

## **A Defense and Security Equipment Cooperation Policy Model for the Collective Production Policy as a Road Map for the Independence of the Indonesian Defense Industry**

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### **Abstract**

*A country's priority should be on strengthening the security and defense sectors as a support for other prospective industries. Indonesia as a country has a golden vision of 100 years of independence by 2045. As a result, Indonesia is developing a military sector that is self-sufficient in terms of manufacturing, maintenance, and technology, which will be employed later in all defense and security equipment. A survey of the literature that explains the concept, notably the independence of the Indonesian defense industry, cooperation policies, and joint defense production. The research methodology used is a literature review, which is defined as an explicit, systematic, and reproducible method for carrying out identification (observation), evaluation (assessment), and synthesis (relationship) of a written work from research results and thoughts derived from the results. practitioners and researchers. The road map for Indonesian defense industry independence, the interests of defense industry cooperation policy, the benefits of joint defense and security equipment production policies, and the implementation of cooperation policy models. The study's conclusion is a model that describes a joint policy in the procurement of defense and security equipment for cooperation policies as a road map for the independence of the Indonesian defense industry to be carried out properly and in accordance with the objectives of the integrated, sophisticated, competent, and independent defense vision. It is believed that the policy will develop and grow appropriately.*

**Keywords:** *Production Policy, Cooperation, Industrial Independence.*

### **INTRODUCTION**

As a means of bolstering other prospective industries, a nation must prioritize strengthening the security and defense sectors. Indonesia as a nation has a gilded vision for 2045 in preparation for its centennial celebration. As a result, Indonesia is constructing a defense industry that is independent in terms of production, maintenance, and the technology that will eventually be used in every defense and security device. With the existence of a policy paradigm based on cooperation, a road map for achieving defense industry independence can be constructed. This is potential, strategic, and vital because it relates to regional stability and state security in the face of a wide variety of threats resulting from the accelerated development of technology. In order for the defense

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industry to develop efficiently, a policy model that is advantageous to it is required. (Welford, A.T., 1952) Increasing technological advancements in the defense system must be a demand and need that must be met immediately by all nations, including Indonesia, in order to avert all potential threats that can appear at any time. With the Indonesian government's response, a decision in the form of Law No. 16 of 2012 concerning the defense industry was issued. The law contains provisions that audit all parties' cooperation in activities to strengthen the Indonesian defense industry with the production of necessary defense equipment, ensuring that synergy is established consequently that it can operate optimally and develop properly, and that there are no strikes in the defense industry's development of defense equipment production. This policy establishes a legal framework for the development and expansion of the national defense industry in the interest of national security.

To reinforce this decision, the Indonesian Ministry of Defense issued Minister of Defense Regulation number 23 of 2016, which contains provisions for strengthening the defense industry in the design of realizing the needs (of defense and security equipment) that must be fulfilled so that it can support the interests and needs of an efficient state security. Innovative, expert, contemporary, efficient, and well-integrated. The regulation specifies that state-owned enterprises and privately owned enterprises within the scope of groups or individuals selected by the government are responsible for implementing defense industry initiatives, either for the entire process or for a portion of it. So that the output of the defense industry can be utilized as a tool for the ideal development of security and defense components.

The development of the defense industry requires an appropriate and accurate model of cooperation policy due to the interdependencies between institutions, the mutually beneficial nature of cooperation, and the shared mission that will be executed. (Cummings, M.L., and P.J. Mitchell. 2006). It is not recommended when collaboration is established, interests outside of the common objectives emerge, or only one institution benefits. This will result in an unhealthy cooperative policy, so the objectives attained will serve as a mere example. The results of a sound model of cooperation policy can be used to create road maps. (Weida, W., 1986) In addition, the focus is not solely on the procurement or production of defense equipment; other factors must also be considered or coordinated with the procurement or production of defense equipment. Maintenance of defense equipment that is intended to serve as a means of defense for the State of Indonesia must also be a concern in order for various defense equipment to function or operate optimally. In terms of empowering industrial resources, they must be included in the procurement because they provide the necessary materials for the manufacture of defense and security apparatus. When these elements are correctly interconnected, the nation will no longer be reliant on foreign markets for the materials required to manufacture defense equipment. If these factors, such as empowerment, maintenance, production, and technology, are effectively synchronized, then the independence of Indonesia's defense industry can be deemed successful.

The joint production policy must be a model for the independence of the defense industry because it can capitalize on lessons learned in the production of defense equipment so that the technology for the production of defense equipment can be readily and effectively mastered, such as through reciprocal production systems, transfer of technology (ToT), and on-the-job training (OJT) in industries that specialize in the production of defense equipment. This study discusses the implementation of the cooperation policy model in joint production of defense and security equipment, the form of a road map for the independence of the Indonesian defense industry, and the benefits of the defense and security equipment joint production policy.

## LITERATURE REVIEW

### Indonesian Defense Industry Independence

In its tenth year of independence, Indonesia remains highly dependent on foreign countries for defense technology. Thus, the formulation of long-term defense development plans will be fraught with uncertainty. An intimate relationship with foreign goods will have an effect that is susceptible to political factors such as embargoes and restrictions. Another issue is that the defense industry's independence has not yet been achieved, resulting in deficiencies in the Indonesian government's readiness and prevention expertise. In the realm of politics, this climate will make Indonesia more susceptible to foreign political pressures, which may result in embargoes or restrictions on certain equipment that reduce the maintenance and construction of defense facilities. It is so impossible to implement self-sufficiency in the development and procurement of defense facilities that it is an absolute. Neuman, Stephanie G. (2010). In addition, no nation or industrial institution in the world relies solely on its own expertise; there must be connections with other nations or defense industries. When an independent defense industry exists, its impact on the provision of efficient defense will be undeniable. Industrial empowerment that is strategically aligned with national defense interests has nothing to do with an arms race; it merely aims to achieve independence in the production or procurement of state defense facilities in order to preserve regional stability and the integrity of the Indonesian state.

The development of Indonesia's national-level defense industry is essential or crucial in order to meet the demand for optimally operationalizable defense facilities for the provision of defense. In the upcoming period, the need for defense facilities that rely on foreign production will create difficulties and impact the expertise and readiness of the security forces to carry out operational missions. In response to this situation, the national defense industry must be utilized immediately. Nevertheless, the actual manifestation of the defense industry cannot be carried out by the defense sector, which is a single entity with no ties to other sectors. The empowerment of national-based industries for defense development requires collaboration between the three pillars of Indonesia, including universities, research and development agencies, the Ministry of Defense/Indonesian National Army, and the private sector.

### Cooperation Policy

A policy is an action or inaction taken by the government. From the standpoint of policy systematics, the policy has a six-step process from start to finish, as detailed below:

1. A description of policy issues. The introduction of policy issues is possible through the introduction of demands for government action.
2. Establishing a schedule (agenda setting). Agenda-setting is the process of focusing the attention of the mass media and the public authority on the provisions that will be determined for particular public issues.
3. Policy formulation. The formulation of policy involves initiatives and the preparation of policy proposals by policy planning institutions, government bureaucracy, interest groups, legislative bodies, and the president.
4. Confirmation of policy (legitimizing of policies). Confirmation of policy through political behaviour, such as that of pressure groups from the president, Congress, and political parties.
5. Implementation of policies (policy implementation). Budgets, executive agency activities, and bureaucracy are utilised to carry out policy implementation.

6. Policy evaluation (policy evaluation). Policy evaluation is conducted by government organisations, the general public, the press, and consultants outside the government's purview. (AT Kearney: 2011).



Figure 1: Policy Map

Cooperation policy involves coming up with problems, making policy agendas, coming up with policies, making decisions and policies, putting policies into place, and evaluating policies. Dunn discusses the following cooperation policies: (1) strengthening or structuring a common policy agenda (agenda setting); (2) policy formulation, with the calculation of determining what possible cooperation policies will be used to solve problems through forecasting steps (the influence of each possible policy is determined); and (3) adopting policies, ensuring policy choices through the encouragement of the legislature and executive, which previously carried out recommendation steps or policy proposals; (4) Implementation of policies, the hierarchy in which the policies that have been appointed are carried out by certain institutions or administrative units with budgetary and resource directions to encourage smooth implementation. In this step, the policy monitoring process is carried out; (5) policy assessment is a step to carry out an assessment of policies or policies that have been implemented (Chesbrough, H., 2006).

#### Defense Industry Joint Production

As an explanation for this joint production endeavor, a number of collaborations have been attempted with parties from both inside and outside the country. Using foreign examples, such as South Korea, a number of foreign nations have expressed their willingness to assist Indonesia. Cooperation in the production of Defense and security equipment with foreign parties will occur in the areas of research and technological advancements in the procurement of energy sources, even metal materials, and semiconductors, as well as materials that power defense equipment and improve the quality of human resources (Choi, Hee Jun, 2009). Co-production is the process of transforming raw materials into ready-to-use materials or tools by dividing the phases of production between institutions or nations in an effort to enhance the quality of these products. It is supported by domestic defense industry, foreign defense industry, and institutions involved in the procurement of Defense and security equipment components when discussing joint production. Indonesia has participated in a number of collaborative production initiatives with other nations in the defense sector, as detailed below:

1. Joint production cooperation between the Indonesian and German defense industries in the Transfer of Technology (ToT) for Leopard Tanks in the 2012-2014 period

2. Indonesia and the United Arab Emirates carry out cooperation in the field of

defense industry cooperation in Joint Production for tankboat products and weapons products. Cooperation is carried out with a domestic strategic company, PT. Pindad with 2 defense industry companies in the United Arab Emirates namely Al-Seer and Caracal. For joint production cooperation, an MoU was signed which contained the distribution of Defense and security equipment procurement, such as: regarding weapons, the company Caracal (United Arab Emirates) and PT. Pindad Indonesia. As for the tankboat project, the company Al-Seer (United Arab Emirates) and PT. Pindad Indonesia.

3. Indonesia and Russia cooperate in the production of 4x4 tactical vehicles which are processed by 2 defense industry companies, namely VPK (Russia) and PT. Pindad (Indonesia).

4. Indonesia and Finland, whose collaboration was carried out by Savox (Finland) with PT. Pindad (Indonesia) in co-producing communication tools for the benefit of Indonesia's security and defense.

5. Collaboration between South Korea and Indonesia in the procurement of submarines through joint production of DSME (South Korea) and PT. PAL (Indonesia) has gone through three stages of procurement in the period from 2009 to 2024. This has gone through 3 schemes for building and procuring submarines which have become a strategic goal of maritime territory security. the schemes used are comprehensive research schemes, Transfer of Technology (ToT), and Transfer of Knowledge (ToK).

## RESEARCH METHODOLOGY

The method used in this paper is a literature review, which is defined as an explicit, systematic, and reproducible method for carrying out identification (observation), evaluation (assessment), and synthesis (relationship) of a written work based on research and ideas gleaned from practitioners and researchers. (Rahayu et al. 2019).

Introduction, evaluation, and integration of works resulting from practitioner or researcher-conducted studies or research and ideas. This literature review utilizes international journals, books, news, and other sources pertinent to the discussion as library sources for the compilation of journal articles. There are several phases or stages in writing a literature review. According to Polit & Hungler in Carnwell (2001), the process consists of five steps:

- (1) Define the scope of the main ideas to be reviewed,
- (2) Identify and examine substantial sources,
- (3) Review literacy,
- (4) Copy the results of the review, and
- (5) Link the literacy to the study or research to be carried out.

In addition, it can be linked to review steps such as:

- (1) selecting the topic to be reviewed,
- (2) selecting and searching for relevant or appropriate articles or literacy materials,
- (3) conducting literature analysis and dissemination, and
- (4) grouping review and writing (Smith, L., Anthony. 2003).

## DISCUSSION

### Road Map of Indonesian Defense Industry Independence

Efforts in the development of the defense industry are a manifestation of comprehensive national development and growth, as well as a component of the provision of defense as a whole and in its complexity. (Albright, R.E and Kappel, T.A. 2003). The roadmap for the development of defense industry in includes the users (Indonesian National Armed Forces, security forces, and the Ministry of Defense), those who design, produce, and test, researchers with expertise in their fields, and proper planning within the design framework of the three principles of players in the defense industry. The road map for the three principles of beautiful actors in connecting the R&D community and universities with the expertise to develop and study defense science and technology, strategic industries that include science and technology, and the Indonesian National Armed Forces/Ministry of Defense as users. The Indonesian National Armed Forces and the

Ministry of Defense are not only consumers or recipients of results from the strategic defense industry, but they must also participate in enhancing the design of defense equipment in order to obtain prototypes of requirements. In order to achieve the independence of the Indonesian defense industry, a research and development institution that functions as a liaison between industry and users plays a crucial role.

The Ministry of Defense intends to advance Indonesia through advancements in command support, cruising range, combat power, computerization, communication based on cutting-edge technology, the control and information center (K41), and qualified logistics. This is documented in the defense industry development policy decisions as the legal basis for the defense industry's production independence goals. The Ministry of Defense must have unanimity of purpose in establishing a path to the defense industry's independence. The defense and security industry is a formation of all the golden opportunities for the national industry, both privately owned and government owned, which must be able to independently or as a community create Defense and security equipment and its maintenance for the national defense and security needs. In this way, the national industry is one of the national infrastructure foundations that must be mapped so that national defense and security can be managed. Therefore, the national industry must be systematised in such a manner that one aspect of its expertise is the defense industry to support the defense and security requirements of the state for armaments system equipment.

The establishment of a strategic industrial management body that manages ten State-Owned Enterprises with strategic value for technological development in Indonesia is one of the concept maps that the government is currently implementing to ensure the State's success in mastering and developing technology. It is anticipated that the ten industries will become technological centers of excellence or centers of excellence in their respective disciplines. Within the framework of the technology and industrial transformation plan for the development and mastery of technology contained in strategic industries in the area of the strategic industrial management agency, the following technological and industrial transformation instruments are represented:

1. The shipping & maritime industry is represented by PT. PAL Indonesia
2. The aerospace or aviation industry is represented by PT. IPTN
3. The electronics and telecommunications industry is represented by PT. INTI and LEN-Strategic Industry Management Agency
4. The land transportation equipment industry is represented by PT. INKA
5. The agricultural machinery and equipment industry is represented by PT. Barata Indonesia
6. The energy generation equipment industry is represented by PT. BBI
7. The defense industry is represented by PT. Dahana and PT. Pindad

#### Defense Industry Cooperation Policy Interests

In this regard, it was determined that the objective of rendering the defense industry potentially independent would be very simple to attain if raw materials were sourced domestically (Dapa, 2011). In order to reduce the relatively strong ties between domestic and foreign industries. The supply of industrial raw materials will be of utmost significance for the defense industry to achieve independence, which begins with a policy of cooperation. The external industrial cooperation is required to utilize or direct the encouragement to transform raw materials into finished products. Through industrial cooperation, production experience will convey the necessary technology for future Defense and security equipment manufacturing. The majority of the key parts can be manufactured by the domestic defense industry. The cooperation will also lead to

measures that are consistent with economic growth and strategic industries. (Parasuraman, R., R.T. Molloy, and I.L. Singh, 1993). The cooperation from multiple parties, including external parties, is required in order to acquire sophisticated and modern defense and security equipment, both in terms of defense equipment and non-defense equipment, with the capacity to strengthen Indonesia's territorial defense. The foreign defense industry will be studied in-depth later on. This requires comprehensive oversight so that no party feels disadvantaged by the policy of cooperation in the defense industry.

#### The Advantage of Defense and Security Equipment Joint Production Policy

The advantage of joint production policies for the acquisition of Defense and security equipment is the fulfillment of Indonesian security and defense facility requirements. (Hunt, F, Mitchell, R, Phaal, R and Probert, D, 2004). This situation will establish a pattern of a defense industry that is well integrated and capable of meeting the needs of defense and security equipment, both defense equipment and non-defense equipment, so that the Republic of Indonesia's sovereignty can be defended with competitiveness. With the development of cooperation, which was originally just a procurement into the production of Defense and security equipment, the variety of benefits arising from industrial development through this co-production policy is very large (Rohi. Douglas R, 1973).. such as the program that has been implemented, Tradeoffs for Local Content, which requires ordering domestic products, and the national budget for developing the production of Defense and security equipment. In addition, the transfer of technology (ToT) program can produce advanced and internationally competitive defense industry products. So that it can be relied upon to secure surveillance of the Republic of Indonesia's territory, because effective, sophisticated, modern, and durable products are affixed to Indonesian defense or non-defense equipment. It is anticipated that the program will continue to be implemented so that the defense industry's human resources are appropriately equipped in terms of capability and capacity.

#### The Implementation of Cooperation Policy Model

This model is put into place in steps, and how well it works depends on how well different ministries and institutions work together to reach the goals of the cooperation policy. (Disam. 1996). The defense industry's execution of a mission or authority can be influenced by the establishment of policy models. The primary objective is to be autonomous, powerful, innovative, and highly competitive. Therefore, the implementation of the cooperation policy must be coordinated with the responsible institution in order for the government-mandated program to be a success. The mandated conditions must be adhered to by the policy's actors. Such as the Minister of Defense's role as an assistant to the executive branch, specifically the president, in the area of national defense, as well as nurturing defense technology and industry. The completed phases of implementing cooperation policies in the procurement of defense and security equipment through joint production, including planning, agreements, guidance, production, assessment, and evaluation of the results of alusista production In order to create a transparent attitude in the defense system production cooperation policy, these steps were taken. In order to establish a foundation of trust between parties, allowing for future expansion into other areas.

## CONCLUSION

To expedite the development of the defense industry, a model of beneficial policy is required. Increasing technological advancements in the defense system must be a demand and need that must be met immediately by every nation, including Indonesia, in order to prevent all potential threats that can appear at any moment. With the Indonesian government's response, Law No. 16 of 2012 was enacted to regulate the defense industry.



The law requires all parties to cooperate in activities to strengthen the Indonesian defense industry with the production of defense equipment so that synergy can be established and it can run optimally and develop properly with no strikes in the development of defense equipment production in the defense industry. This study examines the implementation of the cooperation policy model in joint production of defense and security equipment, the form of a road map for the independence of the Indonesian defense industry, and the advantages of the joint production policy for defense and security equipment. Cooperation Policy, Indonesian Defense Industry Independence, and Joint Production in the Defense Industry The method utilized in this paper is a literature review, which is defined as an explicit, systematic, and reproducible method for carrying out identification (observation), evaluation (assessment), and synthesis (relationship) of a written work based on the results of research and the thoughts of practitioners and researchers. Discussion of the road map of the three principles of beautiful actors in connecting the R&D community and universities with expertise in the development and study of defense science and technology, strategic industries that include science and technology, and the Indonesian National Armed Forces/Ministry of Defense as users The Indonesian National Armed Forces and the Ministry of Defense are not only consumers or recipients of results from the strategic defense industry, but they must also be involved in enhancing the design of defense equipment in order to obtain prototypes of their requirements.

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