Project 18A – India’s Maritime Security

Mains: *GSIII – Security*

Why in News?

Project 18A envisages developing next-generation stealth guided-missile destroyers to enhance India's naval firepower in the changing maritime security environment in the Indo-Pacific, particularly China's expanding naval presence.

What is Project 18A?

- **Project 18A** – It is an indigenous next-generation destroyer programme aimed at developing larger, stealthier and technologically advanced guided-missile warships.
- **Approval** – The Defence Acquisition Council (DAC), chaired by the Defence Minister, has accorded in-principle approval.
- **Designed by** – Navy’s in-house Warship Design Bureau (WDB).
- **Displacement** – Expected to exceed 10,000 tonnes, compared with approximately 7,400 tonnes for Visakhapatnam-class destroyers.
- **Indigenous Content** – Aim for up to 75%.
- **Shipyard Participation** – Both public and private shipyards are expected to participate competitively.
- **Evolution of India's Indigenous Destroyers –** Project 18A will continue India's indigenous guided-missile destroyer development.
    - **Delhi Class** – Project 15.
    - **Kolkata Class** – Project 15A.
    - **Visakhapatnam Class** – Project 15B.
    - **Next Generation** – Project 18A.
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Why Does the Indian Navy Need Next-Generation Destroyers?

- **Changing Maritime Security Environment**
  - **Chinese Naval Presence** – Increasing Chinese naval deployments, submarines and research vessels intensify strategic competition in the Indian Ocean.
  - **Emerging Threats** – Unmanned systems, long-range precision weapons and hypersonic technologies are transforming naval warfare.
  - **Regional Security** – India requires stronger maritime capabilities to safeguard its strategic interests across the Indo-Pacific.
- **Protection of Maritime Interests**
  - **Sea Lane Security** – Protects critical maritime trade routes and commercial shipping.
  - **Indian Ocean Security** – Strengthens India's ability to maintain a credible naval presence across the Indian Ocean Region.
  - **Power Projection** – Supports India's strategic commitments and maritime influence across the Indo-Pacific.
- **Limitations of Existing Warships**
  - **Limited Missile Capacity** – Existing platforms face limitations in accommodating larger missile inventories.
  - **Sensor Constraints** – Advanced threats require improved surveillance, detection and electronic warfare capabilities.
  - **Future Readiness** – Larger platforms provide greater flexibility for integrating emerging weapons and technologies.

What are the Major Weapons and Technological Capabilities?

- **Advanced Missile Systems**
  - **BrahMos Missiles** – Expected to support supersonic anti-ship and land-attack operations.
  - **Long-Range Cruise Missiles** – Indigenous systems could strengthen long-range

offensive capabilities.
    - **Surface-to-Air Weapons** – Advanced missiles will support fleet air-defence operations.
- **Advanced Surveillance and Defence**
    - **Advanced Radars** – Enable improved detection and tracking of emerging aerial and maritime threats.
    - **Integrated Combat Systems** – Coordinate sensors, weapons and communication networks.
    - **Electronic Warfare** – Strengthens the ability to detect, counter and disrupt hostile systems.
    - **Multi-Threat Defence** – Designed to address ballistic missiles, hypersonic weapons and coordinated drone attacks.
- **Multi-Role Operational Capabilities**
    - **Carrier Protection** – Provides air and missile defence for aircraft carrier battle groups.
    - **Anti-Submarine Warfare** – Strengthens capabilities to counter hostile submarines.
    - **Offensive Operations** – Enables precision strikes against hostile naval and land-based targets.

What is the Significance of Project 18A for India?

- **Maritime Security** – Strengthens India's ability to protect maritime interests and strategic sea lanes.
- **Blue-Water Navy** – Enhances long-range operational endurance and power projection across the Indo-Pacific.
- **Strategic Deterrence** – Strengthens India's response capabilities against emerging maritime threats.
- **Defence Indigenisation** – Promotes domestic warship design, construction and defence manufacturing.
- **Technological Advancement** – Encourages indigenous development of advanced sensors, weapons and combat-management systems.
- **Industrial Development** – Creates opportunities for domestic shipyards, defence manufacturers and technology enterprises.

What area the Challenges in Implementing Project 18A?

- **Technological Complexity** – Integrating advanced radars, missile systems and electronic warfare technologies requires sophisticated capabilities.
- **Cost Overruns** – Large-scale warship programmes face risks of delays and escalating procurement costs.
- **Import Dependence** – Certain specialised components and technologies may continue to require foreign sourcing.
- **Execution Delays** – Design finalisation, competitive bidding and construction may affect project timelines.
- **Industrial Coordination** – Effective collaboration between the Navy, shipyards and domestic defence manufacturers is essential.

What is the Way Forward?

- **Strengthen Indigenisation** – Increase domestic development of propulsion systems, sensors, weapons and electronic components.
- **Promote Private Participation** – Encourage public-private partnerships in advanced warship construction.
- **Research and Development** – Strengthen collaboration between DRDO, research institutions and domestic defence industries.
- **Technology Integration** – Prioritise advanced surveillance, electronic warfare, missile defence and unmanned systems.
- **Project Management** – Ensure timely design finalisation, procurement and construction through effective institutional coordination.

What lies ahead?

- Project 18A represents an important step towards building a technologically advanced, self-reliant and capable blue-water navy.
- It can strengthen India's maritime deterrence, protect strategic interests and enhance its position in the Indo-Pacific.

Reference

The Hindu| Project 18A, and why is the Navy embarking on building futuristic warships?

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