



RACE IAS

Current Affairs

30 December 2022

Central Vigilance Commission

Context:

- Vigilance Commissioner Praveen Kumar Srivastava has been appointed as the Acting Central Vigilance Commissioner (CVC)

About Central Vigilance Commission:

- Central Vigilance Commission (CVC) is an apex Indian governmental body created in 1964.
- CVC was set up based on the recommendations of the Committee on Prevention of Corruption, headed by Shri K. Santhanam, to advise and guide Central Government agencies in the field of vigilance.
- The CVC became a Statutory Body with the enactment of CVC Act, 2003.
- The CVC is an independent body, free of control from any executive authority, (It is NOT controlled by any ministry or department).
- The CVC is responsible only to the Parliament.
- The CVC is NOT an investigating agency.
- The CVC may have the investigation done through the CBI or Chief Vigilance Officers (CVO) in government offices.
- President of India appoints CVC members by warrant under his hand and seal.
- The Oath of office is administered by the President.
- A three-member committee made of –
- The Prime Minister, The Home Minister, The Leader of Opposition in Lok Sabha – Makes the Recommendation for appointment of Vigilance Commissioners.
- The Vigilance Commissioners are appointed for a term of Four years OR until they attain 65 years of age (whichever is earlier).
- On retirement – they are NOT eligible for reappointment in any central or state government agency.

Functions of CVC:

- The CVC monitors all vigilance activity under the Central Government It advises various authorities in Central Government organizations in planning, executing, reviewing and reforming their vigilance work.

- The CVC recommends appropriate action on complaints on corruption or misuse of power.
- Lokpal, Central Government or Whistle blowers can approach the CVC regarding complaints.
- The CVC – Under Prevention of Corruption Act, 1988 – can inquire into offences reported against certain categories of Public Servants. (However, remember, CVC is NOT an Investigating agency).
- The Annual Report of the CVC not only gives the details of the work done by it but also brings out the system failures which leads to corruption in various Departments/Organisations, system improvements, various preventive measures and cases in which the Commission's advises were ignored etc.

Composition of Central Vigilance Commission:

The CVC is comprised of 3 members:

- A Central Vigilance Commissioner (Chairperson)
- Up to Two Vigilance Commissioners (Members)
- Removal of members (according to CVC Act)
- The Central Vigilance Commissioner or any Vigilance Commissioner can be removed from his office only by order of the President on the ground of proved misbehavior or incapacity after the Supreme Court reports that the officer ought to be removed after inquiry, on a reference made to it by the President.

Also, a member can be removed if the member:

- Is Adjudged as an insolvent
- Is convicted of an offence that involves moral turpitude according to Central Government
- Engages in Office of profit outside the duties of his office
- Is declared unfit by reason of infirmity of mind or body, by the President
- Participates / Concerned / Interested to Participate – in any way in the profit / in any benefit – in any contract or agreement made by or on behalf of the Government of India

Criticism – Limited Powers of CVC

- CVC is treated as an advisory body only as Central Government Departments are free to either accept or reject CVC's advice in corruption cases.
- The Commission has no jurisdiction over private individuals and organisations of the State Governments. The CVC is left with no power to register criminal case.
- The CVC cannot direct the CBI to initiate inquiries against any officer of the level of Joint Secretary and above.
- Hence, CVC neither has the resources nor the power to take action on complaints of corruption.
- Appointments to CVC are indirectly under the control of Govt of India.
- Although, the leader of the Opposition in Lok Sabha is a member of the committee that selects the CVC Members – the committee just considers the

candidates that are put up before it, and these candidates are decided by the Government.

- CVC is a very small set up with a sanctioned staff strength of 299, which is supposed to check corruption in more than 1500 central government departments and ministries.

Eklavya Model Residential Schools

Context:

- Recently, Tribal Affairs Minister kicked off a two-day training programme for teachers of Eklavya Model Residential Schools for tribal students, which is meant to serve as "a stepping stone in creating awareness about the potential of computer science in students of EMRS"

About Eklavya Model Residential Schools:

- EMRS started in the year 1997-98 to impart quality education to ST children in remote areas in order to enable them to avail of opportunities in high and professional education courses and get employment in various sectors.
- Across the country, as per census 2011 figures, there are 564 such sub-districts out of which there is an EMRS in 102 sub-districts.
- As per revised 2018 scheme, every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS by the year 2022.
- These schools will be on par with Navodaya Vidyalayas and will have special facilities for preserving local art and culture besides providing training in sports and skill development.

What is the current status?

- The Tribal Affairs Ministry insists on maintaining the new criteria.
- Ministry officials said that as of November, a total of 688 schools have been sanctioned, of which 392 are functional.
- Of the 688, 230 have completed construction and 234 are under construction, with 32 schools still stuck due to land acquisition issues.
- As for serving less dense tribal populations, Minister of Tribal Affairs said that the government will take care of it after the targetted 740 schools under these criteria are built.

Objectives of EMRS:

- Comprehensive physical, mental and socially relevant development of all students enrolled in each and every EMRS. Students will be empowered to be change agent, beginning in their school, in their homes, in their village and finally in a larger context.
- Focus differentially on the educational support to be made available to those in Standards XI and XII, and those in standards VI to X, so that their distinctive needs can be met,
- Support the annual running expenses in a manner that offers reasonable remuneration to the staff and upkeep of the facilities.

- Support the construction of infrastructure that provides education, physical, environmental and cultural needs of student life.

Features of EMRS:

- Admission to these schools will be through selection/competition with suitable provision for preference to children belonging to Primitive Tribal Groups, first-generation students, etc.
- Sufficient land would be given by the State Government for the school, playgrounds, hostels, residential quarters, etc., free of cost.
- The number of seats for boys and girls will be equal.
- In these schools, education will be entirely free.

Proposal To Ban The Sale Of Single Cigarettes

Context:

- The Parliamentary Standing Committee on Health and Family Welfare, in its latest report about cancer management, prevention and diagnosis, recommended that the government institute a ban on the sale of single sticks of cigarettes.

What are the proposals?

To Curb consumption:

- The measures aim to curb consumption as well as the accessibility of tobacco products.
- The report cites the National Health Policy's (2017) endeavour for a relative reduction in current tobacco use by 30% by 2025 and says it is imperative that the government take effective measures to contain the sale of tobacco products.

Increase taxes on all tobacco products:

- It also recommended that the government increase taxes on all tobacco products and utilise the acquired revenue for cancer prevention and awareness.
- To this effect, it recommends that the government prohibit the sale of single sticks of cigarettes and suggests the abolition of all designated smoking areas in airports, hotels, and restaurants in addition to encouraging a smoke-free policy in organisations.

Ban on gutka and pan masala:

- Additionally, the committee also sought a ban on gutka and pan masala alongside a prohibition on their direct and indirect advertisement.
- This is based on the observation that, in India, more than 80% of tobacco consumption is in the form of chewing tobacco, aggressively marketed as a mouth freshener.
- These measures flow from the observation that oral cancer accounts for the highest proportion of cancer cases in the country.

Why focus on single-stick cigarettes?

Economical:

- Single sticks are more economical to acquire than a full pack of cigarettes.
- This may particularly appeal to adolescents and youth who may have limited money in hand. Single sticks are also preferred by people who may want to take them up for experimentation and have not started smoking on a regular basis.
- A ban on single-stick sales would compel a potential consumer to buy the entire pack which may not be particularly economical, thus curbing potential experimentation and the scope for regular intake.
- Moreover, a potential ban would also mean that the consumer would have to carry around the packet.

All forms of tobacco are harmful:

- The World Health Organization (WHO) has observed that all forms of tobacco are harmful, and there is no safe level of exposure to tobacco.
- It also states that smoking cigarettes is the most common way of tobacco use worldwide. Moreover, the medical journal The Lancet noted in an editorial in June 2020, that by 2030, 7 million annual deaths from smoking are expected to be from low and middle-income countries.
- Disincentive to quit smoking:
- Single-stick sales, owing to their easier accessibility and affordability, can also work as a disincentive to quit smoking.
- Nicotine in tobacco products is highly addictive and without cessation support only 4% of users who attempt to quit tobacco consumption will succeed, according to the WHO.

OpenAI's ChatGPT

Context:

- Many of us are familiar with the concept of what a "chatbot" is and what it is supposed to do. But this year, OpenAI's ChatGPT turned a simple experience into something entirely different. ChatGPT is being seen as a path-breaking example of an AI chatbot and what the technology could achieve when applied at scale.

About ChatGPT:

- OpenAI has created ChatGPT, a start-up focused on artificial intelligence and its potential use cases.
- ChatGPT is a 'conversational' AI and will answer queries just like a human would.
- According to OpenAI's description, ChatGPT can answer "follow-up questions", and can also "admit its mistakes, challenge incorrect premises, and reject inappropriate requests."
- It is based on the company's GPT 3.5 series of language learning models (LLM).

- GPT stands for Generative Pre-trained Transformer 3 and this is a kind of computer language model that relies on deep learning techniques to produce human-like text based on inputs.
- The model is trained to predict what will come next, and that's why one can technically have a 'conversation' with ChatGPT.
- According to OpenAI's blog post about ChatGPT, the chatbot was also trained using "Reinforcement Learning from Human Feedback (RLHF)."
- Interestingly, ChatGPT has been trained to decline 'inappropriate' requests, presumably those which are 'illegal' in nature.
- However, it should be noted that ChatGPT has limitations, as it may generate incorrect information, and create "biased content."
- More importantly, the chatbot's knowledge of the world and events after 2021 is limited.
- The chatbot gives answers which are grammatically correct and read well—though some have pointed out that these lack context and substance, which is largely true.

Why has ChatGPT generated so much buzz?

- The reason ChatGPT has generated so much discussion is because of the kind of answers it gives.
- It is being seen as a replacement for the basic emails, party planning lists, CVs, and even college essays and homework.
- It can also be used to write code.
- However, the AI's responses are not without flaws, something even OpenAI admits.
- It notes that the chatbot sometimes could give "plausible-sounding but incorrect or nonsensical answers." Users have the option of downvoting or upvoting a response.
- OpenAI also notes that the chatbot can sometimes overuse certain phrases due to "biases in the training data"

Is ChatGPT capable of writing fiction?

- Yes, but not at the level of a humans, at least not for now.
- Nor is OpenAI the only company trying to get AI to take over writing.
- Google had recently showcased how its LaMDA chatbot is being used to help with fiction writing, but it too admitted that this was only a helper right now and cannot take over the entire task.
- Still, ChatGPT showcases an interesting and exciting use case for AI, where humans can have a 'real' conversation with a chatbot.

Green Hydrogen

Context:

- The govt is planning a \$2 billion incentive program for the green hydrogen industry, in a bid to cut emissions and become a major export player in the field.

What is green hydrogen?

- A colourless, odourless, tasteless, non-toxic and highly combustible gaseous substance, hydrogen is the lightest, simplest and most abundant member of the family of chemical elements in the universe.
- But a colour — green — prefixed to it makes hydrogen the “fuel of the future”.
- The ‘green’ depends on how the electricity is generated to obtain the hydrogen, which does not emit greenhouse gas when burned.
- Green hydrogen is produced through electrolysis using renewable sources of energy such as solar, wind or hydel power.
- Hydrogen can be ‘grey’ and ‘blue’ too.
 - Grey hydrogen is generated through fossil fuels such as coal and gas and currently accounts for 95% of the total production in South Asia.
 - Blue hydrogen, too, is produced using electricity generated by burning fossil fuels but with technologies to prevent the carbon released in the process from entering the atmosphere.

Green Hydrogen Importance:

- Hydrogen is being used across the United States, Russia, China, France and Germany. Countries like Japan desire to become a hydrogen economy in future.
- Green hydrogen can in future be used for
 - Electricity and drinking water generation, energy storage, transportation etc.
 - Green hydrogen can be used to provide water to the crew members in space stations.
 - Energy storage- Compressed hydrogen tanks can store the energy longer and are easier to handle than lithium-ion batteries as they are lighter.
 - Transport and mobility- Hydrogen can be used in heavy transport, aviation and maritime transport.

Why is India pursuing green hydrogen?

- Under the Paris Agreement (a legally binding international treaty on climate change with the goal of limiting global warming to below 2°C compared to pre-industrial levels) of 2015, India is committed to reducing its greenhouse gas emissions by 33-35% from the 2005 levels.
- At the 2021 Conference of Parties in Glasgow, India reiterated its commitment to move from a fossil and import-dependent economy to a net-zero economy by 2070.
- India’s average annual energy import bill is more than \$100 billion and the increased consumption of fossil fuel has made the country a high carbon dioxide (CO₂) emitter, accounting for nearly 7% of the global CO₂ burden.

- In order to become energy independent by 2047, the government stressed the need to introduce green hydrogen as an alternative fuel that can make India the global hub and a major exporter of hydrogen.
- The National Hydrogen Mission was launched on August 15, 2021, with a view to cutting down carbon emissions and increasing the use of renewable sources of energy.

How much green hydrogen is India producing?

- India has just begun to generate green hydrogen with the objective of raising non-fossil energy capacity to 500 gigawatts by 2030.

India's first 99.99% pure green hydrogen pilot plant:

- Recently, the public sector OIL, which is headquartered in eastern Assam's Duliajan, set up India's first 99.99% pure green hydrogen pilot plant in keeping with the goal of "making the country ready for the pilot-scale production of hydrogen and its use in various applications" while "research and development efforts are ongoing for a reduction in the cost of production, storage and the transportation" of hydrogen.
- The plant was set up at the petroleum exploration major's Jorhat pump station, also in eastern Assam.
- Powered by a 500 KW solar plant, the green hydrogen unit has an installed capacity to produce 10 kg of hydrogen per day and scale it up to 30 kg per day.
- A specialised blender has also been installed for blending green hydrogen produced from the unit with the natural gas supplied by the Assam Gas Corporation Limited and supplying the blended gas to the Jorhat area for domestic and industrial use.

Advantages of hydrogen as a fuel:

- The intermittent nature of renewable energy, especially wind, leads to grid instability.
- Green hydrogen can be stored for long periods of time.
- The stored hydrogen can be used to produce electricity using fuel cells.
- In a fuel cell, a device that converts the energy of a chemical into electricity, hydrogen gas reacts with oxygen to produce electricity and water vapour.
- Hydrogen, thus, can act as an energy storage device and contribute to grid stability.
- Renewable developers see green hydrogen as an emerging market and some have targeted the transport sector, although electric vehicles have begun to catch the imagination of consumers today.

Green Hydrogen Disadvantages:

- Renewable sources, which would be used to generate green hydrogen through electrolysis, are extremely expensive currently taking the cost of the whole production to sky heights.
- The production of green hydrogen requires more energy than other fuels.

- Green hydrogen is an extremely volatile and flammable element. It needs extensive safety measures to prevent leakage and explosions.

Pralay Missile

Context:

- Recently, the Ministry of Defense has procured indigenous Short-Range Ballistic Surface-to-Surface (SRBM) Missile Pralay, giving Indian military the heft to its war-fighting capabilities.

About Pralay Missile:

- The first conventional quasi-ballistic missile developed by India, Pralay, is a deterrent against any conventional missile strike from the country's northern or western frontiers.
- A quasi-ballistic missile can manoeuvre in flight while mostly being ballistic and has a low trajectory.
- Initially propelled by a rocket or succession of rockets in stages, ballistic missiles then follow an unpowered trajectory that curves higher before falling to rapidly strike their targeted target.
- The missile was created in such a way that it can destroy interceptor missiles and can alter its course mid-flight after travelling a particular distance.

Range:

- The missile may be launched from a mobile launcher and has a range of 150–500 kilometres.
- Pralay will be the Army's surface-to-surface missile with the greatest range.
- The BrahMos supersonic cruise missile, with a claimed range of about 290 kilometres, is another weapon in the Army's inventory.

Features:

- It is powered with a solid propellant rocket motor and many new technologies.
- The missile guidance system includes state-of-the-art navigation system and integrated avionics.
- It can be compared to China's Dong Feng 12 and the Russian Iskander missile that has been used in the ongoing war with Ukraine.
- It is capable of carrying a conventional warhead of about 350 kg to 700 kg, which gives it a deadly punitive capability.
- It can carry a high explosive preformed fragmentation warhead, penetration-cum-blast (PCB) and runaway denial penetration submunition (RDPS).

Significance:

- It is the nation of India's first tactical quasi-ballistic missile, and it will enable the armed forces to attack strategic assets and enemy locations in actual war zones.
- The BrahMos supersonic cruise missile and Pralay will make up the core of India's proposed Rocket Force.

- India will have two long-range conventional missiles, which will totally alter the tactical warfare dynamics.
- The BrahMos will be a cruise option and this one will be the ballistic option.

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