2. Telangana: Drone Delivery of Medical Supplies

Prelims: E-Governance

Mains: GS-II- E-governance- applications, Models, Successes, Limitations, and Potential

GS-II- Issues relating to Development and Management of Services relating to Health

Why in News?

- The Telangana government has adopted a framework to use drones for last-mile delivery of essential medical supplies such as blood and medical samples in an effort to increase the access to healthcare to communities across the state.

Details:

- The framework has been co-designed by the World Economic Forum (WEF) and Apollo Hospitals Group Healthnet Global Limited.
- In July, Telangana submitted a proposal for its drone policy to the Directorate General of Civil Aviation (DGCA).
- The state hopes to become 'beyond visual line of sight' (BVLOS) compliant, making commercial use of drones possible.
- The project is a part of the **WEF's "Medicine from the Sky" initiative** that aims to develop source materials for policymakers and health systems to analyse the challenges that come with drone delivery, and to compare this model with other competing delivery models.

What is a Drone?

- A drone is an aircraft that operates without a pilot on board and is referred to as an Unmanned Aerial Vehicle (UAV).
- It has three subsets: Remotely Piloted Aircraft (RPA), Autonomous Aircraft, and Model Aircraft.
- An RPA can be further classified into five types on the basis of weight: nano, micro, small, medium and large.
- RPAs are aircraft that are piloted from remote pilot stations.

Why Drones?

- **The core advantage of using drones:** reduction of the time taken to transport material, and improving supply chain efficiency.
- **Example of Rwanda**: drone-related pilot projects have been implemented on a national scale to deliver medical supplies without delay and at scheduled intervals.

- Adopting this framework brings Telangana one step closer to rolling out a system that could save lives.
- It outlines what challenges drones can solve, how to oversee operations and how to implement them.

Drone Regulations in India:

- In India, the **Directorate General of Civil Aviation (DGCA) under the Ministry of Civil Aviation** acts as the regulatory body in the field of civil aviation, responsible for regulating air transport and ensuring compliance to civil aviation requirements, air safety, and airworthiness standards.
- The DGCA's drone policy requires all owners of RPAs, except drones in the smallest 'nano' category, to seek permission for flights, and comply with regulations including registration, and operating hours (only during the day) and areas (not above designated high security zones).
- There is no blanket permission for flying BVLOS; the visual line of sight being 450 m with a minimum ground visibility of 5 km.
- The food delivery platform Zomato has tried out a drone to deliver a payload of up to 5 kg to a distance of 5 km, flying at a maximum speed of 80 km/h; however, **regulations do not yet allow the delivery of food by drones**.
- A change of regulations will be required before large-scale use of drones can be made possible for medical or other purposes.