Defence & Security · GS - III

The use of unmanned aerial vehicles (UAVs) by our adversaries across the borders to ferry arms/ammunitions, drugs, etc., is a serious threat to the internal security. Comment on the measures being taken to tackle this threat.

EXAM YEAR	PAPER	SUBJECT
2023	GS - III	Defence & Security

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Cross-border UAVs combine low cost, difficult detection and remote operation to facilitate arms and narcotics smuggling; countering them requires integrated surveillance, counter-drone technology, intelligence sharing and border management.

Model Answer

Introduction

Unmanned Aerial Vehicles have emerged as a new tool for cross-border smuggling and covert operations. Their ability to fly at low altitude and carry payloads makes them a significant internal-security challenge along India's borders.

Body

Security Threat

UAVs can transport **weapons, ammunition, explosives, narcotics and communication equipment** while reducing the exposure of human smugglers. Their low radar signature and autonomous capabilities make

conventional border surveillance less effective.

Measures Being Taken

Anti-drone systems: Security agencies are deploying radar, radio-frequency detection, electro-optical systems and jammers to detect and disrupt hostile drones.

Border surveillance: Increased use of sensors, cameras, ground-based surveillance and integrated monitoring improves detection capabilities.

Intelligence coordination: Information-sharing among BSF, police, intelligence agencies and other security organisations helps identify trafficking networks.

Technological upgrading: Counter-UAV technologies capable of detecting, tracking and neutralising drones are being developed and deployed.

Physical security: Vulnerable border areas are being strengthened through fencing, lighting and enhanced patrolling.

International cooperation: Coordination with neighbouring countries can help address cross-border trafficking networks.

Legal enforcement: Seizure of drones and recovery of their payloads assists investigation and identification of larger criminal or terrorist networks.

Challenges

Rapid technological evolution, autonomous drones, swarm capabilities, difficult terrain and the possibility of civilian-drone misuse complicate countermeasures.

Conclusion

India requires a **layered counter-UAV architecture** combining detection, identification, interception, intelligence and prosecution. Continuous technological innovation and inter-agency coordination are essential to secure the country's borders against this emerging threat.