

General Studies-3; Topic – Indigenization of technology and developing new technology

India's First Drone Policy

1) Introduction

- Government of India's Ministry of Civil Aviation announced guidelines for drones aiming to open up opportunities in the Indian civil aviation sector.
- The government has set up a regulatory framework for drone operations, including commercial use.
- It will come into force from December 1.

2) Need For Drone Policy

- The military in India has been using drones since 1980s, and world's 13% of all military drones are in India.
- Since last few years, civilians in India had started flying drones.
- As the cost of drones came down, civilians started ordering drones from China.
- When untrained civilians start using drones, it can cause accidents and mishaps.
- It was necessary to develop global standard drone regulations that would permit, with appropriate safeguards.
- So the Government came up with its first Drone Policy, which can solve the complications.
- Investor confidence was low given that there was no clarity on the legality of drones. That will change now.

3) Highlights of the Policy

- The drone policy has been made keeping in mind several parameters such as the height at which a drone can travel, the area in which it can be used, registration of the drone and more.
- Owners and pilots of the drone need to be registered with the ministry.
- Permission for flying a drone needs to be applied via an app.
- As per the ministry, during daytimes, a drone can be flown up to a height of 400 meters.
- There will be special 'No Drone Areas' such as airports, near international borders and especially in some areas of vital military installations and such.
- It is mandated for obtaining a Unique Identification Number (UIN) and Unmanned Aircraft Operator Permit (UAOP) for flying of drones, with exemptions in certain cases.
- Although private operators can use drones across various sectors like health, agriculture, disaster relief, the current policy clearly bars the delivery of items by drones for now.
- An all-digital process for registering and operating drones.
- It is called as the Digital Sky Platform and is "first-of-its-kind national unmanned traffic management (UTM) platform that implements 'no permission, no takeoff' (NPNT)."
- This UTM will be in close contact with the defense and civilian air traffic controllers (ATCs) so that the drones remain on the correct course.

4) Significance

- India is one of the largest importers of drones.
- The Drone Policy is aimed at regulating the practice of civilians flying drones in India.
- The drone market in India holds the potential of hitting over \$1 trillion.
- The guidelines would help foster technology and innovation in the development of drones.
- The regulations will encourage a vast Made in India drone industry.

- It will place the country among the global leaders in drone technology.
- The policy will usher in a new idea of “drone micro-entrepreneurs.”
- The commercial drone industry could create jobs for Indian youth.
- Drones can also contribute to the export market.

5) International Practice

- In U.S., the Federal Aviation Agency (FAA) allows the civilian use of drones with caveats, while their commercial use is licensed.
- Various countries of the European Union (EU) currently have multiple regulations covering drone flights.
- Many countries are still experimenting with their drone regulations.
- No ICAO (International Civil Aviation Organisation) stands have been developed.

6) Advantages

- While drones have historically been used in military operations, their application for peaceful purposes has risen steeply in recent years.
- Drones have an extensive range of applications like disaster relief, GIS mapping, Crowd Monitoring, Traffic management, and detection of suspicious activities etc.
- In recent times, Drones have been recognised as an effective tool for planning, management, and decision-making, locally and globally.
- Aerial surveillance of crops, precision agriculture, and targeted pesticide spraying.
- In Madagascar, drones are being used to deliver medical supplies and equipment to remote areas.
- Drones can also provide accurate, detailed maps of key resources present.
- Show the demographic distribution which can help in identifying how social groups are segregated and distributed within a region.

7) Way Forward

- Flying drones safely in India will require research and development to understand how they can be best used in India’s unique landscape.
- The government needs to create the right ecosystem for drone operations to add to the economy’s automation dividend.