

The Development of the Indonesian Defence Industry as a Consequence of Security Dilemma and Arms Race in the Southeast Asian Region

Muhammad Arsy Ash Shiddiqy^a, Arry Bainus^b, Widya Setiabudi Sumadinata^c, Arfin Sudirman^d, ^aUniversitas Islam Riau, ^{b,c,d}Universitas Padjadjaran, Email: ^aarsyshiddiq@soc.uir.ac.id, ^barrybainus@unpad.ac.id, ^cw.setiabudi@unpad.ac.id, ^darfin.sudirman@unpad.ac.id

This paper explains the development of the Indonesian defence industry as a consequence of the Security Dilemma and Arms Race that occurred in Southeast Asia (Study in PT. Pindad). The security conditions in the Southeast Asian region are relatively safe and there have never been direct confrontations or head-to-head wars between countries in the region, not even a confrontation between Indonesia and Malaysia. During the cold war era, security in the Southeast Asian region was guaranteed by two super powers, the United States and the Soviet Union. Some sort of bias happened in this region, when the cold war ended, European countries were committed to reducing their military budget while the opposite happened in Southeast Asia. This research used a qualitative approach to explore theoretical concepts in this study: the Security Dilemma, Arms Race, and defence industry concepts. The results of this study indicate that Southeast Asian countries are starting to aggressively increase their military budget and defence capability through the development of the domestic defence industry, particularly Indonesia. PT. Pindad as one of the domestic defence industries that is able to produce most of the needs of the defence equipment for land defence such as: Light and heavy rifles, Missiles and Mortars, Ammunition and Rockets, as well as tactical and combat vehicles such as Panzer and Tank. the latest, the Medium Tank Tiger chain wheel has supported the needs of the TNI and Polri and for Commercial. This study aims to explain and analyze the dynamics of the Security Dilemma and Arms Race that happen in Southeast Asia, as well as Indonesia's involvement in this phenomenon so as to enhance the ability of Indonesia's domestic defence industry.



Key words: *Defence Industry, PT. Pindad, Security Dilemma, Arms Race, Southeast Asia.*

Introduction

Even though the security situation in Southeast Asia is currently in a peaceful condition and there is no significant conflict, it is undeniable that the threat of war may occur in the future. The important solution is to improve the defence industry and the strength of the main defence equipment system. The security situation in Southeast Asia after the Cold War is still considered uncertain and unlike in Europe, the main arena of the Cold War, where the end of the Cold War was accompanied by pressures to reduce military budget and demands for the benefits of peace, in Southeast Asia and generally in the Asia-Pacific the opposite is occurring. The Economist newspaper in its February 20, 1993 edition noted that Asian countries were now involved in the process of building military power. Military analyst Michael T. Klare, in his observations published in the 1993 Summer edition of *Foreign Affairs*, predicted that the arms race would take place intensively in the Asia Pacific. Likewise, in the 1998-1999 edition of the Institute for Defence and Strategic Analysis (IDSA, New Delhi) report on defence/military spending and weapons acquisition, Asian countries experienced an increasing trend. Specifically for Southeast Asian countries, the results of a study conducted by Amitav Acharya in 2005 also showed the same symptoms.

One of the main functions of military presence in a country is to fulfill the role of defence and maintain regional sovereignty. Located right in the middle of two Oceans and two continents, Indonesia is a country subject to a range of threats. A brief history of the past security of the Southeast Asian region highlights that: the Philippines and Malaysia have disputes in northern Borneo; Malaysia and Thailand have border issues and Indonesia's relations with Malaysia and Singapore have experienced the worst extent of confrontation which did however end before the formation of ASEAN. Meanwhile, Vietnam's civil war escalated and the United States interfered with Laos and Cambodia also caught in a similar situation. It was in the context of such a bleak geopolitical background, Indonesia, Malaysia, Singapore, the Philippines and Thailand declared the establishment of ASEAN in 1967 (Raja Samudra, 2011).

A Security Dilemma is a condition carried out by a country to improve the security of its country by increasing its defence or by forming an alliance with another country as carried out by its neighbors, due to a perception of "worry" about the security of its own country. According to John H. Herz, the security dilemma is "a structural idea in which the efforts taken by a country to maintain its own security needs, regardless of their intentions, tend to inconvenience other countries, especially those around them, because each country (which takes the action) considers that the action taken is merely defensive and the actions taken by other countries are threatening. The arms race is defined as a dynamic process of interaction



between countries or coalitions of countries that are competitive, dynamic, and forced to acquire their weapons. "Arms Race is a situation in which two or more countries try to have more and stronger weapons than each other" Arms race can also be interpreted as a continuous competitive effort (militarily) carried out by two or more countries, each of which has the capability to make more and stronger weapons than the others.

The Defence Industry is a national industry consisting of state-owned and private-owned business entities either individually or in groups determined by the government to partially or wholly produce defence and security equipment maintenance services to meet strategic interests in the field of defence and security located in the territory of the Unitary Republic of Indonesia (Indonesian Constitution Number 16 of 2012). The development of the defence industry in the Southeast Asia region is still relatively new and not as advanced as neighboring regions such as East Asia and South Asia and especially in Europe and America. Of all ASEAN members, only a few countries have qualified defence industries, including Indonesia, Singapore, Thailand and Vietnam. Based on data from the GFP (Global Fire Power), these countries also have qualified military rigor, while other member states are still buying in full for their defence equipment needs. In contrast to these countries, Indonesia is the most developed defence industry in the Southeast Asian region. There are a number of defence industries that Indonesia can be proud of and which are capable of producing sophisticated and powerful military equipment, although they are not as sophisticated and advanced as American, Russian and European products. Indonesia then already produces some of her domestic defence needs which are also in great demand by neighboring countries (Raghavan and Ben-Ari, 2016).

The current capability of the Indonesian domestic defence industry is now at an intermediate technology level. This means that the Indonesian defence industry already supplies for and has been used by the Indonesian National Army. For example, land defence equipment made by PT. Pindad, ranging from pistols and assault weapons to mortars and tire wheel combat vehicles (Panzer Anoa) has supported the needs of the Army. In terms of air defence equipment, PT. Dirgantara Indonesia is now developing a production collaboration with Airbus Military to build medium-sized transport aircraft C-212, CN-235, and CN-295, which have 50 parachutes. The same is true for the manufacture of Bell-412 assault helicopters and Cougar-725 helicopters. On the side of marine defence equipment, PT. PAL is relied upon for the construction of large-scale warships, such as corvettes class and submarines. PT. PAL was also encouraged to make battleships for tankers. The private defence industry has contributed greatly to fast patrol boats measuring 60 meters and below, such as Palindo and Lundin (Hamidi, 2010: 121).

In an effort to meet the needs of defence equipment, the Government of Indonesia must strive to improve the capabilities of its strategic industries in order to support its armed forces, and



as such strategic industries need to be developed to be able to achieve independence. One of the strategic industries enhancing the capabilities of the TNI (Indonesian National Army) defence equipment is PT. Pindad. PT. Pindad is one of the state-owned companies that aims to provide for the needs of the Main Tool of the Weapon System independently and to support the implementation of the defence and security of the Republic of Indonesia. PT. Pindad, which is widely used by the TNI, provides light and assault rifles, munitions and mortars, combat vehicles and rockets through to medium tanks.

To be able to analyze the problem above, this study researched a number of references and previous research relating to the defence industry, Security Dilemma, Arms Race, and PT. Pindad. This research is different from previous studies because the object of this research is the development of the Indonesian defence industry, PT. Pindad as a consequence of the Security Dilemma and Arms Race that occurred in Southeast Asia. It is different from previous studies which mostly focus on the cooperation and business processes carried out by the defence industry and not the defence and security aspects.

Several previous studies that discuss the defence industry in terms of security, business, and politics are as follows, Muradi (2015) which is about the defence industry funding model and human resource improvement. This research discusses several factors that hamper the defence industry in developing and advancing, including the development of defence technology, funding models, and enhancing human resources in the defence industry. Another article is from (Yogaswara 2017) with the title *Strategy of Accelerating the Mastery of Technology and the Defence Industry* (case study in South Korea). This paper took South Korea as a role model that should be emulated in the development of defence technology and industry as within a period of three decades South Korea can almost compensate for defence technology that is controlled or owned by developed countries such as Europe, the United States, and Russia. The next article of relevance from Novi Surya Ningsih, (2017) is about ADIC (Asean Defence Industry Collaboration) Cooperation to determine the weapons platform. The four countries that are members of the ADIC cooperation felt that the dependence on imports of defence equipment from outside was very large and therefore agreed to conduct a joint review of the needs and equality of weapons platforms for the four countries. The aim was to develop the capabilities of the fourth defence industry countries to minimize the import of defence equipment from countries outside the region.

Several studies have focused on the security situation in Southeast Asia in general and only describe the dynamics of conflict between regional countries, likes border disputes, theft of marine products, peoples and drug smuggling, terrorism, and the seizure of natural resources, but do not really discuss other potential conflicts such as the Security Dilemma and Arms Race in the Southeast Asian region. Increased military power and the development of the defence industry in each regional country are a tangible form of the Arms Race, and this could be a



potential conflict if not managed properly by regional countries. (Arfin Sudirman and Deasy Silvyva Sari, 2017; Triyoga Budi Prasetyo and Sugeng Berantas, 2014; Dewitt and David, 1994; Mathews and Jessica Tuchman, 1988; Alexander J. Oliver, 2009). Most of the articles sourced only describe the security conditions in the Southeast Asian region in general, and none has examined the effect or impact of the development of the defence industry on regional security conditions.

Based on the author's identification of previous studies that discusses the Security Dilemma, Arms Race, and the defence industry, none have discussed and examined specifically the locus at PT. Pindad as one of Indonesia's leading defence industries in the Southeast Asia region. Most of research only focuses on business processes and cooperation in the defence industry, and some research only addresses the complexity of security conditions in the Southeast Asian region. In summary, the research conducted to date describes the development of Indonesian domestic defence industry, PT. Pindad as a consequence of the Security Dilemma and Arms Race that happened in Southeast Asia. It highlights that it is absolutely necessary for Indonesia to build the capability of the domestic defence industry so that it is always ready to face potential threats from the region and globally.

Based on the results of the literature review of previous studies, this research was proposed under the tittle *The Development of Indonesia Defence Industry as a Consequences of Security Dilemma and Arms Race at Southeast Asian Region* (Study in PT. Pindad). The results of this study will be significant Southeast Asian countries, especially for the Indonesian Government in the context of building a great military power through development of the local defence industry.

Research Methods

This study used a qualitative methodology, a widely used research method in the social sciences, such as anthropology, sociology and psychology. Political science and international relations are also part of the group of knowledge that, in the main, uses qualitative research methods as an option when conducting research. A generic definition of qualitative research methods is that it is an approach that explores and understands the meaning which is considered by a number of individuals or groups of people to originate from social problems (Cresswell, 2014). Anyone involved in this form of research must apply an inductive perspective of research, focus on individual meanings and translate the complexity of a situation.

Research on *The Development of Indonesia Defence Industry as a Consequences of Security Dilemma and Arms Race at Southeast Asian Region* (Study in PT. Pindad) was conducted using descriptive qualitative research methods. This research activity was carried out in Southeast Asian Region and specifically in Indonesia as an origin of PT. Pindad defence



industry. Primary data analysed was obtained directly in conducting research through field observation activities, FGD activities and in-depth interviews with research respondents. Secondary data was obtained relating to The Development of Indonesia Defence Industry (which is PT. Pindad) consisting of; annual reports and research results that have been published in the form of books, scientific journals, articles and related to research problems and all laws and regulations relating to research.

Data collection activities in research on The Development of Indonesia Defence Industry as a Consequence of Security Dilemma and Arms Race at Southeast Asian Region (Study in PT. Pindad) was carried out in several ways: through observation activities by the research team, through observing the actual situation on the ground and observing the symptoms that exist and arise. Furthermore, the research team conducted in-depth interviews with research respondents such as Indonesian Ministry of Defence, PT. Pindad Indonesia, Secretariat of ASEAN in Jakarta in order to obtain accurate information.

Results and Discussion

The Dynamics of Security Dilemma and the Arms Race really happened in the Southeast Asian region post-Cold War era. Subsequent to the absence of security guarantees from the two super powers, United States and the Soviet Union, all countries in the region were motivated to increase their respective military capabilities. This increase was realized by increasing the military budget, increasing defence cooperation, retraining military personnel, adding and renewing combat equipment, and increasing the ability of the domestic defence industry respectively. All of these measures were taken because countries in the region realized that the potential conflict in the future would be difficult to avoid. This research intends to analyze the dynamics of the Security Dilemma and Arms Race that happened in Southeast Asia as an important factor that made Indonesia aware of the need to increase military power through the development of a domestic defence industry, a component of which is PT. Pindad.

Increasing military power is of course a sensitive matter because it can cause security dilemmas for other countries. Adagium of security dilemma at least confirms two things. First, efforts to increase the military strength of a country tend to always be interpreted as a developing offensive power by other countries, and second, it is difficult to distinguish between defensive forces and offensive forces. This can lead to miscalculation, misjudgement and mistrust. Increasing the military power of a country is a necessity, especially if there is a driving factor in that direction. That is, increasing the military power of countries in the region does not stand alone but there are factors that cumulate to make a move in that direction. In the context of the Southeast Asian region, the driving forces are regional tensions, border disputes, the seizure of natural resources, the shift of US military activity to Asia, and the increasing presence of China on the South China Sea.



The security dilemma and arms race in the Southeast Asian region are still at the level of conventional arms competition, not at the level of a fierce arms race. When comparing aspects of the quantity of weapons possessed by countries in Southeast Asia both by the Army, Navy and Air Force respectively, Indonesia in general has offset and is even leading. Military modernization or an increase in military power that occurred in Asia, especially Southeast Asia, is actually also a logical consequence of economic growth. This is what happened in the five main countries in Southeast Asia called the Big Five: Indonesia, Singapore, Thailand, Malaysia and Vietnam. In addition, the expansion of regional security coverage that must be safeguarded based on their respective national interests has also contributed to encouraging countries in the region to increase their military strength in order to be able to reach their security territory. Indonesia, Malaysia and Singapore, for example, have an interest in the security of the Malacca Strait, as well as other Asian countries that make these strategic waters their energy and trade supply routes. Increasing the military power of countries in the region will become a problem, if misperceived and suspected as a form of threat to security in the region.

In the long journey of the International Relations studies, a security dilemma is known as one of the major concepts used in analyzing international situations where the security and peace situation cannot be fully guaranteed. Security Dilemmas generally occur in a condition where a country increases its defence force policy which is purely intended for self-defence, but is often considered different by other countries that it aims to attack. This then encourages enemy countries to supply weapons to increase their military strength caused by them perceiving the worst, that the country they are facing, is planning to carry out attacks.

Security dilemma and thus vulnerability in both conflict-prone regions such as East and South Asia, and relatively peaceful regions such as Southeast Asia, China and Japan and South and North Korea are clear examples where tensions arise as a result of increased security. In a similar response, China has also modernized its military. Each country actually feels threatened by increasing military power from other countries. The threat then encourages them to take part in efforts to increase their defence and security as is also the case with India and Pakistan. This is one of the most common manifestations to date of the security dilemma. Another example is that when Iran produces nuclear power on the grounds to replace oil as the main source of energy, Israel and various countries in the region feel threatened and take the same steps to offset Iran's initiatives. Likewise with countries in the Southeast Asia Region, when Singapore massively increased its military budget and purchased military equipment on a large scale, neighbouring countries such as Indonesia, Thailand and Malaysia also did the same thing because they felt threatened by what Singapore's conduct.

Arms Race is defined as a dynamic process of interaction between countries or coalitions of countries that are competitive, dynamic, and with circumstances forced to acquire their weapons. "Arms Race is a situation in which two or more countries try to have more and

stronger weapons than each other". Arms race can also be interpreted as a continuous competitive effort (militarily) carried out by two or more countries, each of which has the capability to make more and stronger weapons than the others. The development of the defence industry will always be associated with the concept of security, the definition most often used by International Relations researchers is the Buzan's definition in his book *People, States, and Fear* which proposes that: "security, in any objective sense, measures the absence of threat to acquired values, in a subjective sense, the absence of fear that such values will be attacked" (Buzan, 1991: 4). So it can be seen that security is the absence of threats from the values that humans need in living their lives (Buzan, 1991).

National defence is an important aspects in ensuring the existence and survival of the nation state. A solid state defence will be able to realize a strong nation. The construction of a strong defence demands the fulfilment of modern defence equipment needs. Indonesia aims to produce its own military equipment and not depend on other countries by 2029. Indonesia is one of the strongest countries in Southeast Asia as measured for example by the quality of its military soldiers. On the other hand, Indonesia also has sophisticated weapons manufactured by PT. Pindad that are competitive in the international market and which are exported to other countries such as Singapore and Thailand.

Indonesia is the largest country in the Southeast Asian region. When viewed from a defence aspect, Indonesia has a military fleet that makes its neighboring countries nervous. According to data from the Global Firepower Index (GFP) Indonesia's military strength is above the average country in Southeast Asia, even higher than Australia. There are several factors that prove Indonesian military strength should not be underestimated by its neighboring Southeast Asian countries including Australia. The real proof is the completeness of the land weaponry equipment owned by the Indonesian military. Further to having a complete combat tool, Indonesia also has its own domestic Defence Industry that can produce defence equipment for its military needs such as Light and Heavy Rifles, Missiles and Ammunition, Combat Vehicles, and Medium Battle Tanks, all of which can already be produced by PT. Pindad. This is what makes neighboring countries cautious of Indonesian military capabilities (Jaka Hadi, 2012: 111).

The Indonesian military is supported by military weapons and modes of transportation that are sophisticated and reliable. One of the providers of weapons and military equipment in Indonesia is PT. Pindad. In the field of weapons, PT. Pindad manufactures rifles, sniper rifles, machine guns, grenade launchers, mortars, pistols, shotguns, and submachine guns. The rifles, include SS1-M1, SS1-M2, SS1-V1, SS1-V2, SS1-V5, and SS1-R5 variants. The SS2 variant, is a shotgun for long range targets of up to 400 meters. The series includes SS2-V1, SS2-V1 HB, SS2-V2, SS2-V2 HB, SS2-V4, SS2-V4 HB, SS2-V5, SS2-V5 A1, SS2-V7, and SS2-V7 Subsonic which are the latest variant that is able to fire bullets without sound. Each SS2 series

features ACOG binoculars (standard equipment) for remote use. The SS3 variant is the latest variant in the PT. Pindad is designed to be a Main battle rifle for various battle scenarios. There are two Sniper Rifles, the SPR-3 and SPR-2. The SPR-3 is a submachine gun with a lightweight body and precision design, and meets NATO standards with a shot accuracy of 1km. The SPR-2. Shotguns or SG-1 12 gauge series rifles, have a long-barrel and butts carved from walnuts to enhance the beauty and comfort of use for firing various munitions from conventional, rubber, to slug munitions. In addition to meeting domestic military weaponry needs, PT. Pindad also exports weapons to other countries, such as exporting SS2-V5 to Bangladesh, SS1 Rifles to Cambodia, SS1 V1 Rifles to Mali and Nigeria, and 20 million tons of bullets to the US.

In the combat vehicle sector, PT. Pindad produces 4x4 KOMODO tactical vehicles and ANOA 6x6 Armored Vehicle produced in various variants and participating in UN world peace missions in Lebanon, Central Africa and Sudan. While the 6x6 Anoa has a series of mortar, command, amphibious, recovery, APC (Armored Personnel Carrier), Ambulance, and Logistics. PT. Pindad is researching and developing with the prototype ready for mass production of medium tanks called Tiger tanks. This vehicle is equipped with a 105mm Turret weapon and is capable of passing through various battlefields. In 2018, Army Recognition announced, PT. Pindad export of combat vehicles, tanks, munitions and other military equipment to meet military weapons needs in countries in Southeast Asia, Africa, United Arab Emirates, South Korea, Nigeria and Timor Leste, with an export value of \$US 32.6 million.

Figure 1. Produk Pertahanan PT. Pindad



Building an independent defence industry is important for Indonesia because military equipment is generally expensive and absorbs the state budget. In the 2018 State Budget and Expenditure (APBN), the Ministry of Defence received the largest budget allocation of IDR 107.7 trillion (US \$ 6.9 billion), more than the Ministry of Health (IDR 59.1 trillion), the Ministry of Research and Technology (IDR 41.3 trillion), and the Ministry of Education and Culture (Rp. 40.1 trillion). Table 1.1 below details Ministry of defence spending by country.

Table 1.1: Daftar Anggaran Militer Negara-Negara ASEAN 2018

No.	Negara	Anggaran Militer (\$)
1.	Indonesia	\$ 6,900,000,000/Rp 100,050 T
2.	Vietnam	\$ 3,365,000,000/Rp 48,792 T
3.	Thailand	\$ 5,390,000,000/Rp 78,155 T
4.	Myanmar	\$ 2,400,000,000/Rp 34,800 T
5.	Malaysia	\$ 4,700,000,000/Rp 68,150 T
6.	Philippina	\$ 3,000,000,000/Rp 43,500 T
7.	Singapura	\$ 9,700,000,000/Rp 140,650 T
8.	Kamboja	\$ 192,000,000/Rp 2,784 T
9.	Laos	\$ 18,500,000/Rp 261 M

Sumber: *Global Fire Power (GFP)*

Conclusion

Based on the explanation above, it can be concluded that the development of the Indonesian domestic defence industry is absolutely necessary, given the large number of potential threats that could at any time strike at Indonesian sovereignty. The situation of security dilemma and Arms race that occurred in Southeast Asia is a real threat to Indonesian sovereignty. The commitment of all countries in the Southeast Asian region to increase the military budget and improve their military capabilities if not responded to by the same thing will make Indonesia look weak. Therefore, increasing the ability of Indonesian domestic defence industry must be done to respond the security dilemma and Arms race that happened in Southeast Asia. PT. Pindad as one of the mainstays of Indonesian domestic defence industry has shown its strength both regionally and globally. PT. Pindad has been able to meet most of the needs of Indonesian National Military and attract the interest of many countries with the products that are of most interest, Assault Rifles, Combat Vehicles such as the Anoa Armoured Vehicles, and most recently the Medium Tanks in collaboration with Turkey's FNSS.

The adage of the realists who said, "if you want to feel peaceful prepare for war", is relevant to the increasing military budget of each country. It is apparent that interests can be fought for by means of force, and that the military is an absolute prerequisite especially when speaking in the context of a country's security. The current multipolar condition has indeed removed the



rivalry between the two blocs that existed during the Cold War era, but it certainly did not succeed in removing the rivalry between countries that still had ideological differences or poor historical backgrounds. Enmity among neighboring countries is still very high. The Arm Race has further addressed the technological level and is increasingly the cause of the high tension of the security dilemma. Furthermore, the nuclear arms race among developed countries poses a very serious threat to contemporary international security and poses a security dilemma phenomenon, including in the Southeast Asian region.

The implications of the Arms Race are an increase in defence and military spending. China's total military spending in 2000 was still around US\$ 10.3 billion, and this year it is estimated to reach around US\$ 231 billion. Data from the Stockholm International Peace Research Institute (SIPRI) shows that total military spending in all countries in the world in 2018 reached US\$ 1.69 trillion, equivalent to 2.2% of the world GDP. The ten countries with the largest proportion are America (36%), China (13%), Russia (4.1%), Saudi Arabia (3.3%), India (3.3%), France (3.3%), United Kingdom (2.9%), Japan (2.7%), Germany, (2.4%), and South Korea (2.2%).



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