

INS Mangrol

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Why in News?

State-run Cochin Shipyard Limited (CSL) delivered Mangrol, the third of eight Anti-Submarine Warfare Shallow Water Crafts (ASW-SWC) being built by CSL, to the Indian Navy.

- **Nomenclature** - Named after the coastal port town of Mangrol in Junagadh district, Gujarat.
- It carries forward the legacy of the erstwhile minesweeper INS Mangrol, which remained in service until 2004.
- **Primary Role** - Designed to detect, track, and engage enemy submarines operating in shallow, acoustically cluttered coastal waters, freeing frontline destroyers and frigates for blue-water operations.
- **Operational Range** - Up to 200 nautical miles from the coast
- **Displacement** - Displaces 900-1,100 tonnes; Length of 78 metres
- **Speed & Endurance** - Max speed of 25 knots; 2-week operational endurance
- **High Indigenization** - Features over 80% indigenous content, built with key components supplied by Indian entities like BEL, L&T Defence, Mahindra Defence Systems, NPOL, and MSMEs.
- **Propulsion** - Powered by diesel engines and waterjets with a shallow draught of 2.7 metres, allowing high maneuverability in confined waters while reducing underwater radiated noise.
- **Sensors** - Equipped with the DRDO-developed *Abhay* hull-mounted sonar and a towed low-frequency variable-depth sonar.
- **Weapons** - Features an RBU-6000 anti-submarine rocket launcher, triple torpedo tubes firing Advanced Lightweight Torpedoes, a 30 mm naval gun, and mine-laying rails.



About the ASW-SWC Programme

- **Objective-** Designed to replace the four Soviet-origin Abhay-class corvettes.
- **Shipbuilder Split** - A total of 16 vessels was approved,
 - 8 being constructed by Cochin Shipyard Limited (CSL) (*Mahe-class*) and
 - 8 by Garden Reach Shipbuilders and Engineers (GRSE) (*Arnala-class*).
- **Strategic Context** - Strengthens India's coastal defense capabilities amid increasing
 - Chinese underwater activity in the Indian Ocean Region (IOR) and
 - Pakistan's induction of Chinese-origin AIP-fitted *Hangor-class* submarines.

Reference

[The New Indian Express | Third shallow-water sub hunter to Navy](#)