

Project 75

[UPSC Notes]

What is Project 75?

Project 75 of the Indian Navy is a scheme of the Government of India that envisioned building six Scorpène class attack submarines at Mazagon Dock Shipbuilders Limited (MDL) in Mumbai.

- The Scorpène grade strike submarines are a group of diesel-electric impulsion submarines manufactured cooperatively by the Spanish company Navantia and the French Naval Group.
- The transfer of technology contract with France in 2005 allowed India to use indigenous resources while getting assistance from French technology.
- The idea was to put indigenous resources to their best use as well as learn more about submarine technology from the French.

History Of Project 75

In 1998, India negotiated a contract with French defense contractors DCNS to manufacture four Scorpène class attack submarines. This formed the base of Project 75.

- However, in 1999, after the end of the Kargil War, a new plan of thirty years was devised and approved by the Government of India.
- Self-reliance has been India's forte since Independence, and the new plan was conceived aligning with the same principle.
- This plan saw two parallel production lines — one under the pre-existing Project 75 and another under the new Project 75 India (more popularly known as Project 75I).

30-year Submarine Plan Under Project 75

In 1999, the Cabinet Committee on Security outlined a 30 years plan for submarine manufacturing. The plan included designing and building 24 conventional submarines by the end of 2030.

- Project 75 and Project-75I are two sister projects under this plan.
- Project 75 aimed to build six conventional diesel-electric fuelled Scorpène class attack submarines and was built by the Mazagon Dock Shipbuilders Limited (MDL).

- These are meant to be the most modern conventional submarines.
- Of the 24 submarines, 18 will be conventional, while the remaining six will be nuclear-powered.
- India has about 14 conventional submarines, of which only seven are working, and only one nuclear-powered submarine, INS Arihant.
- The only other nuclear-powered ballistic missile submarine INS Arihant will soon be commissioned.
- The Russian nuclear-powered submarine taken on lease by India is apparently on its way back home.

Six Submarines That Come Under Project 75

Project 75 was aimed at building six conventional Scorpène class attack submarines. The current status of the six submarines is —

- The first submarine under Project 75 was INS Kalvari. It was delivered in 2015 and joined service in December 2017.
- Within only two years, in September 2019, INS Khanderi, the 2nd submarine under Project 75, was deployed.
- The third submarine, INS Karanj, was inducted in March 2021.
- INS Vela, the fourth submarine under Project 75, joined the fleet in November 2021.
- The fifth submarine, INS Vagir, commenced in November 2020 and is anticipated to be appointed by the latter quarter of 2022.
- The sixth submarine completed under the project is INS Vagsheer. It is a reincarnation of the first Vagsheer, withdrawn from service in April 1997. The vessel is titled after the name of a fatal deep sea hunter in the Indian Ocean and was launched in April 2022.
- Despite all the progress that has been made, Project 75 is still a long overdue project that should have been finished by now.

Project-75I, A Sister Project

Project 75 India, more commonly known as Project -75I, is a follow-on of the previous Project 75.

- Project-75I was undertaken with the intention to build submarines bigger than the Scorpène class attack submarines of Project 75.

- Project-75I aims to improve upon the indigenous building capacities of submarines in India. It also intends to bring in the latest technologies to facilitate better understanding and development.
- In place of that, the Naval Group of France has withdrawn from Project-75I. They have announced their inability to participate as they were falling short of meeting India's Request for Proposal (RFP).
- The announcement was made a day before Prime Minister Narendra Modi visited Paris, France, in May 2022.
- It is intended for the submarines of Project-75I to have Air-Independent Propulsion (AIP).
- The group reasoned that they did not meet India's requirements. What India requires is for the fuel cell AIP to be sea-proven.
- However, the French Navy does not utilize a propulsion system in their submarines.
- This makes the French Naval Group unfit to participate in the bidding. Additionally, the participation of the Russian and Spanish companies is also somewhat uncertain.

Comparing Between Project 75 and Project-75I

Though they are sister projects, there are a few pivotal differences between Project 75 and Project-75I.

Project 75	Project-75I
<p>→Project 75, which began after the transfer of the technology contract with France in October 2005, is nearing its completion. It is estimated to be accomplished by the end of the year 2022.</p>	<p>→Project-75I is an ambitious project of the Government of India and is currently in a state of uncertainty. However, it is a long overdue project that is assumed to take approx—two years to begin. The estimable period is by the end of the year 2024.</p>

<p>→The Project is being tackled by Mazagon Dock Shipbuilders Limited (MDL) in Mumbai, Maharashtra.</p> <p>→The company is getting help from the French Naval Group, formerly DCNS.</p> <p>→The French Naval Group established a branch in India known as Naval Group India.</p> <p>→The company has its headquarters in Mumbai. Its sole purpose is to provide India with the necessary technology to build submarines.</p>	<p>→After the Government of India approved Project-75I, two Indian companies were shortlisted per the requirements.</p> <p>→The companies were Larsen and Toubro, a private company, and the government-owned Mazagon Dock Shipbuilders Limited.</p> <p>→However, as the Naval Group of France withdrew and announced its inability to participate as per the RFP, the Project remains in limbo.</p>
<p>→The Project 75 submarines, thought of excellent quality with modern technology, have diesel-electric propulsion, making it necessary for the vessels to come to the water's surface every 2-3 hours to gather oxygen for the fuel.</p>	<p>→The Project-75I submarines are planned to have fuel cells and an Air-Independent Propulsion System. The concept is that being independent of air allows the submarines to remain underwater for up to a fortnight. This would ensure greater stealth and lethality.</p>

Specialties of Scorpène Class Submarines Under Project 75

Project-75I proposes Scorpène-class submarines, one of the world's most technologically superior conventional submarines.

- With meticulously guided weapons, the submarines have superior stealth, low noise radiation levels, advanced acoustic silencing techniques, and acute attack abilities.
- In addition, they are furnished with torpedoes with the most advanced technologies, powerful ammunition, and the latest technology missiles that are accurately guided.
- These submarines are built to gather intelligence, surveillance of the area, and underwater warfare for laying underwater mines. The submarines pack enough strength to cause violent strikes on the surface and underwater.

- The submarines can travel underwater with a maximum speed of 20 knots (approx), dive below 350 meters, and remain submerged for up to a fortnight.
- While the submarines with diesel-electric propulsion systems had to come up to the surface of the water every few hours to charge their batteries, these submarines with AIP-based systems can stay underwater for up to a fortnight, increasing their stealth and lethality. Having no moving parts also lowers the probability of being detected by SONAR

Importance of Project 75, and Project-75I

Project 75 and Project-75I are significant in the Indian defense and economy field.

Boost the Indian Economy

One of the most significant benefits of Project-75 and Project-75I is the economic growth in India. In addition to opening new horizons in technology and designing submarines, it would also vastly strengthen the industrial sector by aiding the formation of a tiered ecosystem of submarine industry and construction of the same in India.

Self-reliance

India is one of the largest importers of warcraft in the world. It would also allow more usage of indigenous resources and supplies while helping to reduce the dependency on foreign companies and imports. This would also allow India to maintain its policy of self-reliance and align the defense sector with the Indian Government's 'Make in India' policy.

Protecting the Indo-Pacific

Given the hostile relationship between India and China, it becomes essential for India to strengthen its naval forces. China currently has the most potent Navy across the globe, intimately pursued by the United States of America. This poses a serious threat to India. India, on the other hand, has only 130 warships and 230 aircraft. Having submarines with the latest technologies helps India protect the Indo-Pacific from Chinese domination as well as acts as a strategic deterrent.

Aim Of Project 75 & Project-75I

The main aim of Project 75 and Project-75I is to provide the Indian private sectors with the ability to design and develop complicated and technologically advanced warcraft to meet the needs of the Indian Army in the future.

- Given that India imports almost all the arms, it has been a goal of the Government of India to reduce the import of arms and promote domestic manufacturing of military equipment.
- Therefore, reducing the import of military equipment would be beneficial to India economically.
- This would mean a reduction in national expenditure while promoting the export of warcraft with the latest technologies in the future as well as Indian resources for better usage.

