



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">▪ Diesel-electric submarines use electric motors charged by diesel engines to move. These engines require air and fuel to operate, which means they need to resurface more frequently, making them easier to detect.▪ Of the SSKs, four are Shishumar Class, which were bought and then built in India in collaboration with the Germans starting in the 1980s.▪ Eight are Kilo Class or Sindhughosh Class bought from Russia (including erstwhile USSR) between 1984 and 2000.▪ Three are Kalvari Class Scorpene submarines (P-75) built at India's Mazagon Dock in partnership with France's Naval Group.	<ul style="list-style-type: none">▪ 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.▪ India is among six nations that have SSNs, alongside the US, the UK, Russia, France and China.▪ India has INS Chakra 2 SSN Submarine leased from Russia until 2022.	<ul style="list-style-type: none">▪ A slow-moving 'bomber' and a stealthy launch platform for nuclear weapons.▪ The Arihant and three more SSBNs under construction are part of the Strategic Forces Command.

- **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 Finmeccanica subsidiary WASS, as a result of an unrelated **corruption scandal** that involved another subsidiary of Finmeccanica, 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.

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