

---

# Empowerment of the National Defence Industry in Fulfilling the Indonesian National Armed Force (TNI) Defence Equipment

Siti Khairina Rahayu

*(Defence Management Department, Indonesian Defense University, Indonesia)*

**ABSTRACT:** The development of globalization has an impact on the defence industry sector. The defence industry as a national industry has a major contribution to national defense to overcome various kinds of threats. The national defence industry has an important role in producing and meeting the defence equipment needs for the TNI. The purpose of this study includes how to empower the national defence industry in fulfilling the TNI's defence equipment. The research method used is descriptive qualitative research with a library research approach. The results of this study are that the empowerment of the national defence industry is still not optimal, even though the Defence Industry Policy Committee (KKIP) has been established and there are regulations regarding the defence industry. The right solution in empowering the defence industry is that a new policy is needed with the government's commitment and consistency to realize the independence of the defence industry. In addition, the government's encouragement to use domestic products is needed to reduce dependence on other countries.

**KEYWORDS** - *Defence industry, Defence equipment, Indonesia, TNI*

---

## I. INTRODUCTION

Globalization gives birth to changes in every order of world life, this will certainly cause positive and negative influences that come simultaneously, both directly and indirectly, will affect the defense system of a country. National defense is the most important part of a country because it relates to the interests of protecting its territory, government system and citizens from threats from other countries. The dynamic world changes affect the global, regional and national strategic environment. The development of the strategic environment often occurs consistently, can cause various kinds of complex threats, of course this is unavoidable and has an impact on every country, including Indonesia. One of the potential threats that arise as a result of this change is military threats both from within and from abroad in the form of aggression from other countries with nuclear war, violations of border areas by other countries, acts of international terrorism, espionage, sabotage, attacks of separatism, armed insurrection, acts of armed terror. (Ditanlingstra and Ditjen Strahan, 2008)

Indonesia, which is rich in various ethnic groups, religions, languages and customs, will be very vulnerable to threats and friction. Threats to the sovereignty of the nation still often occur today, such as separatist movements or armed criminal groups (KKB) in Papua. A separatist movement is a movement or group with an understanding that has the intent or purpose to separate themselves from a group or state. The Papuan KKB is motivated by the issue of social welfare for the Papuan people. The Papuan KKB is a separatist group that often terrorizes the TNI, Indonesian Police and Papuan civil society. (Abadi, 2021)

These threats can disrupt the integrity of the Unitary State of the Republic of Indonesia. As a nation with a vast and sovereign territorial area, to be able to maintain its sovereignty and territorial integrity, it must have a strong and formidable national defense so as to make Indonesia a nation that is feared and respected in the region. A strong national defense must of course be supported by all elements of the nation, especially the TNI component and the defence industry. The main task of the TNI is to maintain territorial integrity and

protect the sovereignty of the nation, so in carrying out its duties the TNI must be supported and equipped with an ideal and appropriate defense system.

In this modern era, the national defence industry is the most important element that supports and develops national defense capabilities. A country with a modern defence industry will be better at defending its country from various threats. The strength of the national defense is supported by the ability of a country to produce defense facilities and infrastructure through its defence industry (Purwanto, 2020).

According to the Director General of Defense Strategy at the Ministry of Defense of the Republic of Indonesia, Major General of the Indonesian Armed Forces, Rodon Pedrasan, 50 percent of the defence equipment owned by Indonesia is old or obsolete, is also damaged and is a cause for concern. In fact, according to him, the defence equipment should not be old or damaged (Tempo, 2021). This is due to the difficulty of Indonesia in supplying and maintaining defence equipment. For example, the maintenance and restoration of the defence equipment system sometimes clashes with the existing spare parts inventory due to the impact of the embargo and funding opportunities due to the crisis, so it cannot be carried out in accordance with the defence equipment repair plan. However, this incident should be a lesson for the Indonesian government that dependence on other countries in the procurement of defence equipment and its supporters can lead to incapacity, especially in the event of an embargo. Therefore, the government must immediately empower the domestic defence industry to meet its military needs.

The Indonesian government supports the independence of the defence industry through Law Number 16 of 2012 concerning the defence industry (Law Number 16 of 2012). In line with that, the government then formed the Defence Industry Policy Committee (KKIP) to foster the national defence industry into an independent industry and prioritize the use of domestic production. The largest defense industries owned by Indonesia include PT Pindad (Persero), PT PAL Indonesia (Persero) and PT Dirgantara Indonesia (Persero) (Purwanto, 2020).

Building an independent defence industry is not easy, it requires a large strategy and resources. In addition, it not only requires a large budget, but also requires the ability to master technology. This cannot be done in a short time and requires the cooperation of many stakeholders. The Ministry of Defense of the Republic of Indonesia is in charge of the national defense system, which requires cooperation with several stakeholders in creating an independent defence industry development. A strong national defence industry will support national defense, therefore cooperation is needed from the three pillars of the defence industry such as the Research and Development Institute including universities, the Defence Industry and the Indonesian Ministry of Defense including the TNI, to clarify and reinforce national regulations regarding the use of the best products produced. by son of the nation (Ministry of Defense RI, 2015).

As a form of support from the government in the development of the defence industry and modernization of defence equipment, the transfer of technology is carried out through cooperation between several developed countries in the defense sector. In practice, related to the required defence equipment that has not been able to be produced and fulfilled from the domestic industry, the procurement of defence equipment can be fulfilled from the multinational industry through joint production or technology transfer schemes. Therefore, users also get maximum benefits, including maintenance, or sharing knowledge that is believed to be able to increase knowledge for defence industry actors who are motivated and ambitious to adapt to the advancement of defense technology in today's world.

## II. RESEARCH METHODS

The design used by the author in the preparation of this research is library research. According to Mardialis, literature review or library research is the collection of information and data through various materials in the library, in the form of documents, books, magazines, historical records and stories, internet sources and other references relevant to the problems in this research (Mardialis, 1999). Read the problems from these sources, cite and look for important materials, then conclude and arrange them into a written work. The method used by the author is descriptive qualitative, namely the presentation of data in the form of a description of words where the author tries to describe the problems that exist from the results of the study. The purpose of this paper is to analyze the description of the empowerment of the defence industry in meeting the needs of

defence equipment for the TNI. With literature research, several experts will get explanations (through writing) about the definition of optimizing the empowerment of the defence industry. From this analysis, it will be clear that the defence industry empowerment has been carried out and the efforts to optimize the empowerment.

### III. RESULTS AND DISCUSSION

#### 4.1. Defence industry Empowerment

Law Number 16 of 2012 concerning the defence industry explains the defence industry as a national industry which includes domestic companies or industries that are individually or in groups and authorized by the government in producing defense and security equipment, and maintenance services in meeting strategic interests in the defense and security sector. security for the entire territory of the Republic of Indonesia (Law Number 16 of 2012).

The development of the defence industry as an answer to countering the threats that are present clearly has an impact on changing the flow of war. In warfare, it clearly includes weapons technology, where every country tries to make and have superior weapons to win the war, of course this involves the defence industry. In addition, war also involves reliable human resources, the tools used, and the resources owned by both reserve and support resources together to become part of the nation's components that are ready to fight at any time.

The condition of the Indonesian Air Force's defence equipment as an air force has several problems, one of which is that the radar and fighter aircraft owned by the Indonesian Air Force are still few in number, not to mention the condition of the radar and aircraft owned by most of them have entered old age. Likewise with the condition of the defence equipment owned by the Indonesian Navy and the Indonesian Army, which on average are included in the old procurement (Rachmat, 2014). There were several accidents in the defence equipment owned by the three TNI dimensions which were used while on duty or in unmitigated training which resulted in not a few fatalities including the MI-17 helicopter belonging to the Indonesian Army which crashed in the Oksibil-Papua area in 2019, the crash of the Hercules C-130 Aircraft belonging to the Indonesian Air Force in Timika-Papua in 2017, and KRI Nanggala-402 belonging to the Indonesian Navy which sank while on duty in the Bali Sea in 2021 (Harjanto, 2021). Some accidents that occur are the result of damage to machines or tools and bekan is human error. It is clear that the defence equipment owned by the TNI is outdated and needs to be rejuvenated or modernized, with the hope that the national defense system will become stronger and more resilient and accidents will no longer occur due to equipment or machine damage.

The government's decision to strengthen the strategic industry, in this case the empowerment of the defence industry to support the independence of domestically produced defence equipment, is the right one. The existence and need for the defence industry is strongly influenced by the development of the strategic environment to support the main tasks of the TNI. The growth of the national defence industry will be strong if it is fully supported by the government through its defense policies. This defense policy should include full technology, technical and budget support from the government for the national defence industry so that the defence industry can meet the TNI's minimum strength standards in the future (Djarwono, 2017).

Empowerment of the national defence industry which is a response to the Minimum Essential Force (MEF) in the rejuvenation of the TNI's defence equipment which has been planned since the reign of President Susilo Bambang Yudhoyono in 2007. Where the MEF aims to modernize through the development of the TNI's defence equipment as well as empower the defense industries to achieve an independent industry, and not dependent on other countries. In this empowerment, a process that is not short and continuous is needed (Fitri and Sanur, 2019). In order for this activity to run as expected and achieve maximum results, government support is needed, especially related to policies and budgets, because until now there are still obstacles in the form of a lack of available budget to conduct research and development related to technology, in addition to the lack of transparency regarding the procurement of defence equipment.

The political will carried out by the government must be right if it wants to develop an independent defence industry through the attitude of professionalism and high integrity of the defence industry. Therefore, policy support and consistency are needed in the use of products from within the country, carrying out the process of rejuvenating the defence equipment system with research and technology development activities, and finally strengthening the openness and trust in the defence equipment procurement activities.

Through Law No. 16 of 2012 proves the government's seriousness in empowering the defence industry, this clearly brings benefits to the domestic defense industries, especially in meeting the demand for defence equipment procurement for the Ministry of Defense, Police, and Ministries or Institutions that utilize the use of defence equipment. in carrying out their duties. It is stated in article 43 (1) where users are required to use domestic products. However, if it cannot be fulfilled and cannot be produced domestically, then imports can be carried out on condition that technology transfer is required. Of course this will include the national defence industry, technology transfer, and the international defence industry which is carried out by joint production over a long period of time. So the expected benefit for Indonesia is the growth of the national defence industry so that it can reduce dependence on other countries.

In creating the independence of the national defense system, the defence industry has an important role in addition to meeting the needs of the TNI's defence equipment, the defence industry also has a role in increasing Indonesia's economic growth, including creating jobs. In developing the defence industry, a strategic defence industry strength is needed in State Owned Enterprises (BUMN) through increasing financial and operational capabilities, such as human resource development and investment. The government's encouragement to strengthen the existence of the national defence industry, both State Owned Enterprises (BUMN) and Privately Owned Company (BUMS), requires synergy to create an independent defence industry. It takes objective thinking from the TNI, Indonesian Police and other Ministries or Institutions as users to get involved and contribute to the defence industry in fulfilling the defence equipment needs to support their work. Now the defence industry is always trying to make products that meet the specifications for the needs of the TNI, Indonesian Police and other Ministries or Institutions that use defence equipment. Of course this is a serious effort from the defence industry in luring users to use the products of the national defence industry. Empowerment of an independent national defence industry will be realized if the three pillars synergize with each other, namely the defence industry, government and users (Warsito, 2020).

Strengthening the Indonesian defense system by rejuvenating the defence equipment system is not only an alternative, but is a must that must be done by the government. The task of the TNI in the future is not only to maintain state sovereignty, but is required to be able to carry out humanitarian tasks and world peace tasks both in the global and regional scope. Therefore, meeting the needs of modernizing the TNI's defence equipment system through advanced technology requires a large budget. In addition, the government's encouragement is needed in empowering the national defence industry in meeting the needs of defence equipment in order to achieve the ideal TNI defense posture.

#### **4.2. National Defence industry Development**

Currently, Indonesia has 116 defense industries which were officially designated by the Minister of Defense in support of the TNI's defence equipment (Anwar, 2020). The national defence industry has considerable potential and opportunity in developing its capabilities if it can overcome and minimize obstacles that occur and will occur in the empowerment of this industry, such as new policies on transformation and stimulus from the government for the national defence industry, for example in the form of capital loans, research collaborations. and development including human resources, technology and production, tax breaks including raw materials and spare parts for defence equipment.

The obstacles in empowering the defence industry to support the independence of the TNI's defence equipment are perceptions that are still different between interests in terms of strengthening the national defense system, too many regulations and not yet on target for the development of the defence industry, including the rejuvenation of production equipment in the defence industry, lack of commitment and political will. from the government in the use of domestic production, besides that existing technology often depends on the country of origin (Putra, Kustana and Poespitohadi, 2018). Therefore, guidance is needed for the defence industry in order to realize the empowerment of an independent national defence industry.

The Defence Industry Policy Committee (KKIP) was formed based on the Presidential Regulation of the Republic of Indonesia (Perpres RI) Number 42 of 2010. KKIP has the task of drafting national strategic regulations in the national defence industry, coordinating the implementation and supervision of national strategic regulations for the defence industry, coordinating foreign cooperation as an effort to enlarge and

develop the defence industry as well as to control, evaluate and follow up on the operation of the defence industry (Susdarwono, Setiawan, and Husna, 2020). There has been consistency and commitment to the defence industry which is a national industry, but in practice it still cannot be implemented optimally. Although the regulations regarding KKIP have been established, they are still unable to optimally respond to the needs of defence equipment and create an independent defence industry. Initially, the empowerment of the national defence industry was intended to become a national industry that could maximally support the fulfillment of defence equipment for the TNI. Privatization is carried out to make the defence industry an industry that is also looking for profit, but it still cannot go according to what has been planned. The solution to create an independent defence industry is to make new agreements and run consistently. However, this is not just a hope and an idea, it must be supported and defined conceptually through a national strategic program. The defence industry is a national industry, so it is necessary to develop the defence industry so that it becomes an independent and integrated industry in national industrial activities and can build the nation (Widjajanto, 2011)

#### **4.3. Defense Cooperation and Technology Transfer**

Indonesia in developing the national defence industry requires cooperation in the defense sector, especially cooperation carried out with developed countries, such as joint development in joint operations, which in this activity are carried out by the government and international companies by developing production such as weapons systems, which also includes joint costs, control and evaluation as well as profit sharing on sales. In technology transfer there are parts that need to be known such as software, hardware, brainware and supporting networks. Software is related to efforts to complete activities or orders in its operation and its form is not tangible. Hardware is related to tools that are tangible and structured in their layout. Brainware in the form of knowledge related to deep reasoning of applications and uses of software and hardware. Meanwhile, the support network is a network that is needed for the effective implementation of this technology (Rachmat, 2014).

The development of the times gives the effect of affiliation between countries in all sectors including the defense sector. Developing countries have the opportunity to cooperate and obtain technology transfer from developed countries in carrying out efficient production and at the same time good relations with the country. Technology transfer has the aim of complementing the shortcomings of the technological development carried out. For Indonesia, the technology transfer method is a solution and opportunity for the development of the defence industry because the existing defence equipment system is outdated and alarming, and can create the independence of the national defense system.

The government's efforts in developing cooperation in the defense sector with other countries always try to include a clause on technology transfer in the cooperation agreement for the development of defence equipment. Technology transfer has a requirement, namely that the national defence industry can implement and produce defence equipment in accordance with established provisions. It seems that this will not be a big obstacle because now several national defense industries are showing prospective progress.

## **IV. CONCLUSION**

The negative impact of the development of globalization brings a real threat to the national defense system. Each country tries to strengthen its national defense through its military technology. The TNI in carrying out its duties to maintain and secure the integrity and sovereignty of the nation and state requires modern defence equipment. The defence industry has an important role in producing defence equipment for the TNI. The problem that has arisen so far is that the defence industry is still unable to meet the needs of defence equipment for the TNI, so the government is still importing weapons from abroad. This is certainly an opportunity and a challenge for the Indonesian state in developing its national defense system.

Empowerment of the defence industry is the right solution and must be done for the development of the national defence industry. Government support, commitment and consistency are needed for the empowerment of the defence industry in order to realize the independence of the state defense system and the defence industry. In mastering advanced military technology and increasing the number of production and quality of defence equipment, this can be done by optimizing the defence industry and transferring technology. Technology

transfer can be realized through cooperation in the defense sector involving the government and developed countries that have the latest military technology. The advancement of military technology in a global scope is a motivation for Indonesia to care about the independence of the existing defence industry to be able to produce defence equipment domestically and not depend on other countries.

## REFERENCES

### Books:

- [1] Ministry of Defense RI, *Indonesian Defense White Paper Of 2015* (Jakarta: Ministry of Defense RI, 2015).
- [2] Mardialis, *Research Methods A Proposal Approach*, (Jakarta: Bumi Aksara, 1999).

### Journal Papers:

- [3] A. N. Rachmat, "Challenges and Opportunities for Global Defense Technology Development for Indonesia's Defense Force Development", *Jurnal Transformasi Global*, Vol 1, No 2, pp. 199-212, 2014.
- [4] A. Fitri and D. Sanur, "Empowerment of the National Defence industry in Fulfilling the Minimum Essential Force (MEF)", *Info Singkat*, Vol.XI, No.22/II/Puslit/November/2019, pp. 25-30, 2019.
- [5] A. G. P. Putra, T. Kustana, W. Poespitoahadi, "Empowerment of PT Dirgantara Indonesia as a Strategic Defence industry in Fulfilling the Indonesian Air Force's Defence equipment", *Jurnal Strategi Pertahanan*, Volume 4, Nomor 3, pp. 41-62, 2018.
- [6] L. F. Djarwono, "Indonesia's Defence industry Development: Towards Fulfillment of MEF Targets Or Just Towards Arm Candy?", *Jurnal Defendonesia*, Vol 2 No 2, pp. 25-34, 2017.
- [7] E. T. Susdarwono, A. Setiawan, Y. N. Husna, "State Policy Regarding the Development of Revitalization of the Indonesian Defence industry from Time to Time", *Jurnal USM Law Review*, Vol 3 No 1, pp. 155-181, 2020.

### Regulations:

- [8] Law Number 16 of 2012. *Defence Industry*
- [9] Presidential Regulation of the Republic of Indonesia Number 42 of 2010. *Defence Industry Policy Committee*

### Working Papers:

- [10] D. Widjajanto, *Optimizing the Defence industry for the Independence of the TNI Alutsista in the Context of National Defense*. Kertas Karya Perorangan (Taskap), Program Pendidikan Reeguler Angkatan (PPRA) XLVI, Lembaga Ketahanan Nasional RI, 2011.

### Websites:

- [11] Ditanlingstra and Ditjen Strahan, *Strategic Environment Development and Threat Prediction in 2008*, Ditanlingstra and Ditjen Strahan Indonesian Ministry of Defense, pp. 1-11, 2018. [Online]. Available: <https://www.kemhan.go.id/strahan/wp-content/uploads/migrasi/Produk/perkembangan-lingkungan-strategis.pdf>. [Accessed: August 25, 2021].
- [12] H. Abadi, *Separatism is a Movement for Separation, Recognize Causes and Examples*, Hot.liputan6.com, 2021. [Online]. Available: <https://hot.liputan6.com/read/4462088/separatisme-adalah-gerakan-untuk-memisahkan-diri-kenali-penyebab-dan-contohnya>. [Accessed: August 25, 2021].
- [13] A. Purwanto, *Defence industry: Development History, and Challenges*, Kompaspedia.kompas.id, 2020. [Online]. Available: <https://kompaspedia.kompas.id/baca/paparan-topik/industri-pertahanan-sejarah-perkembangan-dan-tantangan>. [Accessed: August 27, 2021].
- [14] Tempo, *The Urgency of Modernization of Defense Alutsista*, Koran.tempo.co, 2021. [Online]. Available: <https://koran.tempo.co/read/info-tempo/465654/urgensi-modernisasi-alutsista-pertahanan>. [Accessed: August 29, 2021].
- [15] S. A. Harjanto, *16 main Defence equipment Accidents Occurred In Jokowi Era, Here's the List*, Kabar24.bisnis.com, 2021. [Online]. Available: <https://kabar24.bisnis.com/read/20210426/15/1386455/16-kecelakaan-alutsista-terjadi-di-era-jokowi-ini-daftarnya>. [Accessed: September 3, 2021].
- [16] H. Warsito, *Defence industry Empowerment Towards Self-reliance of Defense and Security Equipment Tools*, Timeindonesia.co.id, 2020. [Online]. Available: <https://www.timesindonesia.co.id/read/news/295557/pemberdayaan-industri-pertahanan-menuju-kemandirian-alpalhankam>. [Accessed: September 4, 2021].
- [17] M. C. Anwar, *The Private Weapons Industry is Battered by the Covid-19 Pandemic*, Cnbcindonesia.com, 2020. [Online]. Available: <https://www.cnbcdonesia.com/news/20201002153342-4-191297/industri-senjata-swasta-babak-belur-gegarapandemi-covid-19>. [Accessed: September 4, 2021].