



# India's Submarine Strength

## Why in News

Experts say India has lost a decade in modernising its submarine fleet, while China has marched ahead in its larger naval and more specific submarine capabilities.

- Submarines first became a major factor in naval warfare during [World War I \(1914-18\)](#), also played a similar role on a larger scale in [World War II \(1939-45\)](#).

## Key Points

- **Number of Submarines in India:**
  - Currently, India has **15 conventional diesel-electric submarines, classified as SSKs**, and **one nuclear ballistic submarine, classified as SSBN**. Most of India's submarines are over 25 years old, and many are getting refitted.
- **Classification of Submarines:**

Diesel-Electric Submarines (SSK)	Nuclear-Powered Attack Submarine (SSN)	Nuclear-Powered Ballistic Missile Submarine (SSBN)
<ul style="list-style-type: none"><li>▪ Diesel-electric submarines use electric motors charged by diesel engines to move. These engines require air and fuel to operate, which means they <b>need to resurface more frequently</b>, making them easier to detect.</li><li>▪ Of the SSKs, <b>four are Shishumar Class</b>, which were bought and then built in India in collaboration with the Germans starting in the 1980s.</li><li>▪ <b>Eight are Kilo Class or Sindhughosh Class</b> bought from Russia (including erstwhile USSR) between 1984 and 2000.</li><li>▪ <b>Three are <a href="#">Kalvari Class Scorpene submarines (P-75)</a></b> built at India's Mazagon Dock in partnership with France's Naval Group.</li></ul>	<ul style="list-style-type: none"><li>▪ SSNs can stay and operate under water almost indefinitely; their endurance is limited only by food supplies for the crew. They are also equipped with a range of tactical weapons, such as torpedoes, anti-ship cruise missiles and land-attack cruise missiles.</li><li>▪ <b>India is among six nations that have SSNs</b>, alongside the US, the UK, Russia, France and China.</li><li>▪ India has <b>INS Chakra 2 SSN Submarine</b> leased from Russia until 2022.</li></ul>	<ul style="list-style-type: none"><li>▪ A <b>slow-moving 'bomber' and a stealthy launch platform</b> for nuclear weapons.</li><li>▪ The <b>Arihant and three more SSBNs</b> under construction are part of the <a href="#">Strategic Forces Command</a>.</li></ul>

- **India's Modernisation Plan:**
  - **30 - Year Plan:** The 30-year plan (2000-30) for indigenous submarine construction, **approved by the Cabinet Committee on Security in 1999**, envisaged two production lines of six submarines each, built in India in partnership with a foreign [Original Equipment Manufacturer \(OEM\)](#).

- The projects were called **P-75 and P-75I**.
- It anticipated that India would get the 12 new submarines by 2012-15. Subsequently, India would make 12 of its own by 2030, taking the fleet size to 24, with the older submarines getting decommissioned.
- But the **contract for P-75 was signed only by 2005**, with France's DCNS, now the Naval Group.
- **P-75**: Of the six being built, **P-75 has delivered three Kalvari Class Scorpene submarines so far**.
- **P-75I**: It is **yet to take off**, the Request for Proposal was issued in July 2021.
- It will be **India's first under the Strategic Partnership Model**, which came up in 2015.
- **Challenges to Indian Naval Buildup:**
  - **China's Naval Prowess:**
    - India's underwater fleet continues to lack the requisite teeth despite the fact that high seas are the only domain in which India can checkmate China given its natural geographic advantages.
    - China already has the world's largest navy with 350 warships, including 50 conventional and 10 nuclear submarines.
  - **India's Delay in Modernisation:**
    - For example, delay in signing the contract for P-75.
  - **Shortfall in Indian Navy Essentials:**
    - There are other significant shortfalls of the Indian Navy including essentials capacities such as **"Advanced Towed Array Sonars (ATAS) to detect enemy submarines, heavyweight torpedoes** to neutralize them, and varied air defense systems, all of which are critical not only to their survivability, but also their overall offensive capability.
  - **Deal Cancellation:**
    - India cancelled a deal for the **heavy-weight Black Shark torpedoes**, built by the Finmecannica subsidiary WASS, as a result of an unrelated **corruption scandal** that involved another subsidiary of Finmecannica, Augusta-Westland.
  - **Slow Development of AIP System:**
    - The Air Independent Propulsion (AIP) system allows submarines to stay underwater for longer periods of time without being detected.
    - However, the development of the indigenous AIP system by the **Defence Research and Development Organization (DRDO)** has been delayed.
  - **Government's Less Attention to Navy:**
    - Much of the Indian budget is focused on the Army, with the air force being a distant second and the navy a poor third.
    - And with naval capability **building proving time-consuming and capital-intensive**, that leaves India stuck with a continued slow pace of development of its naval capabilities relative to other actors, even as competitors such as China forge ahead more quickly.

## Way Forward

- Unless the gap in naval prowess must be mitigated quickly, India will be handicapped further in countering China's desire to dominate the Indian Ocean.
- The defence bureaucracy must quickly address the modernisation delay if India is to walk the talk on **Quad (India, Australia, USA and Japan)** and its Indo-Pacific ambitions.
- India needs to change its decision-making processes and its complicated acquisitions process to

halt the slide in its relative capabilities.

**Source: IE**

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