

Poland's military modernisation – still many challenges ahead

Poland's military procurements, resulting from the growing threat from Russia, are unprecedented in their scale. They provide not only opportunities – Poland can significantly boost its combat capabilities and thus its position within NATO – but also generate serious challenges which cannot be underestimated. Many questions remain unanswered.

There is no doubt that a development of the Polish Armed Forces is a top priority for the Polish government. The main challenge will be to secure long-term financing for such significant modernisation projects

Major assumptions for the development of the Polish Armed Forces were included in the classified document entitled "Development Program of the Armed Forces for 2021-2035" (*Program Rozwoju Sił Zbrojnych na lata 2021-2035*), which was adopted in the second half of 2019, as well as in its derivative "Technical Modernization Plan for 2021-2035" (PMT, *Plan Modernizacji Technicznej*). It is worth noting that in order to make the modernisation process more efficient, the Polish government has decided to extend the planning period from 10 to 15 years. A record sum of €110.3 billion has been allocated for the programmes.¹

In 2023, it is planned to spend 3% of GDP on defence (€20.5 billion – including €5.7 billion on technical modernisation – and additional funds for modernisation from the Support Fund for the Armed Forces,² whereas in 2022 it was "only" €12.2 billion). Level of spending is set to increase – according to Prime Minister Mateusz Morawiecki's announcement – to reach 4% this year.³ If this actually happens, it will be the highest percentage expenditure among all NATO member states.⁴ It will also be the largest expenditure on armaments in the history of Poland.

Quantitative growth of the armed forces is also expected to accompany technical modernisation. Minister of National Defense Mariusz Błaszczak announced a plan to increase a total strength to 300,000 personnel, including 250,000 professional soldiers and 50,000 soldiers of the Territorial Defense Forces (WOT, *Wojska Obrony Terytorialnej*). This level is to be achieved by 2035. The main assumptions of the Program for the Development of the Armed Forces for 2017-2026 (*Program Rozwoju Sił Zbrojnych na lata 2017-2026*) also include accelerating a formation of the 18th Mechanised Division, increasing a size of the 16th Mechanised Division and re-establishing an anti-tank regiment in Suwałki.

Major procurements

This analysis is too short to present all modernisation projects that demonstrate Poland's current scale of activities. It is enough to mention the most important programmes. For example, significant investments in the land forces can be observed. The shopping list includes the K2 tanks. All 180 K2s from the first batch are to be delivered for €3.16 billion by 2025. Additional tanks – up to 820 that are to be built locally from 2026 onwards. Apart from 116 used M1A1FEP ABRAMS tanks, Poland also ordered 250 new M1A2 SEPv3 ABRAMS tanks.

Regarding artillery, in August 2022, Poland ordered 212 K9 Self-Propelled Howitzers (SPHs) for €2.28 billion. A subject of the framework agreement signed with Hanwha Defense is an acquisition of a total of 672 K9A1 SPHs and a development of K9PL version. Moreover, in early September 2022, Huta Stalowa Wola was awarded a contract to deliver 48 new KRABs with support vehicles for €805 million.

Another priority is rocket launchers. In February 2023, Poland received a permission to order 18 HIMARS mobile artillery rocket launchers. At the same time, Warsaw announced a continuation of the HOMAR programme, which covers a purchase of rocket launchers capable of striking targets up to 300 kilometres away. Moreover, Poland will also receive the K239 CHUNMOO MRLs, which are intended to serve as a response to Russian BM-30 SMERCH MRLS and 9K720 ISKANDER SRBMs. A deal worth €4.36 billion was signed in early November 2022.

One of Poland's flagship projects is the BORSUK Armoured Infantry Fighting Vehicle (AIFV). This locally designed tracked vehicle is expected to replace obsolete ex-Soviet BWP/BMP-1 AIFVs (it is estimated that last year, before some donations made to Ukraine, Poland had roughly 1,200 BWP/BMP-1s). A framework agreement for a thousand BORSUKs is to be signed in the coming days. Ten mechanised battalions of the Polish Land Forces (*Wojska Lądowe*) are expected to receive at least 588 AIFVs by 2035.

After acquiring helicopters for the Special Forces (four S-70i BLACK HAWKS + an additional four ordered in 2021) and the Navy (four AW101s), Poland wants to implement the KRUK programme. Under this codename Poland will acquire modern attack helicopters for its ground forces. In September 2022, Poland signalled its willingness to procure up to 96 AH-64E APACHE GUARDIAN helicopters.

An important project is to boost Poland's air defence, which is now very poor and outdated (it is based on systems from the 1970s and 1980s) and to establish missile defence capabilities. Under the WISŁA codename Poland has already purchased two PATRIOT PDB-8 batteries with four AN/MPQ-65 radars (16 launchers in total) and Northrop Grumman's ICBS (batteries are to be based

on the US configuration of the Patriot/IBCS system). During the second phase, Poland is to receive six additional batteries and a new radar with 360-degree coverage, and will integrate its IBCS components with locally-manufactured radars.

Under the codename NAREW, Poland is to receive 23 short-range air/missile defence batteries with almost 400 launchers with missiles with a range between 25-50 km. Poland has also ordered the first two firing units in an interim configuration (with CAMM missiles), which is different from a final variant (which will be integrated with the CAMM-ER missiles). A contract is to be signed by the end of 2023).

In the case of the air force, the HARPIA programme is considered fundamental, but also extremely expensive and demanding. It involves acquiring 32 fifth-generation F-35 multirole aircraft. The Technical Modernisation Plan also includes a plan for a purchase of additional F-16 aircraft (at least one squadron). Moreover, Poland has ordered FA-50 jets from South Korea (three squadrons in total). There have also been media reports about Poland's interest in F-15EX aircraft.

In July 2022, a contract was signed for the construction of three MIECZNIK-class frigates. This decision, which is considered as the most important one in an attempt to rebuild the Polish Navy, is highly anticipated because currently Poland does not have any frigates with real combat value (in 2000 and 2002, the Polish Navy commissioned two ex-US Navy Oliver Hazard Perry-class missile frigates: ORP "Gen. K. Pułaski" and ORP "Gen. T. Kościuszko"). This does not, of course, solve the problems of the Navy, whose average ship age is 35 years.⁵ Poland still plans to buy new submarines (ORKA programme).

Main Challenges

However, it is impossible to ignore potential problems that may and most likely will, at least to some extent, threaten a harmonious implementation of these modernisation goals. Perhaps the most important and still unresolved problem is a financial aspect. As mentioned earlier, Poland plans to spend gargantuan sums on technical modernisation. On the one hand, modernising the armed forces is a necessity, but on the other hand, Poland faces a classic "guns and butter dilemma." Every country, including Poland, has limited financial resources, while other crucial sectors – including internal security, public infrastructure, healthcare, and education – also need investments.

For instance, just the second phase of the WISŁA programme is estimated to cost roughly €8.4 billion, and this does not include costs of LCIs (Low Cost Interceptors), which will only be subject to deliveries in the next stage.⁶ The acquisition of multi-role F-35 aircraft is to cost €4.3 billion,⁷ while only one batch of tanks – 116 used M1A1s – is to cost a maximum of €3.5 billion.⁸ 18 HIMARS launchers with ammunition will cost €9.4 billion.⁹ In this context it should not be forgotten that a

cost of procurement is just one element constituting total financial burden. A user must also cover costs of implementation – this includes new infrastructure and trainings of personnel – as well as so-called life cycle costs. A purchase of ammunition is often necessary.

Although expenses are planned for years, they will constitute a significant burden for a country that is still relatively poor, struggling with weakness in many vital sectors (healthcare, education, etc.). Additionally, Poland is currently facing its economic challenges, which are unlikely to be quickly overcome. Military spending assumes an increase in GDP, which is never guaranteed. In January of this year, the International Monetary Fund (IMF) lowered its GDP growth forecasts for Poland: for 2023 (from 0.5% to 0.3%) and 2024 (from 3.1% to 2.4%).¹⁰ According to the European Commission, growth in 2023 is expected to be 0.4%, which is even lower than the average in the European Union (0.8%). In 2024, Poland is expected to grow by 2.5%.¹¹ Moreover, inflation remains a significant problem, reaching 17.2% in January 2023.¹² There are also many doubts about the second (in addition to the funds from the Ministry of National Defense), source of funding, that is, the Armed Forces Support Fund (FWSZ), which is supposed to collect funds, for example, from the issuance of bonds. In 2023, expenses totalling €10.4.billion are planned from this source.¹³

Secondly, an issue raised by many experts that has a negative impact on the Polish defence industry is the lack of offsets in many projects. There is no doubt that obtaining foreign technologies can enable a development of indigenous know-how and skills with time. Here, the example of South Korea is worth comparing, which is currently a significant arms exporter but previously it used acquired technologies to create domestic technical solutions. This applies, for example, to the South Korean aviation industry, which was created from scratch.

Products are often bought "off the shelf," with a minimal or non-existent use of Polish technical solutions. In this context, one of the risks posed to the KRAB self-propelled howitzer programme is highlighted – while the majority of the Polish Army's KRABs have "been transferred to Ukraine as a military aid package",¹⁴ Poland has expressed readiness to order 672 South Korean K9A1/K9PL howitzers.¹⁵ Although such emergency purchases, which guarantee rapid replenishment of supplies, are logical and understandable, a large size of a planned order in South Korea raises concerns about an ultimate fate of the KRAB programme – both the current version and plans to create more advanced variants. According to Agricole's analysis, only 1/4 of all planned expenditures on armaments will be allocated to Poland.¹⁶

At the same time, a decision of Prime Minister Mateusz Morawiecki's government to provide HSW with a subsidy of €21 million should be considered as a positive move, as it will boost production capacity for vehicles such as KRAB, BORSUK, and RAK (BORSUK production is to increase to 100 vehicles annually). In this context it is worth adding that while the Polish defence industry now faces

great challenges, it has not been thoroughly modernised. However, this is necessary, as emphasised by experts.¹⁷

Moreover, a fundamental challenge is a shortage of personnel. In December 2022, the Polish Armed Forces had 164,000 soldiers (including in the Territorial Defense Forces).¹⁸ As mentioned earlier, they are supposed to grow to 300,000 soldiers by 2035. Apart from additional financial burden of such undertaking, the main problem is a shortage of volunteers (recruitment problems are a challenge for almost all NATO member states, including the United States). This project will ultimately face limitations as a result of demographics, which "in Poland have been one of the worst in our part of the world for years".¹⁹ In other words, in the near future there will be fewer young people (and therefore potential soldiers), while a number of people of post-productive age – requiring increased financial expenditures for social and health care – will increase.

There will be more fundamental problems and challenges. Due to the fact that any modern military equipment is a sophisticated and advanced system, its full implementation into service and its effective utilisation is not an easy process. While Poland has shown that it can efficiently implement modern systems and make effective technological leaps, as evidenced by the F-16 aircraft project, it may prove difficult with such massive purchases in so many fields (tanks, artillery, aircraft, etc.). Moreover, the number of specialists who can support these processes is also limited.

Conclusions

1. There is no doubt that a development of the Polish Armed Forces is a top priority for the Polish government. All long-term documents, such as the "Development Program of the Armed Forces for 2021-2035," include major assumptions for the modernisation and growth of the armed forces. With an ultimate goal of reaching 4% of GDP spent on defence, Poland's spending would be the highest among all NATO member states (in terms of % of GDP).
2. The main challenge will be to secure long-term financing for such significant modernisation projects. This will be a great burden on the state budget, which also has and will have other key expenses (infrastructure, science, healthcare, social care, pensions, etc.). It is very plausible that those ambitious plans will need to be verified at some point and limited over time, even for this reason alone. It seems highly likely that such a large scale of planned orders is largely driven by a political populism, aimed at gaining popularity here and now, rather than to be a real, comprehensive, and well-thought-out plan for harmoniously strengthening the armed forces.
3. Poland should ensure that these procurement programmes are sustainable and affordable in the long term. The country should avoid a risk of overspending, which now seems very high. Additionally, the government should maintain a balance between defence spending and other spending to ensure

the country's long-term economic and social stability. To this end, such investments should be a cross-party consensus.

4. Decision-makers must also be aware of other significant limitations, primarily demographics. Polish demographic forecasts are very poor. So far, no government programme has been developed that could counteract negative trends or at least reduce their painful consequences for future armed forces, which will struggle with shortages of suitable candidates. Therefore, the plan to increase the armed forces to 300,000 soldiers must be considered unrealistic.

5. To make the most of the procurement programmes, Poland must invest in developing a skilled workforce that can handle new hardware and technologies. Poland should establish training programmes and centres to educate its military personnel and provide them with the necessary skills to operate and maintain new systems. At the same time, Poland should encourage the development of local defence industries to promote technological innovation, boost the economy, and reduce reliance on foreign suppliers.

6. Procurement of military equipment, which is understandable and necessary in a current geopolitical situation, cannot come at the expense of the Polish defence industry (KRAB howitzers and their future at risk is the best illustration) It is true that in many sectors, it is rigid, inefficient, or incompetent. Successive governments since 1989 and many heads of those companies can fairly be blamed for these problems. However, the fact remains that procurement of military equipment often allows for a transfer of modern technologies that should bolster the domestic defence industry. This is a golden opportunity for Poland's indigenous defence industry and as a result also for its military.

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