

1. Exercise INDRA 2019

- Exercise INDRA 2019 is a joint, tri-services exercise between India and Russia will be conducted in India simultaneously at Babina (near Jhansi), Pune, and Goa.

About the Exercise

- The INDRA series of exercise began in 2003 and the First joint Tri-Services Exercise was conducted in 2017.
- The exercise will consist of a five-day training phase consisting of a comprehensive training curriculum.
- Tactical operations end drills such as cordon house intervention, handling and neutralisation of Improvised Explosive Devices, prevention of arms smuggling through the sea route and anti-piracy measures will be practised.

Topic- GS Paper 3 –Defence

Source- PIB

2. Extra Neutral Alcohol

- Alcohol manufacturers have written to NITI Aayog asking for a reduction in import duty of Extra Neutral Alcohol (ENA).

About Extra Neutral Alcohol

- It is the primary raw material for making alcoholic beverages which are derived from different sources — sugarcane molasses and grains.
- It also serves as an essential ingredient in the manufacture of cosmetics and personal care products such as perfumes, toiletries, hair spray, etc.

Properties of ENA

- It is colourless food-grade alcohol that does not have any impurities.
- It has a neutral smell and taste and typically contains over 95 per cent alcohol by volume.
- It is used in the production of alcoholic beverages such as whisky, vodka, gin, cane, liqueurs, and alcoholic fruit beverages.

Topic- GS Paper 3 –Science and Technology

Source- Indian Express

3. Women help desks in police stations



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- The Home Ministry has sanctioned ₹100 crores from the Nirbhaya Fund for setting up women help desks in police stations across the country.

About the Women help desk

- These desks would focus on making the police stations more women-friendly and approachable, as they would be the first and single point of contact for any woman walking into a police station.
- Women police officers would be deployed at these help desks.
- These help desks would have enlisted panel of experts like lawyers, psychologists and NGOs to facilitate legal aid, counselling, shelter, rehabilitation and training,” the statement added.

Topic- GS Paper 2 –Governance

Source- AIR

4. India’s first 14MLD, HAM project in sewerage sector

- India’s first Hybrid Annuity (HAM) project in sewerage sector, the 14MLD Sewage Treatment Plant (STP) at Sarai in Haridwar, was inaugurated by Chief Minister of Uttarakhand.
- It is the first STP project to be completed under the Hybrid Annuity (HAM) Based Public-Private Partnership Model.
- This Plant is based on advanced aerobic biological process, Sequential Batch Reactor (SBR) process, capable of removing the nutrients during treatment and is a 100% eco-friendly project.
- Another unique feature of this HAM project is that after its commissioning, this plant will also be maintained and operated for a period of 15 years by the same developer for efficient performance and for meeting output parameters.
- The vision of the National Mission for Clean Ganga (NMCG) is long term and hence the capability being created would fully take care of the requirements up to 2035.

About Hybrid Annuity

- Hybrid Annuity Model (HAM) has been introduced by the Government to revive PPP (Public-Private Partnership) in highway construction in India.
- In financial terminology, a hybrid annuity means that the government makes payment in a fixed amount for a considerable period and then in a variable amount in the remaining period.
- This hybrid type of payment method is called HAM in the technical parlance.
- At present, three different models –PPP Annuity, PPP Toll and EPC (Engineering, Procurement and Construction) were followed by the government while adopting private sector participation.

Features of HAM



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- The HAM is a mix between the existing two models – BOT (Build Operate and Transfer) Annuity and EPC Engineering, Procurement and Construction) Model.
- As per the design, the government will contribute to 40% of the project cost in the first five years through annual payments (annuity).
- The remaining payment will be made on the basis of the assets created and the performance of the developer.

Advantages of HAM:

- It gives enough liquidity to the developer and the financial risk is shared by the government.
- While the private partner continues to bear the construction and maintenance risks as in the case of BOT (toll) model, he is required only to partly bear the financing risk.
- Government's policy is that the HAM will be used installed projects where other models are not applicable.

Topic- GS Paper 3 –Economics (Various Models)

Source- PIB

5. Aerial seeding and Dart Seeding

- The Delhi High Court has recently asked forest authorities whether “planting of seeds could be done by throwing dart shots containing them from helicopters into forest areas which help in reducing air pollution in Delhi.

About Aerial seeding

- It is a well-established concept, but this is generally achieved not with darts but by spraying seeds through an aircraft or a drone.
- Aerial seeding can be used not only to plant various crops but also to spread grasses to large areas of the land after wildfires, a common problem in countries like the United States.

Benefits of Air Seeding

- It is quicker and more effective than planting manually.
- It also allows access to areas where the terrain is rocky or at high elevation.
- It has been used with varying degrees of success around the world.

Dart seeding

- Dart seeding is used with the same broad objective as aerial seeding: a plantation in inaccessible areas.
- The process involves throwing darts containing seeds onto open ground.
- In aerial seeding, many seeds fail to germinate and if dart plantation is done from a low-flying helicopter, seeds have a relatively better chance of survival as they reach deeper into the ground.



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- At the late 1990s, a variation of dart seeding was used in Asola Bhatti Wildlife Sanctuary.

Note:

- Plantation with both aerial and dart plantations are carried out close to the onset of monsoon as watering the seeds is often challenging in inaccessible areas.

Topic- GS Paper 3 –Environment

Source- Indian Express

6. **Torrefaction: A Swedish technology to reduce stubble burning**

- The government recently thought to use Torrefaction, a Swedish technology to reduce stubble burning which is the key contributor to the sharp decline in air quality in Delhi.

About Torrefaction

- It is a thermochemical process typically at 200-350 °C in the absence of oxygen, at atmospheric pressure with low particle heating rates and a reactor time of one hour.
- The process causes biomass to partly decompose, creating torrefied biomass or char, also referred to as 'bio coal'.
- Bio coal has higher energy content per unit volume, and torrefaction followed by palletization at the harvest sites facilitates transport over longer distances.
- It also avoids problems associated with the decomposition of biomass during storage.
- It help to convert about 65% of the biomass could be converted to energy.

Topic- GS Paper 3 –Science and Technology

Source- Indian Express

7. **Maintenance and Welfare of Parents and Senior Citizens Bill, 2019**

- Union Cabinet has approved the Maintenance and Welfare of Parents and Senior Citizens (Amendment) Bill, 2019.
- The Bill seeks to amend the Maintenance and Welfare of Parents and Senior Citizens Act, 2007.
- The aim of the bill to provide for the maintenance and welfare of parents and senior citizens for ensuring their basic needs, safety and security, establishment, management, and regulation of institutions and services, and rights guaranteed under the Constitution.

The key features of the act 2007, as per a summary published by PRS Legislative Research, were:

1. Children and heirs were legally obligated to provide maintenance to senior citizens.



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2. State governments were permitted to establish old age homes in every district.
3. Senior citizens who are unable to maintain themselves were given the right to apply to a maintenance tribunal seeking a monthly allowance from their children or heirs.
4. State governments were to set up maintenance tribunals in every subdivision to decide the level of maintenance. Appellate tribunals were to be established at the district level.
5. State governments were to set the ceiling for the maximum monthly maintenance allowance. The Bill capped the maximum monthly allowance at Rs 10,000 per month.
6. Punishment for not paying the required monthly allowance was fixed at Rs 5,000, or up to three months in prison, or both.

The major salient features” of the proposed Maintenance and Welfare of Parents and Senior Citizens Amendment Bill 2019.

- i. Definition of ‘children’ and ‘parents’ has been expanded.
- ii. Definition of ‘maintenance’ and ‘welfare’ has been expanded.
- iii. Mode of submission of application for maintenance has been enlarged.
- iv. The ceiling of Rs 10,000/- as maintenance amount has been removed.
- v. Preference to dispose of applications of senior citizens, above eighty years of age, early has been included.
- vi. Registration of Senior Citizens Care Homes/Homecare Service Agencies etc. have been included.
- vii. Minimum standards for senior citizen care homes has been included in the Bill.
- viii. Appointment of Nodal Police Officers for Senior Citizens in every Police Station and District level Special Police Unit for Senior Citizens has been included.
- ix. Maintenance of Helpline for senior citizens has been included.

Topic- GS Paper 2 –Governance

Source- Indian Express

8. Global Climate Risk Index 2020

- An environment think tank, Germanwatch has released Global Climate Risk Index 2020.

Highlight of the index

- According to the index, Japan is the most affected followed by the Philippines as well as Germany in 2018 followed by Madagascar, India and Sri Lanka.
- The heatwave was one of the major causes of damage in 2018.
- Among the top ten most affected countries, India, Germany and Japan suffered from extended periods of a heatwave during 2018.
- **India’s rank has worsened from the 14th spot in 2017 to 5th in 2018 in the global vulnerability ladder.**

Reason for ranking



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- In 2018, a severe summer heatwave in Japan killed 138 people and caused more than 70,000 people to be hospitalised with heatstroke and exhaustion.
- India suffered water shortages, crop failures and worst flooding.
- The Philippines was hit by Typhoon Mangkhut in September 2018, which was categorized as a category 5 typhoon, the most powerful typhoon recorded worldwide in 2018.
- The Philippines were battered by top-strength Typhoon Mangkhut.
- In Germany, the period from April-July 2018 was the hottest ever recorded in the country, leading to the deaths of over 1,200 people.
- In Madagascar, two cyclones killed about 70 people and forced 70,000 to seek refuge.

Topic- GS Paper 3 –Environment

Source- Down to Earth

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