

Indian Army Enhancing Operational Preparedness

For Prelims: Emergency Procurement, <u>UAVs</u>, Tethered drones, <u>SWARM Drones</u>, <u>Make projects, iDEX</u> (<u>Innovation for Defence Excellence</u>)

For Mains: Significance of enhancing capabilities of Indian armed forces

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Why in News?

To enhance its overall operational preparedness, the Indian Army has signed contracts for the procurement of 130 tethered drones and 19 tank-driving simulators under Emergency Procurement (EP).

The long-endurance tether drone systems can be used in high-altitude areas.

Note:

■ The emergency financial powers were first given to the **armed forces** after the **2016 Uri attack** to help them circumvent the slow bureaucratic system of procurement. Under these powers, the **services can ink contracts worth Rs 300 crore** each on their own.

What are Tethered Drones and Simulators?

- **Tethered Drones:** Tethered drones are a category of <u>unmanned aerial vehicles (UAVs)</u> linked to a ground-based station via a tether.
 - These tethered drone systems, with wings that span both day and night, are meant to be watchful protectors, sending important data and video feeds to enhance border security continuously.
 - Beyond aviation, tethered drones are a paradigm shift in surveillance, virtually anchored to the ground while bearing vital loads like cameras and radios.
 - With their advanced sensor technology and ability to provide an uninterrupted view of vast areas, Tethered Drones can play a crucial role in enhancing situational awareness and tactical decision-making on the battlefield.
- Simulators: The simulators are supposed to virtually help in the training of the drivers of tanks and infantry combat vehicles (ICV) and will contribute to minimising wear and tear on tanks and ICVs during training.

How is the Indian Army Enhancing its Preparedness in Recent Times?

• The army is observing 2023 as the 'Year of Transformation', and is working on several projects

to reshape and remodel the functional processes to bring in a "quantum jump in its capabilities".

- Since the <u>India-China stand-off in Eastern Ladakh in 2020</u>, the Army has concluded a series
 of contracts with Indian start-ups for small drones for surveillance and load-carrying.
- Niche technologies like logistic and nano drones, counter-drones, loiter munitions, <u>SWARM</u> <u>drones</u>, UAV-launched precision-guided missiles, and automatic spectrum monitoring systems, are being procured.
- Aligning with the larger vision of <u>'Atmanirbharta'</u>, the Army is achieving modernisation with indigenisation through various modes, such as <u>'Make' projects</u>, <u>iDEX (Innovation for Defence Excellence)</u>, and outreach programs like setting up of 'Army Cells' at leading technology institutions to promote R&D aligned with the army's requirements.

What are Some Initiatives to Boost Domestic Production of Defence Equipment?

- Defence Industrial Corridors
- Corporatization of the Ordnance Factory Boards
- Defence India Startup Challenge
- Draft Defence Production and Export Promotion Policy 2020
- Innovations for Defence Excellence (iDEX)
- Mission Raksha Gyan Shakti
- Indian Navy Indigenisation Plan (INIP) 2015-2030
- Naval Innovation and Indigenisation Organisation (NIIO)

Why is it Significant for the Indian Army to Enhance its Capabilities?

- National Security: Given India's complex geostrategic environment and its history of conflicts, bolstering defence capabilities is essential to safeguard its borders and citizens.
- **Deterrence**: India's robust defence forces can discourage adversaries from initiating conflicts or hostile actions, contributing to regional stability.
- **Conflict Resolution**: In the unfortunate event of a conflict, superior defense capabilities can lead to quicker and more favorable conflict resolutions.
- **Counter Terrorism:** India has faced numerous instances of terrorism and insurgent activities; enhanced defence capabilities allow for more effective counterterrorism operations.
- **Strategic Autonomy**: Strengthening defence capabilities reduces dependency on external sources for defence equipment, technology, and expertise, enhancing India's strategic autonomy.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. What is "Terminal High Altitude Area Defense (THAAD)", sometimes seen in the news? (2018)

- (a) An Israeli radar system
- (b) India's indigenous anti-missile program
- (c) An American anti-missile system
- (d) A defence collaboration between Japan and South Korea.

Ans: C

Q. From which one of the following did India buy the Barak anti-missile defence systems? (2008)

(a) Israel

- (b) France
- (c) Russia
- (d) USA Ans: (a)

Q. In the context of the Indian defense, what is 'Dhruv'? (2008)

- (a) Aircraft-carrying warship
- (b) Missile-carrying submarine
- (c) Advanced light helicopter
- (d) Intercontinental ballistic missile

Ans: (c)

Mains:

Q. How is S-400 air defense system technically superior to any other system presently available in the world? **(2021)**

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