



WEEKLY CURRENT AFFAIRS

DECEMBER, 2021

Week-2

08-14 Dec, 2021

★★ Useful for ★★

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

8th DECEMBER 2021

Hypersonic Weapons

- **Context:** Recent developments have put the spotlight on hypersonic weapons development, especially the advancements made by China and Russia.

Key Points:

- China tested a nuclear-capable hypersonic missile in August 2021 that circled the globe before speeding towards its target. However, China has denied that it was nuclear-capable.
- In early October 2021, Russia had successfully test-launched a Tsirkon hypersonic cruise missile from a Severodvinsk submarine.
- While the U.S. has active hypersonic development programmes, it was lagging behind China and Russia because “most U.S. hypersonic weapons, in contrast to those in Russia and China, are not being designed for use with a nuclear warhead.

About Hypersonic Weapons

- They are maneuverable weapons that can fly at speeds in excess of Mach 5, five times the speed of sound.
- They are capable both of maneuvering and of flying faster than 5,000 km per hour, which would enable such missiles to penetrate most missile defences and to further compress the timelines for a response by a nation under attack.
- Most hypersonic vehicles primarily use scramjet technology.
- **There are two classes of hypersonic weapons:**
 - Hypersonic glide vehicles (HGV) and hypersonic cruise missiles (HCM). HGVs are launched from a rocket before gliding to a target while HCMs are powered by high-speed, air-breathing engines, or scramjets, after acquiring their target.

Highly Invasive Snail Species

- **Context:** A tiny snail with a striking, pellucid golden-yellow shell found in the Edappally canal in Kochi has been flagged as an invasive species that could play havoc with native ecosystems.

About Invasive species:

- Invasive species or invasive exotics are the non-native or non-indigenous plants and animals that affect the habitats and bioregions they invade economically, environmentally and ecologically.
- The study also draws attention to the threat posed by invasive species to global biodiversity; how their ability to quickly dominate new environments endangers native species, even causing serious economic loss.
- They disrupt by dominating a region and disrupting the natural equilibrium.
- An alteration in the genetic pool: is a major threat by the invasive species.

Armed Forces (Special Powers) Act

- **Context:** Recently, the Chief Minister of Nagaland has called for scrapping the Armed Forces (Special Powers) Act after a botched ambush by para commandos in Nagaland.

About Armed Forces (Special Powers) Act [AFSPA]

- It was enacted by the Parliament and approved by the President in 1958.
- It confers certain special powers on members of the Armed Forces (military forces, air forces operating on the ground as land forces and any other armed forces of the Union (CRPF, BSF, ITBP etc) for carrying out proactive operations against the insurgents in a highly hostile environment. They have the authority to prohibit a gathering of five or more persons in an area.
- The AFSPA is also in force in the entire Nagaland, certain districts of Arunachal Pradesh, and most parts of Manipur barring the Imphal municipal areas.

Significance

- Armed Forces are deployed in counter-insurgency/terrorist operations when all other forces available to the State have failed to bring the situation under control.
- Armed forces operating in such an environment require certain special powers and protection in the form of an enabling law.
- Therefore, AFSPA is absolutely essential to combat insurgency in the country and protect the borders.

North-East Industrial Development Scheme (NEIDS)

- **Context:** Till end-October 2021, a total of 391 new industrial units have been granted registration under North East Industrial Development Scheme (NEIDS).

About North-East Industrial Development Scheme (NEIDS)

- It has come into force with effect from 01.04.2017 for a period of five years.
- It covers eligible industrial units in the manufacturing and service sectors of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim to promote industrialization and boost employment and income generation.
- **Various benefits provided under the scheme include:**
 - Central Capital Investment Incentive (30% of the investment in plant & machinery with an upper limit of Rs. 5 crores).
 - Central Interest Incentive (3% interest on working capital for 5 years)
 - Central Comprehensive Insurance Incentive (Reimbursement of 100% insurance premium for 5 years).
 - Income Tax Reimbursement of centre's share for 5 years
 - GST reimbursement of Central Govt. share of CGST & IGST for 5 years

- Employment Incentive under which additional 3.67% of the employer's contribution to EPF in addition to Govt. bearing 8.33% Employee Pension Scheme (EPS) contribution of the employer in PMRPY

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Pradhan Mantri Rojgar Protsahan Yojana

- **Context:** More than 1.2 crores benefited under Pradhan Mantri Rojgar Protsahan Yojana.

About Pradhan Mantri Rojgar Protsahan Yojana(PMRPY)

- The scheme is implemented by the Ministry of Labor and Employment.
- It has been designed to incentivise employers for the generation of new employment.
- Under the scheme, the Government of India is paying the Employer's contribution i.e. 12% for a period of three years to the new employees earning wages less than or equal to Rs. 15,000/- through EPFO.
- The beneficiaries registered up to 31st March 2019 will continue to receive the benefit for 3 years from the date of registration under the scheme i.e. up to 31st March 2022.
- **Benefits:**
 - The employer is incentivised for increasing the employment base of workers in the establishment.
 - A large number of workers will find jobs in such establishments.
 - A direct benefit is that these workers will have access to social security benefits of the organized sector
 - It brings informal workers to the formal workforce.

Vertical Launch Short Range Surface to Air Missile (VL-SRSAM)

- **Context:** The Defence Research and Development Organization (DRDO) tested recently the "vertical launch-short range surface-to-air missile".

About VL-SRSAM

- Vertical Launch Short Range Surface to Air Missile (VL-SRSAM) is indigenously developed by DRDO and designed for deployment onboard Indian Naval warships.
- It can engage targets at around 15km
- It is meant for neutralizing various aerial threats at close ranges, including sea-skimming targets, which are assets that fly as close as possible to the sea surface to avoid being detected by the radars onboard warships.
- It is expected to replace the older Israeli-made Barak-1 surface to air missile system.
- VL-SRSAM is based on "Astra Mark 1 air-to-air missile", consisting of four short-span long-chord cruciform wings.

Significance

- It will provide the Navy with a 360-degree aerial shield against incoming targets and further enhance the air defense capability of Indian naval ships against aerial threats.

Pradhan Mantri Shram Yogi Maandhan (PM-SYM) Scheme

- **Context:** The Union Minister of State for Labor And Employment replied in the Rajya Sabha that a total 45, 77,295 unorganized workers have been registered under the Pradhan Mantri Shram Yogi Maandhan (PM-SYM) scheme. Unorganized sectors contribute around 50% of India's GDP.

About PM-SYM Scheme:

- Pradhan Mantri Shram Yogi Maandhan (PM-SYM) Scheme is a Voluntary and Contributory Pension Scheme under the purview of the Central Sector Scheme, administered by the Ministry of Labor and Employment and implemented by LIC.
- **Eligibility:**
 - The scheme is open for Unorganized Workers.
 - They should not be engaged in the Organized

Sector (member of EPFO/NPS/ESIC) or an income taxpayer.

- They should be aged between 18-40 years when registering.
- Their monthly income should be equal to or less than Rs 15,000 per month.
- **Features:**
 - Assured Pension of Rs. 3000/- month after attaining the age of 60 years. After the death of a subscriber, the spouse will get 50% of the pension as a family pension.
 - Matching Contribution by the Government of India.
 - In case of permanent disability, subscribers can continue or exit with the contributed amount.
 - After the death of the subscriber and his or her spouse, the corpus shall be credited back to the fund.
 - In case the contribution has not been made continuously, the subscriber is allowed to regularize it after payment of outstanding dues, penalty charges, if any, decided by the government.

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Laser Communications Relay Demonstration (LCRD)

- **Context:** NASA launched its new Laser Communications Relay Demonstration (LCRD). It is NASA's first-ever laser communications system from Cape Canaveral Space Force Station in Florida.

About LCRD:

- Laser Communications Relay Demonstration (LCRD) will help NASA to test optical communication in space.
- LCRD is a technology demonstration that will pave the way for future optical communications missions.
- The LCRD payload is hosted onboard the US Department of Defense's Space Test Program Satellite 6 (STPSat-6).

- It will be in a geosynchronous orbit, over 35,000km above Earth.
- Currently, most NASA spacecraft use radio frequency communications to send data. Optical communications will help increase the bandwidth 10 to 100 times more than radio frequency systems.

Raigad Fort

- **Context:** Recently, the President of India visited the Raigad Fort in Maharashtra and paid tribute to Chhatrapati Shivaji Maharaj.

About Raigad Fort:

- Raigad is a hill fort situated about 25 km from Mahad in the Raigad district and stands 2,851 feet above sea level.
- The fort was known to early Europeans as the Gibraltar of the East. Its decisive feature is a mile and a half flat top which has adequate room for buildings. In its prime, the fort had 300 stone houses and a garrison of 2,000 men.
- **Historical link :**
 - The fort, which was earlier called Rairi, was the seat of the Maratha clan Shirke in the 12th century.
 - Many dynasties ruled the fort from the dynasty of Bahaminis to the Nizam Shahis and then the Adil Shahis.
 - In 1656, Chhatrapati Shivaji Maharaj captured it from the More's of Javli who were under the suzerainty of the Adilshahi Sultanate.
 - The fort's name was changed to Raigad by Chhatrapati Shivaji Maharaj in 1662, and he also added a few structures.

PANEX-21

- **Context:** A curtain-raiser for the Humanitarian Assistance and Disaster Relief exercise, PANEX-21 is being held in New Delhi.
- The exercise will look at analyzing capabilities of member states and share best practices, review existing procedures for notification, preparedness

and response and recommend the evolution of an organized structure with mechanisms for response to disasters including capability development, training, the regional pool of experts.

About PANEX-21

- It is a multi-nation disaster management exercise with a special focus on relief in the backdrop of the Covid-19 pandemic.
- It will involve Bangladesh, Bhutan, Nepal, Sri Lanka, Myanmar, Thailand and India—BIMSTEC countries.
- **Last BIMSTEC exercises:** BIMSTEC Disaster Management Exercises (DMEx-2017 at Delhi and DMEx-2020 at Puri).

Jnanpith Award

- **Context:** Assamese poet Nilmani Phookan Jr won the 56th Jnanpith Award and Konkani novelist Damodar Mauzo won the 57th Jnanpith Award.

About Jnanpith Award

- It is the highest literary award in India and is given annually for the best creative literary writing to writers in any of the 22 "scheduled languages" recognized in the Indian Constitution.
- It is sponsored by the cultural organization Bharatiya Jnanpith.
- It was instituted in 1961, and the first award was given in 1965.
- The prize carries a cash award, a citation, and a bronze replica of Vagdevi (Saraswati), the goddess of learning.

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Ken-Betwa River Inter-linking Project

- **Context:** The Union Cabinet approved the funding and implementation of Ken-Betwa inter-linking of rivers project. The project has a deadline of eight years.

Key points:

- After coming to power in 1999, the then-prime minister, Atal Bihari Vajpayee, set up a task force to accelerate the project.
- **Aim of the project:** Transferring of water from the Ken River to the Betwa River through the construction of Daudhan dam and a canal linking the two rivers, the Lower Orr Project, Kotha Barrage and the Bina Complex Multipurpose Project.
- **Ken-Betwa Link Project Authority (KBLPA):** A Special Purpose Vehicle (SPV) called Ken-Betwa Link Project Authority (KBLPA) will be set up to implement the project.
- This project will provide enormous benefits to the districts of Panna, Tikamgarh, Chhatarpur, Sagar, Damoh, Datia, Vidisha, Shivpuri and Raisen of Madhya Pradesh and Banda, Mahoba, Jhansi & Lalitpur of Uttar Pradesh.

Significance

- Benefit to the water-starved Bundelkhand region: The project will be of immense benefit to the water-starved Bundelkhand region, spread across the states of MP and UP.
- The project will provide an annual irrigation of 10.62 lakh ha, drinking water supply to a population of about 62 lakhs and also generate 103 MW of hydropower and 27 MW solar power.

About National Inter-linking of Rivers Authority (NIRA)

- The Ministry of Jal Shakti is likely to announce this.
- It will restructure the National Water Development Agency (NWDA), with powers envisaged.
- NIRA is to function as an autonomous body.

PM Awas Yojana-Gramin Scheme

- **Context:** Recently, The Union Cabinet has approved the continuation of Pradhan Mantri Awas Yojana Gramin (PMAY-G) for another three years till March 2024.

- The extension of the scheme will help in the construction of the remaining 155.75 lakh houses. It will help achieve the target of 2.95 crore 'pucca' houses.

About PMAY-G:

- Pradhan Mantri Awas Yojana – Gramin (PMAY-G) is one of the flagship programmes of the Government of India which is driven by the noble objective of providing “Housing for All” by the year 2022.
- It was launched by the Ministry of Rural Development.
- It is a social welfare program through which the Government provides financial assistance to houseless beneficiaries identified using SECC 2011 data to help them construct a house of respectable quality for their personal living.
- Under PMAY, the cost of unit assistance is to be shared between Central and State Governments in the ratio 60:40 in plain areas and 90:10 for North Eastern and hilly states.
- The program envisages the completion of 2.95 crore PMAY-G houses with all basic amenities by the year 2022.

Kasturirangan Committee on Western Ghats

- **Context:** The Kasturirangan Commission has sought to balance the two concerns of development and environment protection.
- Karnataka's Chief Minister said that declaring Western Ghats as an ecologically sensitive zone would adversely affect the livelihood of people in the region.
- The experts called the state's opposition disastrous for the ecologically fragile Western Ghats

Recommendations of Kasturirangan Committee

- The Kasturirangan report seeks to bring just 37% of the Western Ghats under the Ecologically Sensitive Area (ESA) zones — down from the 64% suggested by the Gadgil report.

- It has recommended prohibition on development activities in a 60,000 sq. km ecologically sensitive area spread over Gujarat, Karnataka, Maharashtra, Goa, Kerala and Tamil Nadu.
- The report recommended a blanket ban on mining, quarrying, setting up of red category industries and thermal power projects.
- It also stated that the impact of infrastructural projects on the forest and wildlife should be studied before permission is given for these activities.
- It also stated that the UNESCO Heritage tag is an opportunity to build global and domestic recognition of the enormous natural wealth that exists in the Western Ghats.

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Ambergris

- **Context:** The Crime Branch in Pune seized 550 grams of ambergris, also known as 'floating gold'.

About Ambergris:

- Ambergris, French for grey amber, is generally referred to as whale vomit.
- It is a solid waxy substance originating in the intestine of the sperm whale. Ambergris is produced only by an estimated 1% of sperm whales.
- Chemically, ambergris contains alkaloids, acids, and a specific compound called ambreine, which is similar to cholesterol.
- It floats around the surface of the water body and at times settles on the coast.
- Because of its high value it is referred to as floating gold. 1 kg of ambergris is worth Rs 1 crore in the international market.
- It is used in the perfume market, especially to create fragrances like musk. It is believed to be in high demand in countries like Dubai that have a large perfume market.

- Ancient Egyptians used it as incense. It is also believed to be used in some traditional medicines and as a spice.

Mi-17V5 Chopper

- **Context:** General Bipin Rawat, his wife and 11 others on board a Mi-17V5 IAF helicopter were killed after it crashed in Tamil Nadu's Coonoor.

About Mi-17V5 chopper:

- It is a Russian-made helicopter which is produced by Kazan Helicopters.
- The first batch of these helicopters came to India in September 2011.
- It is a military transport variant in the Mi-8/17 family of helicopters.
- **Features:**
 - The helicopter has a maximum takeoff weight of 13,000kg. It can transport either 36 armed soldiers internally or 4,500kg of load on a sling.
 - It can also be deployed in troop and arms transport, fire support, convoy escort, patrol, and search-and-rescue (SAR) missions.
 - The helicopter can achieve a maximum speed of 250 km per hour.
 - **Survivability of Mi-17V5 transport helicopter:** The cockpit and vital components of the helicopter are protected by armoured plates.
 - **Mi-17V5 weapon systems:** Mi-17V5 is armed with Shturm-V missiles, S-8 rockets, a 23mm machine gun, PKT machine guns, and AKM sub-machine guns. It features eight firing posts for aiming the weapons.

Air version of BrahMos Missile

- **Context:** Recently, the Air version of BrahMos was test-fired from Sukhoi 30 MKI supersonic fighter aircraft.

About BrahMos

- BRAHMOS is a joint venture between the Defence Research and Development Organisation of India (DRDO) and the NPOM of Russia.

- Brahmos is named for the rivers Brahmaputra and Moskva.
- **Features:**
 - It is a 2 stage missile with solid propellant (Stage 1) which gives it supersonic speed and liquid ramjet (Stage 2) increasing its speed to Mach 3 in the cruise phase.
 - It has a flight range of 290km.
 - It operates on the 'Fire and Forget' principle i.e it does not require further guidance after launch.
 - It can be fired from land, warships, submarines and Sukhoi-30 fighter jets.
 - They fly within the earth's atmosphere and use jet engine technology.
 - They can be categorized according to size, speed(subsonic, supersonic, hypersonic), range, and the launch platform(land, aircraft, warship, submarine).
- Within the first 45 days of the bank being put under a moratorium, the DICGC would collect all information relating to deposit accounts. In the next 45 days, it will review the information and repay depositors closer to the 90th day.
- Deposit insurance covers all deposits such as savings, fixed, current, recurring deposits, in all commercial banks, functioning in India.
- Along with Commercial Banks, deposits in the state, central and primary cooperative banks, functioning in states/union territories are also covered.

About Deposit Insurance and Credit Guarantee Corporation (DICGC)

- It is a specialized division of the Reserve Bank of India which is under the jurisdiction of the Ministry of Finance.
- It was established on 15 July 1978 under the Deposit Insurance and Credit Guarantee Corporation Act, 1961 for the purpose of providing insurance of deposits and guaranteeing of credit facilities.

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Bank Deposit Insurance Programme

- **Context:** Recently, the Prime Minister of India noted that the deposits worth Rs 76 lakh crore were insured under the Deposit Insurance and Credit Guarantee Corporation (DICGC).

Key Points:

- The Center had passed an amendment to the Deposit Insurance and Credit Guarantee Corporation Act to ensure that account holders can access their insured deposit amount within 90 days of such a liability arising in the event of a bank coming under the moratorium imposed by the Reserve Bank of India (RBI).
- Norms for deposit insurance earlier: Earlier, out of the amount deposited in the bank, only Rs 50,000 was guaranteed, which was then raised to Rs 1 lakh.
- Current norms for deposit insurance: Now, if a bank is weak or is even about to go bankrupt, depositors will get their money of up to Rs five lakhs within 90 days.

Extended Range Pinaka Missile

- **Context:** Successful tests of Pinaka Extended Range (ER) multi-barrel rocket launcher system, Area Denial Munitions (ADM) and indigenously developed fuzes have been carried out at various test ranges.

Key Points:

- The Pinaka-ER Multi Barrel Rocket Launcher System was successfully tested at the Pokhran range.
- It is the upgraded version of the earlier Pinaka version which has been in service with the Indian Army for the last decade.
- The system has been designed in the light of emerging requirements with advanced technologies enhancing the range.
- The system is jointly designed by laboratories of Defence Research and Development Organization (DRDO) - Armament Research & Development Establishment (ARDE), Pune and High Energy Materials Research Laboratory (HEMRL), Pune.

Earth's Black Box

- **Context:** A black box is being built in Australia that will record the Earth's warming weather patterns.

About Earth's Black Box

- It will be constructed in Tasmania, an Australian island state off the south coast. Tasmania was chosen for its relative geopolitical and environmental safety.
- It is a 33-foot-long box made of 3-inch-thick steel and is expected to be completed in 2022.
- The data will be stored on a giant, automated, solar-powered hard drive with a capacity to collect information for about 50 years.
- The purpose of the device is to provide an unbiased account of the events that lead to the demise of the planet, hold accountability for future generations, and inspire urgent action

Features

- It will operate much like a plane's flight recorder, which records an aircraft's final moments before crashing.

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Ramanujan Prize 2021

- Professor Neena Gupta, a mathematician, has been awarded the 2021 Ramanujan Prize for Young Mathematicians from developing countries.
- She is awarded for her outstanding work in affine algebraic geometry and commutative algebra.

About Ramanujan Prize

- Ramanujan Prize was first awarded in 2005.
- It is administered by the Abdus Salam International Center for Theoretical Physics (ICTP) jointly with the Department of Science and Technology (DST) Government of India and the International Mathematical Union (IMU).
- It is given annually to an eminent Mathematician who is less than 45 years of age on 31 December of the year of the award.

- The DST-ICTP-IMU Ramanujan Prize committee, composed of eminent mathematicians from around the world.

International Solar Alliance (ISA)

- **Context:** Recently, the UN General Assembly has conferred Observer Status to the International Solar Alliance (ISA).

Key Points:

- The granting of Observer Status to ISA in the General Assembly would help provide for regular and well-defined cooperation between the Alliance and the United Nations that would benefit global energy growth and development.
- It would help ISA to expand its network through setting up a trans-national grid -- One Sun One Work One Grid (OSOWOG).

About International Solar Alliance (ISA)

- The ISA was conceived as a joint effort by India and France to mobilize efforts against climate change through the deployment of solar energy solutions.
- It was presented by the leaders of the two countries at the 21st Conference of Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Paris in 2015.
- **Headquarters:** India
- The Assembly is the apex decision-making body of the ISA. It meets annually at the Ministerial level at the seat of the ISA.
- **Membership:** A total of 80 countries have signed and ratified the ISA Framework Agreement and 101 countries have only signed the agreement.

22nd Law Commission

- **Context:** Recently, the Government informed the Supreme Court that the appointment of Chairperson and Members of the 22nd Law Commission of India is under consideration.

- The Law Commission of India is a non-statutory body constituted by the Government of India from time to time.
- The Commission was originally constituted in 1955 and is reconstituted every three years. The tenure of the twenty-first Law Commission of India was up to 31st August 2018.

About 22nd Law Commission:

- The 22nd Law Commission was constituted by the Government on February 21, 2020, for a period of three years from the date of publication of the Order of Constitution in the Official Gazette.
- **It will consist of:**
 - A full-time Chairperson.
 - Four full-time Members (including Member-Secretary) Secretary, Department of Legal Affairs as ex-officio Member; Secretary, Legislative Department as ex officio Member.
 - Not more than five part-time Members.
- **Functions:**
 - The Law Commission shall, on a reference made to it by the Central Government or suo-motu, undertake research in law and review of existing laws in India for making reforms therein and enacting new legislations.
 - It shall also undertake studies and research for bringing reforms in the justice delivery systems for elimination of delay in procedures, speedy

disposal of cases, reduction in the cost of litigation etc.

- Before finalizing its recommendations, the Commission will consult the nodal Ministry/ Department (s) and such other stakeholders as the Commission may deem necessary for the purpose.

Saryu Canal National Project

- **Context:** Recently, the Prime Minister of India inaugurated the Saryu Canal National Project in the Balrampur district of Uttar Pradesh.

About Saryu Canal National Project

- The work on the Saryu Canal National Project began in 1978.
- It is in line with the Government's commitment to complete long-pending projects and also harness water resources for the benefit of farmers and to further Ease of Living.
- The project has been completed at a cost of around 10 thousand crore rupees, of which around 50 per cent of funds were made available in the last four years.
- The project involves the interlinking of five rivers – Ghagra, Saryu, Rapti, Banganga and Rohin.
- The Project starts from the Saryu Barrage at Bahraich. The main canal is 318 km long and many sub canals with a length of over 66 hundred kilometers have been linked to it.

