



## EDITORIAL: THE HINDU

**GENERAL STUDIES 3: SECURITY**  
**TOPIC: WARFARE**

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### POINTING THE BEACON AT INDIA'S UNDERSEA WARFARE CAPABILITIES

#### Indian Navy's Expanding Role in 2024: Key Developments

##### 1. Expansion of Operation Sankalp

- **Purpose:** To ensure the security of international shipping lanes and counter piracy threats.
- **Geographical Extension:** Initially focused on the Strait of Hormuz, Operation Sankalp was expanded to the Red Sea.
- **Impact:** Strengthened India's role as a preferred maritime security partner, effectively countering piracy, hijacking, and drone attacks on merchant ships.

##### 2. Advancements in Undersea Warfare Capabilities

- **Key Objective:** To enhance operational preparedness and bolster India's undersea warfare capabilities.

##### 3. INS Arighaat Commissioning (August 2024)

- **Type:** Second indigenous nuclear-powered ballistic missile submarine (SSBN).
- **Significance:** Enhances India's nuclear deterrent and strengthens the third leg of the nuclear triad.
- **Key Features:**
  - Advanced sonar and upgraded acoustic dampening systems.
  - Improved propulsion system.
  - Higher indigenous content compared to INS Arihant.

##### 4. Successful K-4 SLBM Test

- **Range:** 3,500 km.
- **Strategic Impact:** Potential to strike most of China, further solidifying India's nuclear deterrence capability.



## 5. Approval of Project-77 (P-77)

- **Details:** The Cabinet Committee on Security approved the construction of two nuclear-powered attack submarines (SSNs) at a cost of ₹40,000 crore.
- **Timeline:** First SSN expected by 2036-37.
- **Indigenous Content:** Over 90% indigenous content.
- **Strategic Importance:** SSNs will protect deployed SSBNs and bolster India's underwater strategic capabilities.
- **Global Significance:** India will be the only non-P5 nation to operate both SSBNs and SSNs.

## 6. Developments in Conventional Submarines

- **Project-75 and Project 75(I):**
  - **INS Vaghsheer (Project-75):** The sixth Scorpene-class submarine is set to be commissioned soon.
  - **Future Submarines:** Plans to induct three more Scorpene-class submarines to replace older decommissioned boats, with 60% indigenous content.
  - **Project 75(I):** Aims to induct Air Independent Propulsion (AIP)-enabled submarines.
    - **Competitors:** Spain and Germany are contenders for the AIP system.
    - **Indigenous Content:** The initial AIP boats will have 45% indigenous content, increasing to 60% by the sixth boat.

## 7. Unmanned Underwater Vehicles (UUVs)

- **Approval:** 100-tonne UUVs to be built at a cost of ₹2,500 crore.
- **Purpose:** To enhance India's capabilities in niche undersea technologies.
- **Advantages:** UUVs provide cost-effective, high-return solutions to complex maritime threats, strengthening India's strategic maritime position.

## 8. Challenges Faced by the Navy

- **Budgetary Constraints:** Limited funds hinder the Navy's ability to fully modernize and expand its capabilities.
- **Delays in Modernization:** Ongoing delays in the execution of modernization projects hinder the timely induction of advanced systems.



- **Solution:** To overcome these challenges, there is a need for sustained funding, streamlined procurement processes, and efficient execution of modernization projects.

## 9. Opportunities for the Navy

- **Strategic Collaborations:** Strengthening ties with strategic partners supports India's maritime vision of **Security and Growth for All in the Region (SAGAR)**.
- **Regional Influence:** Enhanced undersea capabilities will contribute to a free, open, and inclusive Indo-Pacific, reinforcing India's maritime security role in the region.

## 10. Long-term Vision

- **Balanced Blue Water Force:** The Navy's goal is to create a balanced blue-water force capable of operating globally, ensuring maritime stability and security.
- **Global Positioning:** India's growing maritime power is poised to make a significant impact on global security and strategic maritime operations, especially in the Indo-Pacific region.

This overview highlights the key strategic advancements of the Indian Navy in 2024, underscoring its growing role in maritime security and its focus on undersea warfare. The Navy's efforts to modernize and expand its capabilities are vital to ensuring India's dominance in global maritime security.

**Source:** <https://www.thehindu.com/opinion/op-ed/pointing-the-beacon-at-indias-undersea-warfare-capabilities/article69016503.ece#:~:text=The%20addition%20of%20the%20SSNs,nation%20operating%20SSBNs%20and%20SSNs.>