

AGRICULTURE**Promoting Drone Use in Agriculture**

Recently, the Ministry of Agriculture and Farmers Welfare has issued revised guidelines of the “Sub-Mission on Agricultural Mechanization” (SMAM) scheme in a move aimed at making drones more accessible to the farmers. The funding guidelines will make this technology affordable by assisting in purchase, hiring and demonstrations of agriculture drones.

- The financial aid and grants shall be applicable till 31st March 2023.
- SMAM scheme was launched in 2014-15 with the objectives of increasing the reach of farm mechanization to small and marginal farmers and to the regions & difficult areas where farm power availability is low.

Key Points**40-100% Subsidy:**

- A grant up to 100% of the cost of agriculture drone or Rs.10 lakhs, whichever is less, as a grant for the purchase of drones will be provided. But, this 100% grant will be limited to only Farm Machinery Training and Testing Institutes, Indian Council of Agricultural Research (ICAR) institutes, Krishi Vigyan Kendras and State Agriculture Universities.

Subsidy to Agriculture Graduates:

- Agriculture graduates establishing Custom Hiring Centers (CHCs) will be eligible to receive 50% of the basic cost of a drone and its attachments or up to Rs. 5 lakh in grant for drone purchases.

Subsidy to FPOs or Cooperative Society of Farmers:

- Existing CHCs or new ones, already or to be set up by cooperative society of farmers, Farmer Producers Organizations (FPOs) and rural entrepreneurs are entitled to receive 4% (maximum Rs. 4 lakh) as grant on the basic cost of drone.
 1. CHCs are the main agencies at grassroots to popularize farm mechanization and unless they are given the incentives, drone use will not gather momentum.
 2. Rural entrepreneurs are defined as those who have passed the class tenth examination from a recognised Board and have a remote pilot license from an institute recognized by the Director-General of Civil Aviation (DGCA).

Demonstration Purposes:

- The FPOs would be eligible to receive a subsidy of 75% of the cost of the drone if used only for demonstration purposes.
- Additionally, Rs. 6,000/hectare would be given to these implementing agencies that hire drones from CHCs, Hi-tech Hubs, drone manufacturers and start-ups for demonstrations.
- But, they would receive Rs 3,000/hectare if they purchase the drones for demonstrations.

Significance:

- The subsidized purchase of agriculture drones for CHCs/Hi-tech Hubs will make the technology affordable, resulting in their widespread adoption.
- This would make drones more accessible to the common man in India and will also significantly encourage domestic drone production.

Other Related Initiatives:

1. Sub-Mission on Agroforestry Scheme.
2. National Mission for Sustainable Agriculture.
3. National Food Security Mission.
4. Rashtriya Krishi Vikas Yojana (RKVY).
5. Mission for Integrated Development of Horticulture.
6. Pradhan Mantri Krishi Sichayee Yojana (PMKSY).
7. Pradhan Mantri Fasal Bima Yojana.
8. Paramparagat Krishi Vikas Yojana.
9. Agriculture/Farm Mechanization

About:

- Mechanised agriculture is the process of using agricultural machinery to mechanise the work of agriculture.
- To boost up mechanization in the agriculture sector, improved agricultural implements and machinery are essential inputs.

Level of farm Mechanization:

- India stands at about 40-45% with states such as UP, Haryana and Punjab having very high mechanization levels, but north-eastern states having negligible mechanization.
- This level of farm mechanization is still low as compared to countries such as the US (95 %), Brazil (75%) and China (57%).

Significance:

- It plays a vital role in optimizing the use of land, water energy resources, manpower and other inputs like seeds, fertilizers, pesticides etc to maximize the productivity of the available cultivable area and make agriculture a more profitable and attractive profession for rural youth.
- It is one of the key drivers for the sustainable development of the agriculture sector.

Negative Impact:

- Reduce workforce hence decreases farm employment.
- Use of machinery increases pollution.

BIODIVERSITY

Environmental Emergency in Peru

The Peruvian government declared a 90-day “environmental emergency” in damaged coastal territories, after an oil spill that saw 6,000 barrels of crude oil pour into the sea. The spill was caused by freak waves, which resulted from the eruption of a volcano in Tonga.

The oil spill came out of a tanker belonging to the Spanish energy firm Repsol. The incident occurred at the La Pampilla refinery, some 30 kilometers north of the Peruvian capital of Lima in the Ventanilla district of the port city of Callao.

Key Points

About Freak Waves:

- A freak wave or rogue wave is usually defined as a wave that is two times the significant wave height of the area.
- The significant wave height is the average of the highest one-third of waves that occur over a given period. Rogue waves can disable and sink even the largest ships and oil rigs.
- These so-called “freak waves” are not confined to the Atlantic Ocean or North Sea.
- One of the places rogue waves appear to happen most frequently is off the southeast coast of South Africa.

Oil Spill:

About:

- An oil spill refers to any uncontrolled release of crude oil, gasoline, fuels, or other oil by-products into the environment. Oil spills can pollute land, air, or water, though it is mostly used for oceanic oil spills.

Major Causes:

- Oil spills have become a major environmental problem, chiefly as a result of intensified petroleum exploration and production on continental shelves and the transport of large amounts of oils in vessels.
- Oil spills that happen in rivers, bays and the ocean most often are caused by accidents involving tankers, barges, pipelines, refineries, drilling rigs and storage facilities.

Environmental Impacts:

- **Threat to Indigenous people:** Oil pollution poses health hazards for the indigenous population who depend on seafood.
- **Harmful to aquatic life:** Oil on ocean surfaces is harmful to many forms of aquatic life because it prevents sufficient amounts of sunlight from penetrating the surface, and it also reduces the level of dissolved oxygen.
- **Hypothermia:** Crude oil ruins the insulating and waterproofing properties of feathers and fur of birds. Thus, oil-coated birds and marine mammals may die from hypothermia (decrease in body temperature to below-normal levels).
- **Toxic Effects:** Moreover, ingested oil can be toxic to affected animals, and damage their habitat and reproductive rate.
- **Threat to Mangroves:** Saltwater marshes and Mangroves frequently suffer from oil spills.

Economic Impacts:

- **Tourism:** If beaches and populated shorelines are fouled, tourism and commerce may be severely affected.

- **Power Plants:** The power plants and other utilities that depend on drawing or discharging sea water are severely affected by oil spills.
- **Fishing:** Major oil spills are frequently followed by the immediate suspension of commercial fishing.

Remedies:

- **Bioremediation:** Bacteria can be used to clean up oil spills in the ocean through bioremediation.
 1. Specific bacteria can be used to bioremediate specific contaminants, such as hydrocarbons, which are present in oil and gasoline.
 2. Using bacteria such as *Paraperlucidibaca*, *Cycloclasticus*, *Oleispira*, *Thalassolituus* *Zhongshania* and some others can help remove several classes of contaminants.
- **Containment Booms:** Floating barriers, called booms, are used to restrict the spread of oil and to allow for its recovery, removal, or dispersal.
- **Skimmers:** They are devices used for physically separating spilled oil from the water's surface.
- **Sorbents:** Various sorbents (e.g., straw, volcanic ash, and shavings of polyester-derived plastic) that absorb the oil from the water are used.
- **Dispersing agents:** These are chemicals that contain surfactants, or compounds that act to break liquid substances such as oil into small droplets. They accelerate its natural dispersion into the sea.

Related Laws in India:

- Presently, there is no law covering oil spill as such and its consequential environmental damage in India but India has “the National Oil Spill Disaster Contingency Plan of 1996 (NOS-DCP)” to handle such situations.
 1. The document was issued by the Ministry of Defense in 1996, it was last updated in March 2006.
 2. It gives the Indian Coast Guard the mandate to coordinate with state departments, ministries, port authorities and environmental agencies to assist in oil spill cleaning operations.
- In 2015 India ratified the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (Bunker Convention).
 1. Convention ensures adequate, prompt and effective compensation for damage caused by oil spills.
 2. It is administered by the International Maritime Organization (IMO).

2. Indian Environment Service (IES)

Recently, the Supreme Court asked the Centre to establish a dedicated Indian Environment Service (IES) at the all-India level. The creation of IES was recommended by a committee headed by former Cabinet Secretary TSR Subramanian in 2014.

Key Points

- **About:** It will act as an expert group in the public and quasi-governmental sectors over the next decades, regarding environmental matters.
- **Need:** The constant environmental degradation, ecological imbalance, climate change, water scarcity, etc. are a great concern for India.
 1. The citizens are facing many environmental issues such as air pollution, water pollution, non-eradication of solid waste and garbage and pollution of the natural environment.
 2. One of the major causes of environmental degradation is the flaw of the existing system that lies in the enforcement capabilities of environmental institutions at various levels.
- **Observations of TSR Subramanian Committee:** Looking at the current administrative set-up, it can be inferred that the government servants might not be able to spare special time for environmental causes.
 1. **Lack of Specailised Cadre:** There is a lack of trained personnel involved in the administration, policy formulation, and supervising the implementation of policies of the state and central governments.
 2. India had a strong environmental policy and legislative framework but weak implementation has resulted in environmental governance being criticised by conservation experts and the judiciary.

3. It pointed out that there was no effective coordination amongst various Ministries/institutions regarding the integration of environmental concerns.

- **Associated Challenges:** IES will overlap with the already existing one All India Service (Indian Forest Service). Apart from this, IES will also pose the challenge to federal structure.

Way Forward

The creation of new All India Services emanates from the fact that AIS officers have a generalist approach whereas contemporary challenges require a more specialized approach.

In order to maintain a balance between the two, an Indian Environmental Service Academy can be set up, in order to train officers for enforcing environmental laws.

PRELIMS FACT

Relocating the Amar Jawan Jyoti to National War Memorial

Recently, the International Counter Terrorism Conference 2022 was organised by the Global Counter Terrorism Council (GCTC). GCTC is an International Think-Tank Council with an overarching mission of reducing the vulnerability of people worldwide to terrorism by preventing, combating and prosecuting terrorist acts and countering incitement and recruitment to terrorism.

Earlier, in the 13th BRICS Summit held in 2021, BRICS counter terrorism action plan was adopted.

Key Points

Issues Raised by India:

- **Emergence of New Religiophobia:**

1. Emergence of new “religiophobia”, especially against Hindus, Buddhists and Sikhs, is a matter of serious concern and needs to be recognised, just like Christianophobia, Islamophobia and anti-semitism, to bring a balance in discussions on such issues.
2. Religiophobia: An irrational or obsessive fear or anxiety of religion, religious faith, religious people or religious organisations.

- **Labeling Terrorism:**

1. In the past two years, several Member States have been trying to label terrorism into categories such as racially and ethnically motivated violent extremism, violent nationalism, right wing extremism, etc.
2. Calling it a “dangerous” tendency, India said this goes against some of the accepted principles agreed to by all UN Member States in the recently adopted Global Counter-Terrorism Strategy. Global Counter-Terrorism Strategy states that terrorism in all its forms and manifestations should be condemned and there cannot be any justification for any act of terrorism, whatsoever.

India's Efforts to Counter Terrorism:

- **India's Annual Resolution on Counter-Terror:**

1. India's annual resolution on the issue of counter-terrorism was adopted by consensus in the First Committee of the United Nations General Assembly (UNGA).
2. India, a victim of state-sponsored cross-border terrorism, has been at the forefront in highlighting the serious threat to international peace and security emanating from acquisition of weapons of mass destruction by terrorist groups.

- **Comprehensive Convention on International Terrorism:**

- Amid growing fears that terrorists will again nest in Afghanistan and increase attacks in Africa, India's foreign minister has recently urged for the adoption of the convention.
 1. In 1996, with the objective of providing a comprehensible legal framework to counter terrorism, India proposed to the UNGA the adoption of the "Comprehensive Convention on International Terrorism" (CCIT).
 2. CCIT seeks a universal definition of terrorism, prosecution of terrorists under special laws, making cross-border terrorism an extraditable offence worldwide, among others.

Financial Action Task Force (FATF):

- India is a member of FATF whose objective is to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

Terrorism in India:

- Unlawful Activities (Prevention) Amendment Act is the primary anti- terrorism law in force in India.

- The National Security Guard (NSG) is a paramilitary force that is primarily responsible for counterterrorism and anti-hijacking operations.
- India faces terrorism from secessionists in Kashmir, the north-east and to an extent in Punjab, from left-wing extremist groups in central, east-central and south-central India.
- India is one of the countries which is most affected by terrorism in the world.

Way Forward

- War against terrorism is a low intensity conflict or localized war and cannot be waged without the full and unstinted support of the society and can be lost easily if the morale and resolve of the society to fight against terrorism falters.
- For India, there is a need to reassess the policies on a number of issues pertaining to the management of India's international borders such as intelligence apparatus, internal security and border management.
- Technical solutions are necessary to augment and complement the traditional methods of border guarding.

DAILY ANSWER WRITING PRACTICE

Qns. Article 32 protects other Fundamental rights of the citizens of India and is regarded as the 'heart and soul of the constitution'. Comment (150 Words)Ans:

Introduction

Article 32 falls under Part III of the Constitution that includes the fundamental rights of individuals. It allows an individual to approach the Supreme Court if she or he believes that her or his fundamental rights have been violated or they need to be enforced. Dr B.R. Ambedkar had once said, "If I was asked to name any particular article in this Constitution as the most important — an article without which this Constitution would be a nullity — I could not refer to any other article except this one (Article 32). It is the very soul of the Constitution and the very heart of it."

Body

Rationale behind Article 32 called the heart and soul of the constitution:

- Right to constitutional remedies works on the Doctrine "Ubi Jus Ibi Remedium" which means when there is a right there is a remedy.
- It gives the power to the citizens of India to go directly to the Supreme Court of India, rather than by way of appeal, if they feel that any of their Fundamental Rights have been violated. Article 32 makes the Supreme Court the defender and guarantor of the fundamental rights.
- Article 32 came out to be the greatest safeguard that could be provided to protect the fundamental rights of the citizens and "It is a right fundamental to all the other Fundamental Rights".
- Courts, as the judicial sentinel of the fundamental rights, are equipped with constitutional weapons i.e., WRITS.
- Writs which are being performed both by The Supreme Court and The High Court under Article 32 and 226 are for the violation and enactment of the Fundamental Rights.
- Both the courts have the power to issue directions, orders, and writs, including writs of Habeas corpus, Mandamus, Prohibition, Quo warranto, and Certiorari, for the enforcement of any of the rights.
- On the other hand, Parliament has the right to empower any other court with such authority so that it can act as "Protector and guarantor" of such rights.

Supreme Court in basic structure doctrine made clear that right to move to Supreme Court cannot be suspended except otherwise provided by the Constitution. This implies that this right suspended during a national emergency under article 359

Conclusion

The constitutional remedies provided to the citizens are the most powerful orders with immediate effects and results and that is why it has always been considered as the most important fundamental right engrafted in the Constitution of India. The Constitution of our country isn't rigid and the various cases and court proceedings keep on challenging the basic structure of the Constitution. Article 32 still ensures that the fundamental rights of the citizens will always be protected and enforced by the Judiciary of India. And no citizen will be left unheard and deprived of his/her rights being the citizens of an independent country.

DAILY QUIZ

Q1. The article 142 of the Indian Constitution, sometimes seen in news is related to:

- original jurisdiction of the supreme court
- measures taken by the supreme court to do complete justice**
- appellate jurisdiction of supreme court in appeals from high courts
- conferment on the supreme court of powers to issue certain writs

Q2. With reference to Asian Infrastructure Investment Bank (AIIB), consider the following statements:

- It was established in the year 1966.
- It is headquartered in Beijing.

The regional members hold 75% of the total voting power in the Bank.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only**
- 1 and 3 only
- 1, 2 and 3

Q3. Consider the following statements:

- INS Vikrant (IAC-I) is the first aircraft carrier built in India.
- It is constructed by the Cochin Shipyard Limited (CSL) for the Indian Navy.

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2**
- Neither 1 nor 2

Q4. Recently, Reciprocal Access Agreement (RAA) was signed between which of the following nations?

- Australia and Japan**
- India and China
- Japan and South Korea
- India and Bhutan

Q5. The Global State of Democracy Report, 2021 was recently released by the

- National Democratic Institute
- Democracy International
- International Institute for Democracy and Electoral Assistance**
- National Endowment for Democracy