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Challenges Faced in Indonesia's Naval Modernisation

By Alfin Febrian Basundoro

SYNOPSIS

Under the leadership of Defence Minister Prabowo Subianto, Indonesia has initiated a comprehensive naval modernisation programme. This programme involves procurements from various countries, including the United Kingdom, France, Italy, and Turkey. This programme presents challenges regarding training, ship maintenance, and ensuring technology transfers to support the local shipbuilding industry.

COMMENTARY

Since Prabowo Subianto became Minister of Defence in 2019, Indonesia has embarked on an ambitious path of military modernisation, with a particular focus on its naval capabilities. This is evident in the numerous agreements Indonesia has forged with foreign shipbuilding companies to acquire a [diverse array](#) of new vessels, including submarines, frigates, and offshore patrol vessels.

Several factors drive this latest modernisation effort. First and foremost is the obsolescence of Indonesia's ageing fleet. Second is the increasingly volatile security environment in the South China Sea, underscoring the urgent need for a robust deterrent force. Third is Indonesia's aim to secure [technology transfers](#) to bolster its shipbuilding industry.

A Maritime Nation Lacking in Naval Strength

As the world's largest archipelagic nation, Indonesia possesses a vast maritime domain, with 0.3 million sq km of territorial waters and an exclusive economic zone covering 2.8 million sq km. Despite this vast maritime domain, the Indonesian government's commitment to establishing a robust naval force has fluctuated. The

necessity of a robust naval force in this context is apparent, making Indonesia's naval modernisation efforts all the more crucial.

An effort to modernise Indonesia's navy took place under President Susilo Bambang Yudhoyono (SBY) when Defence Minister Purnomo Yusgiantoro introduced the [Minimum Essential Force](#) (MEF) concept in 2009 as a set of minimal requirements that the Indonesian navy was supposed to achieve in 2024.

In 2011, Indonesia signed a [contract](#) with South Korea's Daewoo Shipping and Marine Engineering (DSME) to acquire three new submarines, one of which was to be built domestically by PT PAL in Surabaya. Another agreement was [reached in 2012](#) with the Dutch Damen Naval Shipyard to procure the SIGMA (Martadinata)-class frigate, which remains Indonesia's most advanced combat ship.

However, after Joko Widodo (aka Jokowi) succeeded SBY in 2014, the modernisation efforts [slowed](#) as there was no reported procurement negotiation or deal during his term of office, which is ironic given Jokowi's Global Maritime Fulcrum vision.

Until recently, Indonesia's naval strength could only secure its territorial waters against small-scale threats such as illegal fishing. It has a minimal ocean-going deterrence capacity, with only seven frigates and seven corvettes. The Indonesian navy's [anti-air capabilities](#) remain limited, with fewer than ten ships equipped with significant anti-aircraft launching platforms.

The fleet is also ageing. According to the Stockholm International Peace Research Institute ([SIPRI](#)) and the *2023 Military Balance* published by the International Institute for Strategic Studies (IISS), approximately 40 per cent of Indonesia's ocean-going fleet is over 30 years old, especially its Ahmad Yani-class frigate and Fatahillah-class corvette.

Naval Modernisation Under Prabowo Subianto

Indonesia's naval modernisation efforts are back on track after Prabowo Subianto became defence minister during Jokowi's second term. In 2020, Prabowo [kicked off](#) the procurement of new frigates from the United Kingdom, with the contract signed in 2021 and construction [commencing](#) in 2022 at PT PAL in Surabaya, East Java, Indonesia.

Recently, Indonesia [acquired](#) two *Pattugliatore Polivalente d'Altura* offshore patrol vessels from Italy and launched two more domestically built ones. Indonesia is also reportedly negotiating with representatives from France and Turkey to expand its naval capabilities further.

So, why has Prabowo prioritised naval modernisation? What benefits and challenges does Indonesia gain from this effort? Prabowo's strong international vision is one factor, particularly in regional geopolitical dynamics. This can be seen, for example, in his speeches at the [2023](#) and [2024](#) IISS Shangri-La Dialogue, where he repeatedly emphasised the "regional tension in Indo-Pacific" as an immediate threat to Indonesia and expressed [commitment](#) to strengthening Indonesia's national defence.

Procuring ocean-going vessels with significant anti-ship and anti-aircraft weapons is crucial for bolstering the navy's deterrence capabilities against China's assertiveness in the South China Sea. Although Jakarta is not a claimant in the dispute over the waters, it is deeply [concerned](#) about China's assertiveness and its support for maritime militias, which [disrupt](#) Indonesia's maritime economy and challenge its sovereign rights over its exclusive economic zone.

Furthermore, securing technology transfers from various international partners allows Indonesia to mitigate the risk of future military embargoes, a challenge it faced in the [1970s](#) from the Soviet Union and in the [1990s](#) from the United States and several other Western countries. By diversifying its sources of advanced naval technology, Indonesia reduces its reliance on any single country.

For instance, procuring submarines from the French corporation Naval Group would enhance PT PAL's capacity to develop submarines and their subsystems, such as anti-ship missiles. At the same time, Indonesia is negotiating submarine procurements with Turkey. Similarly, agreements with the UK's Arrowhead consortium and Italy's Fincantieri provide Indonesia with broader options for frigate procurements and greater technological access.

Challenges Ahead

However, this modernisation effort is not without its challenges.

First, a fleet of ships from various countries poses operational challenges for navy personnel. The acquisition of naval assets from multiple countries presents a significant hurdle, as Indonesian personnel must adapt to various weapon systems, increasing maintenance and training complexity. According to the commanding officer of the Indonesian navy's 2nd Fleet, it takes three to six months for navy personnel to master each vessel's combat management and other subsystems fully.

Data from the [2023 Military Balance](#) show that nearly 60 per cent of Indonesian navy ships are locally built, 20 per cent are from the Netherlands, 10 per cent from South Korea, and 15 per cent are from the United Kingdom, Germany, and others. Recent procurements from France, Italy, and Turkey will increase the system's diversity, complicating training, maintenance, and operational efficiency.

Furthermore, the increasing diversity of Indonesia's naval assets will likely result in higher maintenance costs. The Indonesian navy has reportedly been allocated only [Rp 20 trillion](#) (US\$1.32 billion) for its 2025 budget out of the overall defence budget of Rp 155 trillion (US\$10.2 billion). With these limited funds, maintaining a diverse fleet could place significant pressure on [financial resources](#), potentially impacting maintenance and operational readiness.

Another possible challenge is the commitment of foreign corporations to technological transfers. Past experiences, such as the SIGMA-class frigate project in 2012, serve as cautionary tales, highlighting the potential risks and the need for careful planning and management of such agreements. Under the agreement with Damen Naval Shipyard, the navy was to acquire two ships from the shipbuilder, with plans for further domestic production. However, the shipyard [unilaterally terminated](#) the contract and

partnered with Vietnam to build a shipyard in Song Cam, Vietnam. This highlights the need to carefully evaluate each corporation's commitment to delivering tangible benefits to Indonesia's naval industry, particularly in technology transfers and capacity building.

Prospects for Indonesia's Naval Modernisation

The prospects for Indonesia's naval modernisation remain positive as Prabowo Subianto takes over as President, given his proactive foreign policy approach and strong commitment to defence modernisation. However, to mitigate the risks and address the challenges, the modernisation programme should be carefully managed, incorporating inputs from a broader range of stakeholders, including military analysts and academics, and ensuring greater accountability and transparency in the procurement process.

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