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)
▪ 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.	▪ 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.	▪ 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 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