

# Implementation of the Modernization Policy of the Main Equipment of the National Maritime Defense Weapon System (Study on Minimum Essential Force Phase II 2015-2019)

Gracia Sarah Armadani<sup>1</sup>, Meidi Kosandi<sup>2</sup>

Faculty of Social and Political Sciences, Universitas Indonesia, Indonesia<sup>1,2</sup>

Email: gracia.sarah@ui.ac.id<sup>1</sup>, meidi.kosandi@ui.ac.id<sup>2</sup>

## Keywords

*Perceived Organizational Support, Employee Engagement, Employee Performance, Singapore Government Agencies, Thailand Government Agencies, Indonesian Government Agencies.*

## ABSTRACT

This study explores the implementation of the Navy's main weapon system modernization policy in the context of meeting the Minimum Essential Forces (MEF) Phase II for the 2015-2019 period, whose main focus is to overcome threats to national security. The purpose of the study is to explain the implementation process of the Navy's defense equipment modernization policy related to MEF and analyze policy factors that affect the results of its implementation. Using defense policy data and theory, the study identified obstacles such as budget constraints, differences in understanding between policy actors, less optimal supervision, and the role of the defense industry that has not been maximized. Document evaluation, interviews, and monitoring by defense experts show that the main constraint is not just related to limited resources, but rather to the imbalance of political will of policy actors. Consistency of implementation, commitment to transparency, accountability, and improvement of resource capabilities through priority scale and empowerment of the defense industry require the support of political will. The contribution of this research includes the development of political science, particularly in the context of defense and security politics. The results can be a reference for future researchers who are interested in understanding the issue of defense equipment modernization. The successful implementation of this policy is expected to have a significant impact on national defense and national security policies, with the support of political will identified as the main key to minimizing conflicts of interest and increasing the effectiveness of MEF implementation, maintaining national security.

## INTRODUCTION

The implementation of national defense aims to defend national interests from all forms of threats. National interests are generally classified into categories according to their level of urgency. This is done to ensure the formulation of defense policies in accordance with the threats faced to the national interests to be defended. According to Hartman, the national interest is divided into two stages: vital national and secondary national interests. Vital national interests are basic things that must be fulfilled because they concern the existence of a state, such as independence, integrity, and security of citizens. Secondary national

interest is an extension of the compromised vital national interest, meaning that it will not threaten the state's existence state if they are not fulfilled (Yudhistyra & Nugroho, 2014).

In Law Number 3 of 2022 concerning State Defense, it is stated that state defense is all efforts to defend state sovereignty, the territorial integrity of the Unitary State of the Republic of Indonesia, and the safety of the entire nation from threats and disturbances to the integrity of the nation and state (Chen et al., 2023; Dirhamsyah et al., 2022). Regarding the Indonesian Defense White Paper, the three things mandated by the country's defense law are absolute national interests (Supriyatno, 2014). In line with the classification of national interests, the Indonesian Defense White Paper divides them into three categories: absolute national interests, vital national interests, and important national interests (Ministry of Defense, 2015). The national interest category is the interest in national security, which concerns state sovereignty, territorial integrity, and the safety of the entire nation from all forms of threats (Nindya & Abiyya, 2022).

To defend the country, one of the problems that arises is the existence of threats that are not balanced with the condition of defense posture and budget (Rifai et al., 2022). Defense posture manifests the appearance of strength, capability, and deployment of national resources laid out in the country's defense system. Defense posture is military personnel, defense equipment, and supporting facilities and infrastructure (Bueger & Liebetrau, 2023; Gülcan & Erginer, 2023; Moreira et al., 2023). Realizing this goal requires the country's commitment to build a minimum defense posture, assuming it can overcome actual threats. One form of the government's commitment to building defense posture strength is to formulate a national defense posture development policy, which will be implemented as a Minimum Essential Force (MEF) from 2010 to 2024.

MEF is a basic and minimum force standard of the TNI, which is absolutely prepared as the main and fundamental prerequisite for effectively implementing the main tasks and functions of the TNI in dealing with actual threats (Afenyo & Caesar, 2023; Han et al., 2023; Tuncer & Cirpan, 2023). If briefly understood, MEF is a gradual process to meet the minimum standards of the country's defense system that focuses on the completeness of defense equipment, such as efforts to modernize the Main Equipment of the Weapon System (defense equipment). The first priority for the realization of MEF is to increase the mobility capabilities of the Indonesian Air Force (TNI AU), Navy (TNI AL), and TNI Army (TNI AD) to support the implementation of the main tasks of the TNI throughout the national territory (Sarjito et al., 2019; Widodo, 2019).

MEF Phase I was prepared in the 2010-2014 strategic plan, MEF Phase II in the 2015-2019 strategic plan, and MEF Phase III in the 2020-2024 strategic plan. MEF covers several aspects, including defense equipment modernization, maintenance, organizational and infrastructure, professionalism, welfare, and the defense industry. The term MEF itself is used given the security conditions that are vulnerable to threats while the defense budget is limited. With these conditions, the defense posture policy leads to the fulfillment of minimal strength with three main aspects, namely the modernization of defense equipment, maintenance and maintenance (*harwat*) and infrastructure (*sarpras*) as a priority (Alqahtani et al., 2023; Hartono, 2021; Jianxing et al., 2022; Lee & Park, 2020).

Minister of Defense Regulation Number 2 of 2010 concerning the Minimum Essential Force (MEF) Main Component of the Indonesian Army states that the policy is not directed at the concept of an arms race and development strategy to win total war but as a form of basic force that meets certain standards and has a deterrence effect (Hartono, 2021). As a priority agenda in MEF, defense equipment modernization refers to the achievement targets in each strategic plan to meet the minimum strength. This program develops defense equipment through procurement and empowers the defense industry to build independence. Indonesia applies the concept of capability-based defense in planning the development of a defense force

as implemented in the MEF program. Capability-based defense develops military power, including defense equipment for identifying budgetary capability-based threats (Kovac et al., 2013).

The main objective of this study is to identify and analyze the imbalance between the threats faced and the state of defense posture, as well as their impact on the country's defense budget (Fajrina et al., 2020). In addition, this study aims to provide policy recommendations to optimize defense posture according to actual and potential threats. The results of this study are expected to contribute to the development of the country's defense policy that is more adaptive to threat dynamics. The positive implication is increased effectiveness in mitigating risks and maintaining national security by the absolute national interest.

## METHODS

This research adopts a qualitative approach, by the definition of Creswell (2012), which states that a qualitative approach is a process of research and understanding based on a methodology that investigates social phenomena and human problems. The research method chosen is a case study, which focuses on an in-depth analysis of a particular case in contemporary life. This research limits its case to the Indonesian Navy's (MEF) Defense Equipment Modernization policy in 2015-2019.

The research object includes various parties related to implementing MEF policy, involving the government, users (TNI AL), supervisors and evaluators (Commission I of the House of Representatives), and defense and military observers. The list of research informants included Marine Colonel (H) Dr. Steven Toar Sambouw, Marine Lieutenant Colonel Andi Surya, TNI First Marshal Latif Ainul Yaqin, TNI Rear Admiral Dr. Iwan Isnuwanto, Meutya Hafid, and Dr. Connie Rahakundini Bakrie. The determination of informants is carried out purposively, considering that they have relevance and relevant information related to the research.

This study's main data collection technique was the in-depth interview, which was conducted using semi-structured interview guidelines. This approach allows researchers to gain a deep understanding of the process of drafting and implementing MEF policies. In addition, this study also used secondary data obtained through document search, by Creswell's (2012) suggestion that documents can be a valuable source of information in qualitative research.

The data analysis process uses the Miles and Huberman Model, which involves data reduction, presentation, and verification. Data reduction is done by summarizing and selecting important points adjusted to the military and political theories. The presentation of data is carried out narratively and descriptively. In contrast, verification is carried out through data triangulation by comparing the results of interviews with data from observations, conditions, and perspectives of informants with the views of the general public and highly educated parties and comparing the results of interviews with other relevant secondary data sources (Sugiyono, 2007). This data analysis is the basis for concluding research findings on implementing MEF policies in 2015-2019.

## RESULTS

### Implementation of Sea Defense Equipment Modernization Policy to Fulfill the Minimum Essential Force (MEF)

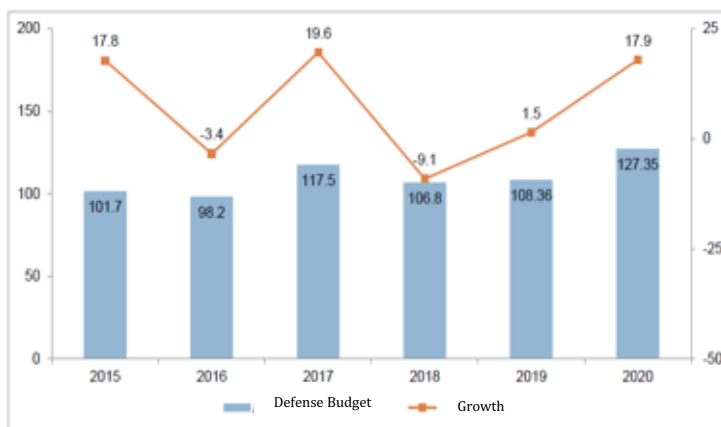
#### 1. Budget Realization

The Ministry of Defense and the TNI said that, in general, the reason for not achieving the defense equipment modernization target in the two MEF stages is budget constraints. The Ministry of Defense also revealed that the increase in the defense budget in the last ten years does not necessarily meet spending on defense equipment because, compared to other countries, the percentage of

Indonesia's defense budget to GDP is still relatively low. This is evidenced by an interview with Marine Lieutenant Colonel Andi Surya, who said that the main problem of the defense equipment procurement process in the two stages of MEF not meeting the target is budget constraints. This is because Indonesia's defense budget is still relatively small compared to other countries, thus hindering the Ministry of Defense and TNI from carrying out the process of purchasing the necessary defense equipment.

Based on data from the Stockholm International Peace Research Institute (SIPRI) in 2019, Indonesia's defense budget to GDP in 2009-2018 is still below 1%, or below the average defense budget in ASEAN countries. Based on BPS data, GDP based on current prices in 2019 was IDR 15,833.9 trillion (Tian et al., 2020). This shows that 2019 the defense budget allocation was only 0.68% of GDP. In the strategic plan of the Ministry of Defense and TNI for 2015-2019, it is stated that there is a target to increase the defense budget to 1.5% of GDP. But until now, it has not been achieved.

A different opinion was conveyed by Connie Rahakundini Bakrie, who said that budget constraints were not the main cause of defense equipment modernization not reaching the target, but rather defense management/defense governance, which was still unclear. The absence of a grand strategy for Indonesia's defense is the reason for not achieving MEF's defense equipment modernization target. This is also because MEF is still seen only as a policy whose defense equipment procurement target must be met in each period, not on the priority of threats to Indonesia's defense.



**Figure 1. Development of the Defense Budget for 2015-2019 (in trillions)**

Source: Memorandum of Finance and State Budget 2020, Ministry of Finance

Regarding the state budget posture, the defense budget in implementing MEF Phase II in 2015-2019 has increased significantly compared to the implementation of MEF Phase I in 2010-2014. Based on a financial memorandum released by the Ministry of Finance, the 2015 defense budget amounted to Rp 101.7 trillion; in 2016, it amounted to Rp 98.2 Trillion; in 2017, amounted to Rp 117.6 trillion; in 2018, it amounted to Rp 106.7 trillion; and in 2019, amounted to Rp 115.4 Trillion. The total defense budget derived from the 2015 to 2019 state budget amounted to 539 trillion, hereinafter referred to as the source of the pure rupiah (RM) budget. Based on data obtained from MEF evaluation documents, RM's budget is used only 29.9% for defense equipment modernization. In other words, about 70% of the defense budget derived from the state budget is used for routine expenses. To meet the lack of budget indications (baseline), defense equipment modernization uses funds derived from Domestic Loans (PDN) and Foreign Loans (PLN) with Export Credit (EC) mechanisms.

Information obtained from the Directorate General of Defense Planning states implicitly that the limited budget available in pure rupiah is one of the factors causing the implementation of MEF not to succeed in achieving the defense equipment modernization target. Moreover, the Navy's defense equipment is much more expensive and often used than PDN or PLN. From data provided by the Directorate General of Defense Planning, the percentage of detailed sources of funds for defense equipment modernization through MEF phase II in 2015-2019 is PLN 29.55%, PDN 81.35%, RMP 33.78%, and RM 21.99%.

Widjajanto said that one of the reasons that makes it difficult for Indonesia to develop a modern and resilient defense posture is the placement of the defense budget as a determinant of the development of Indonesia's defense posture. Defense budgets should be viewed as a dependent variable, not an independent one. The placement of these free variables causes deviations and utilization of non-APBN fund flows, which damage the governance of defense budgeting, whose sources must come from the government through the APBN. The enactment of dependent variables will force the state to formulate a defense policy accompanied by determining the amount of the defense budget, not vice versa, the defense budget that directs defense policy (Widjajanto, 2010).

Completing Widjajanto's statement, Colonel Steven argued that the absorption of the defense budget allocation was greater for routine costs. The largest allocation of routine expenses is salaries, while the zero growth policy in the TNI is not implemented. Zero growth policy is the implementation of the acceptance of TNI personnel with several retired TNI personnel. It aims to reduce the defense budget allocation for routine costs such as salaries and personnel allowances so that the defense budget can be allocated more for defense equipment modernization.

In addition to the problem of routine costs and zero growth, the preparation of a blueprint for defense budget management from the State Budget should be allocated to fulfill defense equipment on a high-priority scale. Still, the fact is that the specified procurement is not the main need. Data in the MEF evaluation document shows that the budget from the state budget is allocated for the procurement of bulletproof helmets to tank chains, which is not a priority need. This is evident from the achievements of the Army defense equipment, which is far more than the Navy and Air Force because it is mentioned that land defense equipment can be said to be cheaper and easier to obtain. On the other hand, Connie Rahakundini Bakrie also revealed that there has been no proportional budget allocation due to the defense budget management blueprint not being by the needs of priority defense equipment.

Based on Bakrie's statement, it can be said that the fulfillment of the Navy's defense equipment has not reached the target due to budget constraints. However, the main problem lies not in the lack of budget but in defense governance. Regarding the priority scale for the fulfillment of defense equipment, a statement from President Joko Widodo also emphasized that the TNI considers the priority scale before buying defense equipment, and defense equipment spending must be done wisely, both in size and allocation. This is an independent variable in the use of budgets, so implementers need to compile blueprints as a basis for decision-making in managing budgets outside of routine costs.

Decision-making regarding defense budget management also requires approval from Commission I of the House of Representatives, which, in fact, supports the procurement of TNI defense equipment to achieve targets. This support can be proven by approving a significant increase in defense budget. However, there are also allegations of conflicts of interest when the decisions taken are not by needs, supported also because the procurement of defense equipment still uses the services of intermediaries (brokers) who are less transparent, causing expenses to swell. Such intermediaries often influence government policy regarding strong political connections to certain parties. The funds wasted to hire intermediary services are unbalanced and can be seen in the inadequate quality of

defense equipment. As a result, many accidents are caused by obsolete defense equipment, one example is the KRI Nanggala 402 Submarine which sank (subsunk) in 2021. However, this is certainly denied by Commission I, the Ministry of Defense, and the TNI.

## **2. Different views of policy actors on the MEF**

Through interviews with Colonel Steven it was revealed that there is a different understanding of MEF among policy actors. The Ministry of Defense and the TNI define MEF as the modernization of TNI defense equipment with supporting facilities and infrastructure, while the Ministry of Finance and Bappenas understand MEF as limited to procuring defense equipment without supporting facilities and infrastructure. The difference in understanding also affects budget policy and results in the budget approved by the Ministry of Finance only procuring defense equipment, so that defense equipment procurement is often changed or canceled.

As previously explained, Bappenas RI makes adjustments between the defense equipment needs plan between RPJPN, RPJMN, and the defense equipment shopping list submitted by the Indonesian Ministry of Defense and the TNI. On the other hand, as the state treasurer, the Ministry of Finance has the right to allocate defense budgets from the state budget and determine the mechanism of domestic loans and export credits. If the Ministry of Finance and Bappenas do not allocate a budget to build defense infrastructure, the Navy assumes that the defense equipment procurement process cannot continue.

From the Asrena TNI AL, Admiral Iwan Isnuwanto said that developing facilities and infrastructure within the Navy is no less important than the modernization of defense equipment included in the MEF strategic plan. The modernization of defense equipment must be balanced with its infrastructure and vice versa. For example, the transfer of the Navy Pier in Halong Village had to be moved to the Navy Pier in Tawiri Village, Ambon Bay Area, Maluku, because the Navy's tonnage warships were blocked from leaning after the construction of the Red and White Bridge by the Ministry of PUPR. But another problem is that the new pier is not large enough to be a base, making the queue of ships long enough to lean on. This is one example of how buying ships to meet targets is impossible without continuous supporting facilities.

In addition to differences in views on defense equipment and supporting facilities and infrastructure between related institutions, there are also differences in views on the modernization of defense equipment within the TNI. As a military and defense observer, Connie Rahakundini Bakrie sees that structural problems hinder realizing an integrated system. This basic thing then became a problem in implementing the modernization of sea defense equipment, which did not go well. There must be a complete understanding and common perception of Maritime Defense.

The priority of fulfilling defense equipment certainly varies according to the interests of the *matra*, but these differences are too indicative of sectoral ego interests. This opinion was conveyed by Colonel Steven, who stated that the different understanding of MEF among these institutions concerns sectoral egos. Sectoral ego is one of the obstacles to implementing defense equipment modernization policy. It is also said that it has become normal if there is a sectoral ego dynamic, but it is not carried out by agencies structurally but by individuals. Although some aspects of the policy have been well regulated, the implementation is often beyond planned. However, in the Minister of Defense Regulation number 11 of 2023, the air and sea budget is given a larger portion in the MEF policy aspect. In addition to meeting the MEF target, this is done to realize Indonesia's vision as the world's maritime axis.

On the other hand, Connie Rahakundini Bakrie believes that in some defense equipment fulfillment plans, this sectoral ego problem is actually used as an excuse to change the defense equipment purchase plan. The reason for not being approved by the Ministry of Finance and Bappenas

is that the plan to purchase defense equipment is often an opportunity to change the purchase of other defense equipment not in the strategic plan. This condition is a loophole for the entry of entrustments of interests from arms brokers.

Bakrie's statement illustrates a form of attraction of interest amid policy actors to change the TNI AL defense equipment shopping list for certain interests. Even so far, the existence of the defense mafia or arms brokers has been considered an open secret, and many parties know it. The low effort to find a way out of sectoral egos shows stakeholders' absence of political will in the defense equipment modernization agenda. The decision to change the defense equipment purchase plan not by MEF's objectives is clearly not rational. Irrational decisions that are then passed for execution are evidence of certain interests. It also relates to actors who play a role in supervision and control.

### 3. Supervision and Control Not Optimal

The MEF phase II evaluation document for 2015-2019 stated that the implementation had not met the RPJPN target due to less than optimal supervision and control of the implementation of MEF development. Supervision and control include the planning process to policy execution. The results of the interview with Colonel Steven also confirmed that in addition to the budget and sectoral egos, supervision and control that were not optimal were the main causes of changes in the TNI shopping list in the middle of the current financial year. Supervision and control that are not carried out properly will result in consistency not being carried out in executing defense equipment procurement. Some shopping list changes are not adjusted to the MEF and RPJPN books. What happens is that changes in the Navy's shopping list in the implementation of MEF tend to be different from those projected on the initial list. In addition, these changes are also often not coordinated thoroughly by the existing bureaucracy.

The main point of the TNI's MEF policy is that all stakeholders supervise and control MEF development internally and externally. The Ministry of Defense, Ministry of Finance, Bappenas, TNI Commander, and Chief of Force Staff play a role in supervision and control by their respective levels of authority. Supervision and control policies on MEF development are prioritized to:

- a. Optimizing monitoring in supervision and control of the implementation of MEF development by involving all stakeholders.
- b. Optimize the completion of recommendations from each finding of the results of supervision and control, both internal and external.
- c. Improve the pattern of supervision and control that refers to the new paradigm, namely; Pre Audit, Current Audit, and Post Audit (Ministry of Defence, 2015).

However, in its implementation, supervision and control are not optimal. In the Minister of Defense number 17 of 2014 concerning the Implementation of Defense Equipment Procurement in the Ministry of Defense and the TNI, the TNI is authorized to submit a shopping list of defense equipment to the Directorate General of Defense Planning. If the budget is available, the defense equipment shopping list is submitted to the Directorate General of Defense Force to synchronize with the needs plan prepared in the MEF book. After the plan declares the shopping list, the execution process is handed over to the Defense Facilities and Infrastructure Agency (Baranahan Kemhan). On the other hand, Marine Lieutenant Colonel Andi Surya stated that the procurement of Navy defense equipment in 2010-2017 allegedly had an empty gap for synchronizing the shopping list submitted with the needs plan by the MEF book. The empty gap is the attitude of passing the stages of the procedure as a whole. Hence, it depends on how appropriate or deviated the Navy's defense equipment fulfilment in that year.

In line with this statement, the actor who plays an important role in supervising and controlling defense equipment modernization policies through MEF is Commission I of the House of

Representatives of the Republic of Indonesia. Through an interview with the Chairman of Commission I for the 2019-2024 period, Meutya Hafid revealed that the control role carried out by Commission I has been running well because communication between Commission I and the Ministry of Defense and the TNI has always been carried out.

Meutya Hafid's statement shows that Commission I of the House of Representatives of the Republic of Indonesia controls every process of implementing modernization policies. The stakeholders' decision to change the TNI AL defense equipment shopping list is also inseparable from the approval of Commission I of the House of Representatives. The interview excerpts show that Commission I approved the defense equipment shopping list change due to the unavailable budget. On the other hand, researchers tried to dig more into the parameters used by Commission I to approve the decision.

Based on Meutya Hafid's statement, it can be said that stakeholder decisions that are not by the needs of defense equipment always find a middle way to approve them. On the other hand, Connie Rahakundini Bakrie explained that the supervision carried out by Commission I of the House of Representatives of the Republic of Indonesia has not been effective due to the negotiation and coordination process. The approval by Commission I was obtained through coordination and negotiation, while the supervision process should not allow coordination and negotiation. In the process of supervision, there are often closed-door meetings by Commission I, which then results in the approval of decisions not by policy objectives, proving that there are certain interests.

This lack of supervision and control opens loopholes for abuse of authority among stakeholders. So that the evaluation needed to improve the defense sector is outside the operation, information about the weapons procurement process should no longer be used as a state secret. Changes must start from Commission 1 of the House of Representatives of the Republic of Indonesia, which must carry out budget transparency for defense equipment purchases.

#### **4. Domestic Defense Industry Not Optimal**

The development of the defense industry is an integrated part of strategic planning in managing national resources for the benefit of national defense to produce defense equipment and maintenance services to support the MEF. The availability of defense equipment so far has not been fully supported by the domestic defense industry optimally, so there is still dependence on foreign defense equipment products. The MEF document in the Regulation of the Minister of Defense number 39 of 2015 states that four important things are of concern in realizing the empowerment and empowerment of the domestic defense industry. First, cross-sectoral cooperation to meet defense needs; second, the managerial aspects of Indhan (BUMN/BUMS) can be managed properly; third, meeting budget needs and adequate human resource capabilities; fourth, the availability of facilities and infrastructure that support smooth development (Ministry of Defense, 2015).

The independence of the defense industry is an effort to improve the ability of the national industry, which is supported by the defense industry, which has high technological characteristics and high accuracy and is followed by the development of supporting industries or other national industries. Therefore, the defense industry must be integrated, including in terms of mastery of technology, to strengthen the industrialization process broadly. There are several efforts to develop the defense industry. Here are the steps based on those listed in the TNI MEF document 2015-2019 (Ministry of Defense, 2015):

##### **a. Strengthening Regulations and Utilization of Alpalhankam Procurement from Abroad.**

Law Number 16 of 2012 concerning the Defense Industry becomes a legal umbrella for the Defense Industry. It simultaneously brings certainty about the vision, mission, and direction of the



development of the Defense Industry. Implementation Rules as a derivative product of Law Number 16 of 2012 have been prepared and ratified as PP or Perpres. Strengthening regulations will continue to be pursued to achieve the independence of the Defense Industry. If the defense industry cannot produce defense equipment as needed, it can be met through procurement from abroad with the condition of trade, local content, or offset.

**b. Foreign Cooperation in the Field of Defense Industry.**

Cooperation with countries or industries that own technology can be in the form of making joint defense equipment (Joint Production), joint development of new defense equipment (Joint Development), or establishing a joint business in Indonesia (Joint Venture). This effort must be carried out earnestly so that technology industry owners have confidence in domestic Indhan's technology transfer worth.

**c. Industrial and Technology Mapping and Sustainability of Defense Industry Development.**

The development of the defense industry is closely related to technological developments. Industrial relations are not only carried out vertically, which include the main combiner industry (lead integrator), main component industry, component industry, and raw material industry but also build horizontal relationships from a technology family, which includes propulsion support, which is divided into Land Matra Platform, Sea Matra Platform, Air Matra Platform. Mastery of technology is used for measurement through the level of mastery of technology or Technology Readiness Level (TRL), which includes components including design and design capabilities, the ability to translate designs into production lines, the ability of technological infrastructure, educational capabilities, and HR skills, the existence of certification and standardization, maintenance and maintenance capabilities.

In addition to designing efforts to develop the defense industry with these steps, it is also necessary to synchronize and harmonize between the fulfillment of defense equipment needs and the development of the defense industry so that they complement and strengthen each other. Here are projections of meeting the needs of TNI defense equipment through the defense industry in the MEF:

- a. The development of MEF Phase I, which is the initial stage of defense equipment, is accompanied by the development of the defense industry with an orientation towards program determination, stabilization and optimization of the defense industry, preparation of defense industry regulations, and preparation of new future products.
- b. The construction of MEF Phase II, the next stage of defense equipment development, leads to posture, accompanied by the development of the defense industry, which is focused on supporting MEF, increasing production cooperation capabilities, and new product development.
- c. The development of MEF Phase III, which is the transition stage of defense equipment development towards the ideal posture, is accompanied by the development of the defense industry, which is focused on supporting the ideal posture, industry growth (medium-term products), and new product development-advance technology (increasing international cooperation).
- d. The development of the ideal posture after the MEF is achieved, accompanied by the development of the defense industry that leads to significant defense industry independence, the ability to collaborate internationally, and sustainable development.

In the 2015-2019 MEF evaluation document and information obtained through interviews with Colonel Steven, it is implied that the domestic industry has not been able to support the fulfillment of defense equipment as needed, so the modernization of defense equipment that has occurred so far tends to depend on foreign industries. This causes the costs incurred to meet defense equipment needs

to be more expensive. In addition to high prices, the procurement process of defense equipment also becomes very long because it is adjusted to the conflict situation in the country.

On the other hand, an interview conducted with military and defense observer Conie Rahakundini Bakrie stated that actually the hope to realize the independence of the defense industry should be adapted to the current global situation, and MEF is not the only way to achieve the independence of the Indonesian defense industry.

Bakrie's statement shows that the lack of optimal contribution of the domestic defense industry to support the modernization of TNI defense equipment through MEF is also related to the consistency of the perpetrators. The domestic defense industry should be able to develop and even advance, if there is structural revamping from above. So the procurement of defense equipment is not only considered as a waste of budget and for certain interests. The existence of the defense equipment mafia also causes the domestic defense industry to be still not optimal. The absence of government commitment in the context of defense represented by the Ministry of Defense opens the gap in the entry of other parties' interests in the procurement of defense equipment because the defense industry is unable to meet defense equipment needs.

### **Factors affecting the implementation of the Navy's defense equipment modernization policy in the minimum essential force phase II of 2015-2019**

#### **1. Content Variables Affecting the Implementation of TNI AL Defense Equipment Modernization Policy in MEF Phase II 2015-2019**

Grindle said that policy implementation is an effort to realize the policy objectives stated in policy formulation as policy statements into policy outcomes that arise from government activities. The success of policy implementation is influenced by two main variables: degrees of ability in the policy implementation process. These variables include policy content (content of policy) and policy context (context of implementation).

Content or substance of policies that are controversial, non-populist, and touch on fundamental change are generally responded to strongly by the public. The substance of the policy is also not easily implemented by implementers, so it will be difficult to achieve success targets. Aspects of policy content include the public interest to be targeted, benefits, targets of change, the position of policymakers or location of decision-making, policy implementers, and resources (Grindle, 2017).

The aspect of public interest that is targeted is a measure of the impact of the substance of the policy on the interests of the target group (target group). The benefit aspect is the size of the benefits received by the target group and the general public. The benefits in question reach many interest groups and will be increasingly supported, making it easy to implement. The target aspect of change is the amount of change resulting from the policy substance. If the resulting change is big and reaches fundamental things, then its implementation will be more difficult, and vice versa.

Aspects of the position of policymakers or decision-making parties related to the decision-making model of the number of parties involved. The more parties involved, the more difficult it is to make decisions. The aspect of policy implementers or program implementers is a measure of stakeholder competence in policy implementation. The resource aspect is a measure of infrastructure support in policy implementation. The resources in question are influenced by the choice of strategies and instruments used in policy implementation.

The MEF development target proves that the interests accommodated through the implementation of the MEF touch the national interest, which is absolute because it concerns the interests of the nation and state, so it can be said that the targeted public interest aspects will have a direct impact. Regulation of the Minister of Defense number 39 of 2015 concerning the development

of TNI MEF states that the objective of the MEF policy is to meet the minimum standards of defense strength in conditions of a limited defense budget.

To realize these goals, MEF II development targets include (Ministry of Defense, 2015):

- a. The realization of strength and defense capabilities that can face various threats.
- b. The organization of the development of the TNI MEF while still focusing on the modernization of defense equipment is supported by increasing the value and development of organizations and infrastructure, taking into account budget availability by the strategic plan for the development of the country's defense force.
- c. The realization of the development of the national defense industry through mastery of technology, cooperation in technology development and technology transfer, as well as production cooperation carried out in an integrated and sustainable manner for the benefit of national defense.
- d. The implementation of international cooperation to build the country's defense capabilities and defense diplomacy capacity, as well as mutual trust and understanding between the Ministry of Defense and/or the Armed Forces.
- e. The fulfillment of the dispatch of professional troops and supported by adequate equipment and infrastructure in the activities of world peacekeeping missions by the needs and requests of the United Nations.
- f. The implementation of defense area empowerment to increase the security of land areas and land borders through the concept of an integrated security belt and increased security of small islands as Indonesia's foremost / outermost region.
- g. The implementation of the deployment of sea power and air power to increase maritime security and aerospace security in the area of national jurisdiction.
- h. The realization of increasing the capacity of defense Research and Development cooperation with university R&D and defense industry R&D in the framework of an independent defense industry.
- i. The implementation of effective, efficient, and accountable asset and budget management in achieving the TNI's MEF development goals.
- j. The realization of intelligence strengthening through improving the state defense information system (Sisinfohanneg) based on cyber defense and increased professionalism.
- k. The realization of effective and synergistic organizational structuring in dealing with threats in 2 (two) trouble spots in 3 (three) defense areas.

The beneficial aspects of MEF implementation are inseparable from the type of interests accommodated. If the interest of the policy substance concerns the absolute national interest, then the benefit is the security, safety, and integrity of the nation and state. To consider the aspects of accommodated interests and perceived benefits, it can be said that the MEF policy should have the full support of all parties to be implemented.

The TNI MEF implementation aims to build a military force and capability that can anticipate various threats in two trouble spots and one reserve force. The target of this capability shows that the development of the TNI MEF is further oriented towards the realization of three defense areas. Thus, organizational development is needed both centrally and regionally through Kotama TNI's development by prioritizing the Integrated Trimatra concept (Ministry of Defense, 2015). The target does not touch fundamental matters, so the potential for rejection from many parties can be minimized.

On the other hand, to meet these targets, defense budget allocation targets are prepared in the defense budget baseline. In non-war situations, large budgets are often met with resistance from the

public. The MEF policy substance should also be obligatory to publish defense budget allocations spent on weapons and other purchases so that the public can support the content of the policy.

Percentage of the Minister of Defense number 17 of 2014 concerning the Implementation of Defense Equipment Procurement within the Ministry of Defense and the TNI, states that the implementers of defense equipment modernization policies through MEF consist of parent organizations and procurement organizations. The position of the parent and procurement organizations indicates that the highest decision-making position is the Minister of Defense as the User of the Budget. On the other hand, the procurement mechanism for TNI defense equipment is carried out bottom up. Each force's Planning Assistant (Asrena) determines the defense equipment modernization planning document, while the Logistics/Communication Assistant prepares the potential provider appointment document. For policy implementers, these decision-making mechanisms make decision-making relationships more difficult.

Aspects of policy implementers' competence in MEF implementation can be measured in several categories based on their functions and tasks. The evaluation of MEF Phase II 2015-2019 includes five things: threat complexity, interoperability, capability objectives, guidelines in the MEF book, and optimization of supervision and control (Ministry of Defense of the Republic of Indonesia, 2019). First, the complexity of threats is associated with developing a highly dynamic strategic environment that makes threats increasingly complex and difficult to predict. This condition requires that the country's defense policy, including the TNI's MEF development policy, be constantly reviewed to adjust to the threats.

Second, the development of the TNI MEF is guided by the concept of an integrated Trimatra, which requires interoperability between defense equipment, units, and matra. However, in implementing MEF development, fulfilling these requirements has not been accommodated and has not become a priority. So, in improving the ability from command, control, communication, computers, and information (K4I), there are still several obstacles. This is also similar to efforts towards network-centric warfare/operation (NCW/NCO) capabilities or network-based warfare/operations that cannot take place effectively despite the ongoing modernization of defense equipment. This problem arises due to the absence of standardization and technological gaps between defense equipment in the K4I system.

Third, capability objectives have not been clearly defined. The TNI's MEF strategic products, which have undergone several revisions and alignments, have consistently used capability-based defense and capability-based planning approaches. However, capability goals have not been clearly formulated as guidelines in developing the TNI MEF. Fourth, the TNI MEF book has not been fully used as a guideline in developing the TNI posture. The TNI MEF book, which contains a detailed list of TNI MEF development activities according to the stages of its implementation, has not been fully used as a guideline in its implementation. In fact, the activity programs in the book have been prepared and agreed upon jointly by the Ministry of Defense, TNI Headquarters, and the Force, so they should consistently be used as references and guidelines in fulfilling the TNI MEF.

Fifth, supervision and control mechanisms have not been implemented optimally. The implementation of supervision and control that has been established through a monitoring team has not been effective. The scope of TNI MEF development is relatively broad, and its phasing over a relatively long period of time requires intensive and integrated supervision and control in its management, so it is expected that the program that has been determined can run according to plan and achieve/meet targets.

Some of these evaluations prove that the competence of policy implementers is still lacking, such as interoperability, targeting capabilities, and monitoring and control mechanisms. The hampered interoperability is due to competence among operational staff in mastering technology, so there is a gap between systems. In addition, the determination of capability targets, which is the responsibility of the drafters of the TNI defense equipment needs plan such as the Directorate General of Kuathan and TNI Logistics Staff in each force, proves that the ability of implementers to translate threat conditions with planning has not been carried out optimally. Supervision and control are specifically related to political will, but in its management related to the competence possessed by policy implementers. These three aspects of evaluation prove that the weak competence of implementers is a factor that hinders the implementation of MEF from achieving its goals.

The resource aspects in MEF implementation are the budget and the defense industry. The realization of the defense budget never reached the pre-planned baseline. Increasing the capability of the defense industry and coaching is also not running optimally while empowering the defense industry is one of the efforts to reduce the burden of defense equipment modernization costs.

## **2. Context Variables Affecting the Implementation of the Navy's Defense Equipment Modernization Policy in MEF Phase II 2015-2019**

Implementation context is a variable used to measure the behavior of policy actors that affect policy implementation. The behavior of the policy actors in question is that of individuals who do not escape their personal interests. The context of policy implementation is a variable representing the environment in which policy implementation will occur, which can be interpreted as a political process. Aspects in the context of policy implementation include the power of actors who have interests, the characteristics of the regime or institution, and the level of compliance and response of policy implementers.

The power aspect of actors will influence policy implementation based on their power positions and strategies used to realize their personal interests. On the other hand, the regime's characteristics will influence policy actors' behavior in the process of implementing policies. The characteristics of the regime can also be measured from the political system to which it refers. A democratic regime will minimize intervention in policy in every institution, and on the contrary, an authoritarian regime will centralize and intervene strongly in policy in every institution. Then regarding aspects of the level of compliance and responsiveness of policy implementers will affect consistency in implementing policies according to procedures and the responsive ability of policy implementers.

The power aspect of actors who have interests is a factor that greatly influences the implementation of MEF policies. Positions of power that provide an opening for the entry of self-interest exist at every level of power, from the highest level of power to the middle level. The loophole for abuse of power for personal interests at the highest level of power is in the position of the Budget User and the Power of the Budget User, namely the Minister of Defense, the Secretary General of the Ministry of Defense, the Commander of the TNI and the Chief of Staff in each force. This is because every defense equipment procurement and maintenance process that requires financing must get approval from the Budget User and the Power of Budget User. In addition, the command culture within the Ministry of Defense and the TNI causes the possibility of policy actors at the middle and lowest levels of power acting unnoticed by officials at the highest levels of power.

On the other hand, the strategy used by actors interested in implementing MEF policies is to keep public access away from planning, implementing, and evaluating defense equipment modernization policies. Often, defense issues tend to be covered up based on state secrets, while budgets must be transparent, including defense budgets. Actors who have private interests tend to take

advantage of Article 17 in Law Number 14 of 2008 concerning Public Information Openness, which excludes several categories of information in the defense sector as public information. Point C in article 17 of the KIP Law states that the exclusion of public information in the defense and security sector includes seven things, namely:

- a. Information on strategies, intelligence, operations, tactics, and techniques related to the country's defense and security systems, covering the planning, implementation, and evaluation stages in relation to threats from within and outside the country.
- b. The document contains strategies, intelligence, operations, tactics and techniques related to the country's defense and security system, covering the planning, implementation and evaluation stages.
- c. The number, composition, disposition or dislocation of forces and capabilities in administrating the country's defense and security system and its development plan.
- d. Images and data about the situation and state of military bases and/or installations.
- e. Data on estimates of the military and defense capabilities of other countries are limited to all actions and/or indications of that country that may endanger the sovereignty of the Unitary State of the Republic of Indonesia and/or data related to military cooperation with other countries agreed in the agreement as confidential or highly confidential.
- f. State cipher system.
- g. State intelligence system.

These seven categories of public information exclusions are often used as a reason to close all access to information in the defense sector. The TNI MEF Development Annex Document and the TNI MEF Alignment Document are confidential documents that the public cannot access, while the defense budget allocation for defense equipment modernization needs to be known to the public considering the large amount of defense budget and corruption cases that have occurred before. Discussion meetings with Commission I of the House of Representatives of the Republic of Indonesia are also often held behind closed doors. This makes the public consider the defense issue is an elite issue, so it cannot be monitored.

Policy actors' concerns about disseminating information for foreign countries to map Indonesia's defense conditions are almost impossible to contain in the current era of information disclosure. The purchase of weapons with the G to G (Government to Government) mechanism automatically opens up plans for defense equipment needs and Indonesia's budget availability to other countries, although not comprehensively. In addition to the G to G mechanism, in the process of purchasing weapons, a tender mechanism can be followed by partner companies from private arms manufacturers and distributors so that these circles can obtain similar information. Suppose several groups outside the policy implementer can obtain information about the plan for defense equipment needs and budget availability. In that case, there is no reason to close the information to the public. Based on research interviews conducted, it is known that the process of purchasing defense equipment is not confidential. The secret is where the item is used, where it will be used, how it will be used, by whom it will be used, and the details of the weapon system. Thus, if the further public access to engage in supervision, the greater the potential for abuse of power for personal interests.

Aspects of regime or institution characteristics that affect the implementation of MEF can be measured from the political system to which it is referenced. Democratization, which has occurred since the fall of the New Order rule, has encouraged reforms in many sectors, including civilian military control. Croissant states that five areas of state policy can be used as indicators of civilian control over the military (Croissant & Wurster, 2013). The five areas are elite recruitment, public policy, domestic

security, national defense and military organization. For countries that have just entered the stage of democratic transition, only three of them contribute greatly to the quality of democracy, so it must be controlled by civilians. These three are elite recruitment, public policy, and domestic security. Meanwhile, the area of national defense and military organization did not directly impact the survival of the newly emerging democratic regime. This means that military prerogatives are still needed in both areas. In line with Croissant's opinion, the defense sector in Indonesia is still managed with military dominance. On the other hand, this has led to a bias between the democratic bureaucratic model and the paternalistic nature of the military in the Ministry of Defense.

If measured by the regime's influence on defense policy, the era of President Joko Widodo's leadership could not intervene in the implementation of the MEF. This is evidenced by the vision of the world maritime axis inspired by President Joko Widodo, who made the Navy a respected armed force in the region so that ideally, the Navy's defense equipment spending will get the largest portion of defense spending. However, in practice, the allocation of Navy defense equipment expenditures has not increased significantly and is still carried by land. This shows that the characteristics of a democratic regime that do not have the political power to intervene in resolving obstacles coming from military personnel are one of the causes of the non-optimal implementation of defense equipment modernization policies through MEF.

Aspects of the level of compliance and responsiveness in MEF implementation can be measured from the consistency and responsiveness of policy implementers. The results of the evaluation in MEF phase II contained in the 2019 MEF Alignment Policy document and the Strategic Defense Review document stated that the implementer has not been fully guided by the TNI MEF Book, namely the annex document of the Minister of Defense number 39 of 2015 concerning the Development of the TNI MEF 2015-2019. This is because the implementation of defense equipment modernization in MEF is not by the planned needs determined in the strategic plan. Based on interviews conducted by researchers and resource persons from the Directorate General of Renhan Kemhan, Directorate General of Kuathan Kemhan, and Asrena KSAL, the TNI defense equipment shopping list often changes in the middle of the current fiscal year. Changes in the shopping list of Navy defense equipment are often not even by the needs of the Navy defense equipment prepared in the needs plan document.

In addition, there are several changes to the shopping list of Navy defense equipment that are not coordinated with all parties; in other words, they only involve several parties. Regulation of the Minister of Defense number 17 of 2014 concerning the Implementation of the Procurement of Main Equipment of Weapon Systems within the Ministry of Defense and the TNI also stipulates the parties involved in the modernization of defense equipment and the procurement mechanism of TNI defense equipment. A shopping list of defense equipment submitted by the TNI to the Directorate General of Defense Planning to adjust budget availability. If the budget is available, the defense equipment shopping list is submitted to the Directorate General of Kuathan to synchronize with the needs plan prepared in the MEF book. After the plan declares the shopping list, the execution process is handed over to the Defense Facilities and Infrastructure Agency (Baranahan Kemhan).

This proves that implementing defense equipment modernization in MEF is no longer by the essence of MEF itself, which refers to the deterrence function. Policy implementers who do not comply with following procedures, laws, and regulations related to MEF implementation not only result in the objectives of the MEF deviating from the original goal but also open the gap for the emergence of abuse of power or abuse of power, which causes the modernization of TNI defense equipment through MEF has not reached the target to date.

**CONCLUSION**

The implementation of the modernization of Navy defense equipment through MEF Phase II 2015-2019 has not optimally achieved the desired target. Factors such as limited defense budgets that are not by previous planning needs, differences in understanding between policy actors of MEF, less optimal supervision and control in the implementation process, and the role of the domestic defense industry that has not been optimal are the main obstacles. Evaluation of documents, interviews with stakeholders, and monitoring from defense and military experts show that the main constraint lies not only in limited resources but rather determined by the political will of policy actors. Consistency in implementation according to planned needs, commitment to transparency and accountability, and increasing resource capacity through priority scale and empowerment of the defense industry are aspects that require political will support to minimize conflicts of interest and increase the effectiveness of MEF implementation.

**REFERENCES**

- Afenyo, M., & Caesar, L. D. (2023). Maritime cybersecurity threats: Gaps and directions for future research. *Ocean and Coastal Management*, 236. <https://doi.org/10.1016/J.OCECOAMAN.2023.106493>
- Alqahtani, F., Selviaridis, K., & Stevenson, M. (2023). The effectiveness of performance-based contracting in the defence sector: A systematic literature review. *Journal of Purchasing and Supply Management*, 29(5). <https://doi.org/10.1016/J.PURSUP.2023.100877>
- Bueger, C., & Liebetrau, T. (2023). Critical maritime infrastructure protection: What's the trouble? *Marine Policy*, 155, 105772. <https://doi.org/10.1016/J.MARPOL.2023.105772>
- Chen, Z., Hong, D., Cui, W., Xue, W., Wang, Y., & Zhong, J. (2023). Resilience evaluation and optimal design for weapon system of systems with dynamic reconfiguration. *Reliability Engineering and System Safety*, 237. <https://doi.org/10.1016/J.RESS.2023.109409>
- Creswell, J. W. (2012). *Research design: pendekatan kualitatif, kuantitatif, dan mixed*.
- Croissant, A., & Wurster, S. (2013). Performance and persistence of autocracies in comparison: introducing issues and perspectives. *Contemporary Politics*, 19(1), 1–18.
- Dirhamsyah, D., Umam, S., & Arifin, Z. (2022). Maritime law enforcement: Indonesia's experience against illegal fishing. *Ocean and Coastal Management*, 229. <https://doi.org/10.1016/J.OCECOAMAN.2022.106304>
- Fajrina, A. N., Roziqin, A., & Sihidi, I. T. (2020). Studi Geopolitik Laut China Selatan: Data Dan Analisis Media Sosial. *Jurnal Lemhannas RI*, 8(2), 115–130.
- Grindle, M. S. (2017). *Politics and policy implementation in the Third World* (Vol. 4880). Princeton University Press.
- Gülcan, T. A., & Erginer, K. E. (2023). National and international maritime situational awareness model examples and the effects of North Stream Pipelines sabotage. *International Journal of Critical Infrastructure Protection*, 42. <https://doi.org/10.1016/J.IJCIP.2023.100624>
- Han, Q., Pang, B., Li, S., Li, N., Guo, P. song, Fan, C. li, & Li, W. min. (2023). Evaluation method and optimization strategies of resilience for air & space defense system of systems based on kill network theory and improved self-information quantity. *Defence Technology*, 21, 219–239. <https://doi.org/10.1016/J.DT.2023.01.005>
- Hartono, A. S. (2021). Universal War Strategy Supported Political Integration Reviewed from The Third Sila Pancasila; The Unity of Indonesia. *Journal of Social Science*, 2(3), 228–234. <https://doi.org/10.46799/jss.v2i3.127>



- Jianxing, G., Peiyuan, D., Jiarui, Z., Quan, L., & Yushan, G. (2022). A Network Structure Optimization Method for Key Place Air Defense System. *IFAC-PapersOnLine*, 55(3), 213–218. <https://doi.org/10.1016/J.IFACOL.2022.05.037>
- Kovac, M., Stojkovic, D., & Mitic, V. (2013). Capability based defence development planning-optimal option selection for capability development. *XI Balkan Conference on Operational Recarch (BALCOR-2013), Conference*, 551–558.
- Lee, J. G., & Park, M. J. (2020). Evaluation of technological competence and operations efficiency in the defense industry: The strategic planning of South Korea. *Evaluation and Program Planning*, 79. <https://doi.org/10.1016/J.EVALPROGPLAN.2019.101775>
- Moreira, M. Â. L., de Souza, G. V. P., de Araújo Costa, I. P., Junior, W. T., Fávero, L. P., dos Santos, M., & Gomes, C. F. S. (2023). Defense Perception in the Geopolitical Scope: An exploratory study through unsupervised machine learning. *Procedia Computer Science*, 221, 689–696. <https://doi.org/10.1016/J.PROCS.2023.08.039>
- Nindya, A. P., & Abiyya, R. A. (2022). Pengaruh AUKUS terhadap Stabilitas Indo-Pasifik dan Sikap Indonesia [The Influence of AUKUS to Indo-Pacific Regional Stability and Indonesia's Stance]. *Jurnal Politika Dinamika Masalah Politik Dalam Negeri Dan Hubungan Internasional*, 13(1), 67–84.
- Rifai, M., Tutu, A., Mulyani, M., Sunra, A., & Prihantoro, K. (2022). PENGARUH ANGGARAN PERTAHANAN DAN MINIMUM ESSENTIAL FORCE DALAM MENGHADAPI ANCAMAN NON MILITER:(Studi di Direktorat Jenderal Kekuatan Pertahanan). *Citizen: Jurnal Ilmiah Multidisiplin Indonesia*, 2(1), 183–198.
- Sarjito, A., Ali, Y., & Wijaya, A. F. (2019). Efektivitas Kebijakan Minimum Essential Force Komponen Utama Tentara Nasional Indonesia Angkatan Laut. *Manajemen Pertahanan: Jurnal Pemikiran Dan Penelitian Manajemen Pertahanan*, 4(2).
- Sugiyono, P. (2007). *Statistika Untuk Penelitian, Bandung: CV. Alfabeta.*
- Supriyatno, M. (2014). *Tentang ilmu pertahanan.* Yayasan Pustaka Obor Indonesia.
- Tian, N., Kuimova, A., Lopes Da Silva, D., Wezeman, P., & Wezeman, S. (2020). *Trends is World Military Expenditure, 2019. Stockholm International Peace Research Institute.*
- Tuncer, O., & Cirpan, H. A. (2023). Adaptive fuzzy based threat evaluation method for air and missile defense systems. *Information Sciences*, 643. <https://doi.org/10.1016/J.INS.2023.119191>
- Widjajanto, A. (2010). Evolusi doktrin pertahanan Indonesia. *Prisma*, 29(1), 3–20.
- Widodo, S. (2019). Implementasi Kebijakan Pembangunan Kekuatan Pertahanan Udara. *Jurnal Ilmiah M-Progress*, 9(2).
- Yudhistyra, W. I., & Nugroho, E. (2014). Lima Metode Perencanaan Strategis Sistem Informasi Dan Teknologi Informasi Untuk Pengembangan E-Government. *Seminar Nasional Teknologi Informasi Dan Komunikasi*, 236–244.

---

**Copyright holder:**

Gracia Sarah Armadani, Meidi Kosandi (2024)

**First publication rights:**

International Journal of Social Service and Research (IJSSR)

**This article is licensed under:**