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Issue Brief

The P-75I Saga and India's Submarine-Building Journey

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Summary

After decades of delay, the P-75I programme is finally set to be initiated after the contract negotiations between MoD and MDL conclude. The Brief highlights the significance of the P-75I programme for India's larger efforts towards becoming a submarine-building nation.

The Project-75 India (P-75I) saga began in the late 1990s as a crucial part of India’s larger efforts to acquire the capability for designing and constructing advanced conventional diesel-electric submarines (SSK) indigenously. Over the next two decades, no substantial progress took place in the programme due to several deferments and delays. Finally, early this year, the Ministry of Defence (MoD) initiated contract negotiations with the Mazagon Dock Shipbuilders Limited (MDL) and German company ThessenKrupp Marine Systems (TKMS) for the construction of six SSKs under the P-75I programme. Currently, the P-75I is estimated to cost approximately Rs 70,000 crores, but this cost will likely be reduced after contract negotiations conclude.¹ Once the contract for the P-75I is inked, then the first SSK to be constructed under this programme can be expected to be delivered within the period of six to seven years.²

Initially, the P-75I programme was envisaged with the aim of bringing in certain technical attributes to India’s submarine building capability. But in 2007, the fundamental nature of this technical attribute was reinterpreted by the Indian Navy. This was a major inflection point that set the P-75I programme in a different trajectory. A decade later, another inflection point was brought about by the introduction of the Strategic Partnership Model (SPM). This is an acquisition policy promulgated by the MoD in 2017 to facilitate partnership between Indian companies and foreign Original Equipment Manufacturers (OEM) for the indigenous production of certain advanced military platforms including submarines.³ This policy altered the dynamics of foreign participation in the P-75I programme. The Brief revisits India’s 30-year submarine plan, examines the progression of P-75I within this plan and analyses the significance of the P75(I) to India’s submarine building capability.

The 30-Year Submarine Plan

In the late 1990s, the Indian Navy was at a crossroads due to the impending retirement of its four Kalvari-Class (Soviet Foxtrot Class) SSKs from its fleet. This left the Indian Navy with just four Shishumar-Class (German Type 1500) and eight Sindhughosh-Class (Russian Kilo Class) SSKs, both of which were procured during the 1980s. India’s growing threat perceptions especially in the maritime domain necessitated an urgent action-plan to address India’s shrinking submarine fleet. Taking stock of this security exigency in July 1999, India’s Cabinet Committee on Security (CCS) approved the plan for the ‘Project for Series Construction of Submarines for the Indian Navy and Acquisition of National Competence in

¹ [“Defence Ministry to Hold Talks with Mazagon Docks, German Co for 6 Submarines”](#), *The Times of India*, 24 January 2025.

² Ibid.

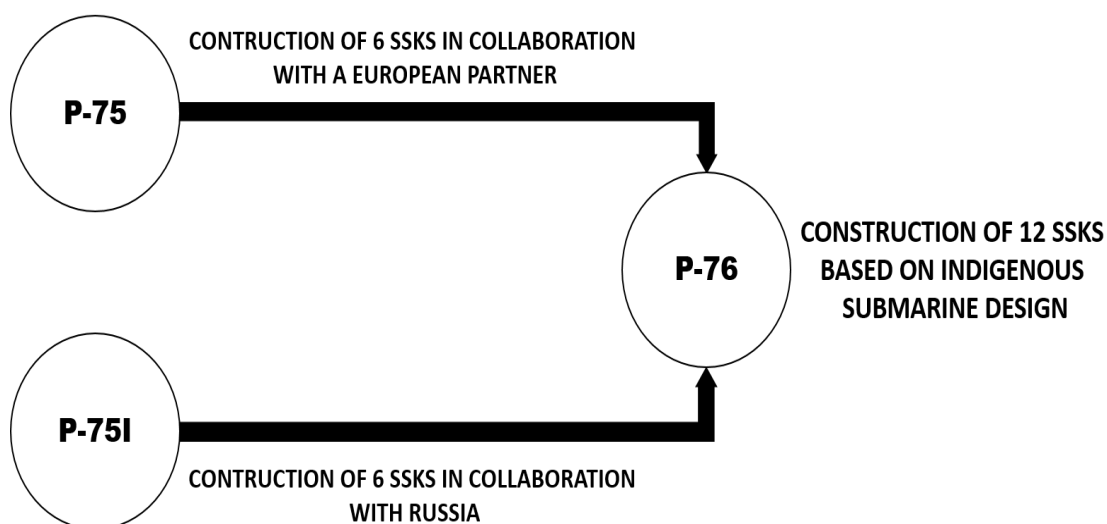
³ B.K. Pandey, [“Strategic Partnership”](#), SP’s Aviation, 2017.

Submarine Building’.⁴ This plan commonly referred to as the 30-Year Submarine Plan envisaged for the induction of 24 SSKs into the Indian Navy by 2030.

The plan sought to establish two parallel Line of Efforts (LOE) for indigenously constructing two different designs of SSKs with partnership between public and private industries. In the first LOE designated as Project-75 (P-75), India would partner with either France or Germany for constructing six SSKs that would incorporate Western design philosophy. In the second LOE designated as P-75I, India would partner with Russia for constructing six more SSKs that would incorporate Eastern design Philosophy.⁵

Both these production lines were to progress simultaneously and upon their conclusion, India would conceive an indigenous SSK design by integrating both these design philosophies. The rationale behind taking this approach was to combine the best aspects of both design philosophies and create a unique design for the indigenous construction of 12 state-of-the-art SSKs under a new programme designated as Project-76 (P-76). This plan was not only envisaged to meet the Indian Navy’s force requirements but also to enable India to achieve the status of a submarine-building nation. The roadmap as initially envisaged by the 30-year plan is shown in Figure 1.

Figure 1. The 30-Year Submarine Plan as Envisaged in 1999



The first phase of the 30-year plan was initiated in October 2000 when the MoD sent a Request for Proposal (RFP) to TCSF, France for the construction of SSKs under the P-75 programme. Subsequently in April 2001, the government initiated

⁴ “[Tenth Report Public Accounts Committee \(2009-10\)](#)”, Ministry of Defence, Government of India, February 2010.

⁵ Joseph P. Chacko, “[What Ails P-75 I Submarine Selection?](#)”, *Financial Express*, 17 November 2021.

negotiations with TCSF (which was later acquired by DCNS) for the construction of six SSKs based on their Scorpene Design. The negotiations took nearly four years to conclude and the final contract was signed on 6 October 2005 for the construction of six Scorpene submarines at the Mazagon Docks Limited (MDL) Mumbai at the cost of Rs 18,798 crores.

However, the construction of the submarines commenced only between 2006 and July 2009. Despite the depleting submarine force levels of the Indian Navy, it took nine years for the finalisation of the contract for constructing the six submarines under the P-75 programme. Some of the reasons for this delay were attributed to challenges arising from absorption of technology, gaps in the industrial infrastructure and procurement of materials.⁶ Finally, the first P-75 submarine, INS Kalvari was inducted into the Indian Navy on 14 December 2017 and the sixth submarine INS Vaghsheer was delivered on 9 January 2025. Hence, there was more than a decade-long delay in the materialisation of the P-75 programme.

As a result of this delay, the Indian Navy ended up acquiring only six submarines thus far out of the 24 submarines that were envisaged as per the 30-year plan. As brought out before, in consideration of this delay, India finalised a deal with France for the construction of three additional scorpene submarines in February 2025.⁷ The prolonged delay also resulted in inducing a major reorientation of the purpose and trajectory of the P-75I programme in the 30-year plan.

In line with the initial roadmap envisaged under the 30-year plan, India initiated the P-75I LOE alongside the P-75 LOE in the early 2000s. Reports suggest that as early as November 1999, India began negotiations with Russia’s Rosoboronexport for the acquisition and licensed production of the Amur-class submarines.⁸ However, no substantial progress was made regarding the P-75I for several years. Meanwhile the advent of advanced technologies like Air-Independent Propulsion (AIP), Lithium-Ion Batteries (LIB), Vertical Launch System (VLC) for launching Land Attack Cruise Missiles (LACM) and Electronic Warfare Systems (EWS) opened up possibilities to drastically increase the endurance and lethality of SSKs.

These factors led to a change in the thought process of the Indian Navy regarding the core objective of the P-75I. As brought out above, the P-75I was initially envisaged with the purpose of incorporating elements of Russian design philosophy into India’s indigenous submarine construction. But in light of the technological advancements, the P-75I was steered into a new direction with an objective to integrate the latest

⁶ “[Tenth Report Public Accounts Committee \(2009-10\)](#)”, no. 4.

⁷ “[List of Outcomes: Prime Minister Narendra Modi’s Visit to France](#)”, French Embassy in New Delhi, 12 February 2025.

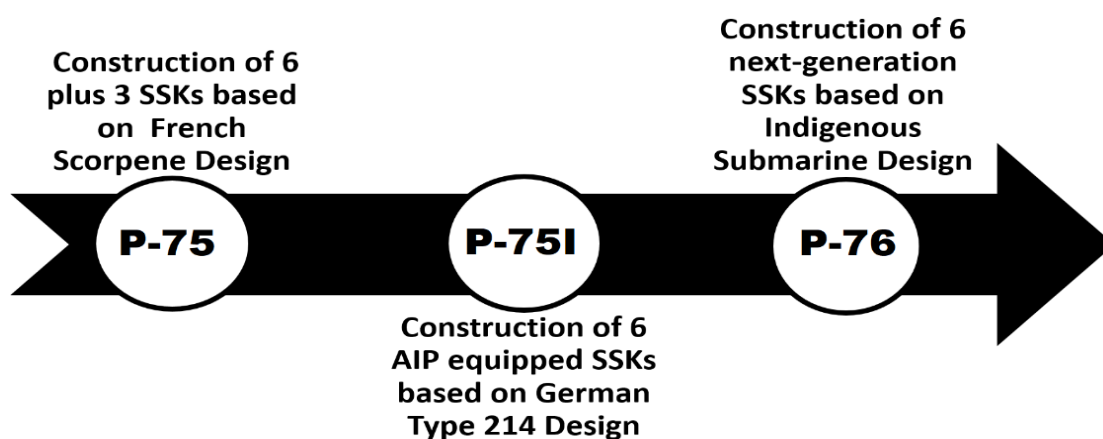
⁸ Warship Forecast, “[Project 677 \(Amur\)](#)”, Forecast International, June 2012.

technology that would enable the construction of a state-of-the-art SSK.⁹ Hence, fundamentally, the P-75I was repurposed to become a technologically advanced successor to the P-75 programme.

Finally in November 2007, the P-75I was formally set in motion in this new trajectory with the Defence Acquisition Council (DAC) approving the Acceptance of Necessity (AoN) for the indigenous construction of six submarines under this programme.¹⁰ In spite of this initiation, policy shifts and stringent technical requirements led to inordinate delays throughout the 2010s.¹¹ Further, on 31 May 2017, Strategic Partnership Model (SPM) was promulgated by the government for promoting self-reliance by encouraging private sector participation in defence manufacturing.

Four categories of military assets were identified to be procured under SPM. These military assets included fighter aircraft, helicopters, submarines and Armoured Fighting Vehicles (AFVs).¹² An RFP was issued by the MoD on 20 July 2021 to the two shortlisted strategic partners, which are MDL and Larsen & Toubro (L&T) for the construction of six AIP fitted SSKs under P-75I. The initialisation of the contract negotiations with MDL and TKMS finally sets stage for P-75I to take off after a delay of more than a decade. The next section places the P-75I in India’s roadmap for building indigenous submarines. Figure 2 illustrates India’s New Indigenous Submarine Roadmap.

Figure 2. India’s New Indigenous Submarine Roadmap



⁹ Joseph P. Chacko, “[What Ails P-75 I Submarine Selection?](#)”, no. 5.

¹⁰ “[Introduction of Submarines in Indian Navy](#)”, Ministry of Defence, Government of India, 11 December 2008.

¹¹ K.G. Ramkumar and Prakash Panneerselvam, “[India Navy’s Submarine Development Programme: A Critical Assessment](#)”, *Journal of Asian Security and International Affairs*, Vol. 10, No. 3.

¹² Abhay Kumar Singh and S. Samuel C. Rajiv, “[P75 \(1\) Submarines and Strategic Partnership Model](#)”, Issue Brief, Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), 28 March 2024.

P-75I: A Stepping Stone Towards the P-76

Today, India’s indigenous submarine roadmap has taken a trajectory where the P-75 and the P-75I programmes have become sequential LOEs as opposed to parallel LOEs envisaged in the 30-year plan.¹³ From a technological perspective, the P-75 programme simply involves the construction of the French Scorpene submarines in India. The Scorpene design was first unveiled in October 1990 and Chile made the maiden order to purchase it in 1998.¹⁴ Hence, the design and technology of the Scorpene submarine is more than three decades old.

On the other hand, with the P-76 programme, India endeavours to achieve a technological leapfrogging in the domain of submarine construction by building a next-generation SSK based on an indigenous design. India aims to construct these advanced SSKs with over 90 per cent indigenous content that will include its armaments, sonar suites, counter-measures and communications systems.¹⁵ Hence, the core purpose of the P-76 programme is to indigenously design and construct a class of submarines that is far superior to any of the existing SSKs among the world navies.

In this context, the P-75I is a critical programme that will serve as a bridge to address the technological gap between the P-75 and P-76. Apart from this, the procurement guidelines for the P-75I have been formulated to progressively induce greater indigenisation and technological advancements in India’s submarine building capability. As per the SPM, the first submarine to be constructed under the P-75I will have at least 45 per cent Indigenous Content (IC). Progressively, the IC will be increased to 60 per cent by the sixth and last submarine of the P-75 programme.¹⁶

On the other hand, the AIP technology which is to be a central feature of the P-75I programme will be developed specifically to meet India’s requirements. While functional AIP systems were developed as early as the late 1980s and early 1990s,¹⁷ India seeks a more advanced and powerful AIP system to propel the P-75I submarines whose displacement is expected to be more than 3000 tonnes.¹⁸ Here, it must be noted that German AIP systems that were demonstrated to India were

¹³ K.G. Ramkumar and Prakash Panneerselvam, [“India Navy’s Submarine Development Programme: A Critical Assessment”](#), no. 11.

¹⁴ [“The Market for Submarine”](#), Forecast International, February 2011.

¹⁵ Dinakar Peri, [“DRDO Indigenous Submarine Proposal to go for CCS Approval in Couple of Months; Eight Years for First Sub”](#), *The Hindu*, 22 February 2025.

¹⁶ Abhay Kumar Singh and S Samuel C Rajiv, [“P75 \(1\) Submarines and Strategic Partnership Model”](#), no. 12.

¹⁷ [“Air Independent Propulsion”](#), *Science Direct*, 2025.

¹⁸ Dinakar Peri, [“DRDO Indigenous Submarine Proposal to go for CCS Approval in Couple of Months; Eight Years for First Sub”](#), no. 15.

fitted in TKMS HDW Class 214 submarines, which has a displacement of only 2000 tonnes.¹⁹

Hence, through the P-75I programme, India and Germany will be developing a scaled up version of both the Class 214 and its AIP systems. This is the reason why the Indian Navy stringently demanded a sea-proven AIP system for this project. This will ensure that 80 per cent of the propulsion technology has already been tested and operationally proven, while the remaining 20 per cent of the issues that may arise during the development process can be addressed subsequently.

As far as the partnership with Germany for P-75I is concerned, it can be regarded as India’s indigenous submarine construction journey coming full circle. It must be noted that India’s agreement with Germany in July 1980 for the purchase of six Shishumar-Class (Type 1500) laid the foundation of India’s indigenous submarine construction journey. As per the agreement, India would make an off-the-shelf procurement of two submarines from Germany, while the balance four submarines would be indigenously constructed in MDL.²⁰ Accordingly India successfully completed the indigenous construction of the third and the fourth submarine. But the construction of the fifth and sixth submarine was put on hold due to some corruption allegations in June 1989.²¹

Regardless, the partnership was a major milestone as it provided India with the required exposure to the technical aspects of submarine construction. Today, with the P-75I, both nations are again collaborating at a greater strategic depth to not only construct submarines but also to facilitate full Transfer of Technology (ToT) of the hull design and AIP technology to India. This collaboration also opens up an array of commercial opportunities, as India endeavours to become a major shipbuilding nation and a Maintenance, Repair and Overhaul (MRO) hub. Through the P-75I programme, MDL can become a part of the German global supply chains. Overall, the P-75I can be regarded as a stepping stone for the P-76, as it will play a critical role in creating the technological and industrial ecosystem that will organically enable India in designing and constructing the next generation SSKs indigenously.

Conclusion

In the forthcoming years, India will be constructing SSKs through three different programmes that include the P-75 (three additional Scorpenes), P-75I and the P-

¹⁹ “[HDW Class 214 Submarine](#)”, Thyssenkrupp Marine Systems, 2025.

²⁰ “[Tenth Report Public Accounts Committee \(2009-10\)](#)”, no. 4.

²¹ Ibid.

76. Apart from this, India is also simultaneously engaged in the indigenous development and construction of nuclear-powered submarines. This includes the construction of four Ballistic Missile Submarines (SSBN) of which two have already been delivered. India will also be indigenously constructing two nuclear attack submarines (SSN) under the programme designated as Project-77 (P-77).

As the P-75I is now set to progress alongside these various programmes, it opens up possibilities for cross-pollination of technological capabilities and industrial resources to take place. In this context, the P-75I programme has acquired its own unique significance in spite of the long delays it has endured. Despite the state-owned MDL being awarded the contract for P-75I, the Indian private sector will also be actively involved in this programme. This will contribute to the development of the requisite domestic industrial ecosystem, which is essential for transforming India into a submarine-building nation. As a result, the P-75I programme can be regarded as an inflection point for strengthening India’s defence industrial ecosystem for achieving ‘atmanirbharta’ (self-reliance) in submarine technology. Hence, the P-75I should not be delayed further and must be executed swiftly to enable India to realise its vision of becoming a submarine-building nation.

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