to either large positive or negative results
- The key is that when forces combine, they don't just add up; each force builds off and strengthens the other, creating an explosive effect with huge results.

