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IMPACT OF BRI AND FOIP DEVELOPMENT ON NATIONAL SECURITY IN THREE TROUBLE SPOTS IN INDONESIA

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ABSTRACT

China's economic growth followed by its military progress has created imbalances in the Asia-Pacific region, especially Southeast Asia. At present, China's military is ranked third in the world, and even the China Sea is ranked second in the world. China is developing its *Belt and Road Initiative* (BRI) strategy to increase its geopolitical influence in the Southeast Asian region. The United States created America's Free and Open Indo-Pacific (FOIP) policy to counterbalance China's geopolitical influence. This study aims to determine the national security risks that occur in 3 touble spots in Indonesia as a result of the development of BRI and FOIP in the Southeast Asian region. This research uses the Analytical Hierarchy Process (AHP) Method approach. Based on the results of Risk Factor research consisting of threats, vulnerabilities and impacts showed that impact with a value of 0.396 was identified as the most important criterion followed by vulnerability with a value of 0.335 and threats with a value of 0.269. Sensitivity analysis showed minimal variation in ranking order across different scenarios, confirming the robustness of the proposed model. This analysis suggests that adjusting the weights and scores used in evaluating national security trouble spots can improve the decision-making process, as it shows the important role these factors play in risk ratings for each region.

Keywords: Belt and Road Initiative (BRI); Free and Open Indo-Pacific (FOIP); AHP

1. Introduction.

The Belt and Road Initiative (BRI) implemented by China and the Free and Open Indo-Pacific (FOIP) implemented by the United States (US) are two major geopolitical strategies aimed at expanding the influence of each country outside its territory (Shanahan, 2019). Both of these initiatives have a significant impact on the national security of countries in the Indo-Pacific region, including Indonesia. The U.S. and China have different visions for the region. The US vision, most recently articulated by the Trump Administration, was built on the axis of Asian rebalancing during the Obama Administration. This vision focuses on maintaining regional freedom, openness, security, and stability, as well as ensuring freedom of access to the common domain, in order to safeguard the interests of the US and its allies and prevent China from establishing an exclusive sphere of influence (Al, 2020).

Instead, China's vision is based on a China-centric model that involves expanding its power and influence in the region, fostering economic integration, and creating greater regional dependence on China.

Through the BRI, China seeks to expand infrastructure and economic investment to bring countries in the region under its leadership (Al, 2020). While not all U.S. and Chinese goals clash directly, the two major nations are seeking to advance different visions for the Indo-Pacific region to pursue their geopolitical goals.

One of the significantly affected regions is Southeast Asia, including Indonesia. Indonesia's strategic location, which sits at the crossroads of world maritime traffic between Australia and Asia and the Pacific and Indian Oceans, makes it key in the international production chain and a pivotal point in China's geopolitical ambitions. The Indo-Pacific region is expected by the U.S., Japan, India and Australia to increase collaboration with countries in the region to counter China's growing influence. Indonesia, as the largest country in Southeast Asia and the leader of ASEAN, seeks to balance the geopolitical influence of these two great powers (Pratiwi et al., 2021).

Indonesia faces major challenges in protecting its sovereignty from potential threats arising from its strategic position and abundant natural resources. The security implications of the BRI and FOIP policies are significant for Indonesia's national security, especially in three vulnerable points: the Natuna Sea, Papua, and Ambalat. These initiatives exacerbate existing geopolitical tensions and pose challenges to Indonesia's efforts to defend its sovereignty and secure its natural resources. The presence of foreign powers in these regions further complicates internal political issues and separatist aspirations, thus posing risks to Indonesia's territorial integrity (S. F. Putra, et al., 2022).

Research by Ali et al. (2021) shows that determining national jurisdictional boundaries often encounters obstacles, especially by island countries that have an interest in obtaining marine resources, both marine products such as fisheries and underwater products such as oil and gas. Cases such as Sipadan and Ligitan, Timor Gap, Ambalat Sea, and South China Sea trigger and increase tensions and conflicts over BRI and FOIP policies (Ali, et al., 2021).

Vulnerabilities arising from the development of BRI and FOIP in Indonesia include threats to maritime sovereignty and political instability in disputed areas. The Natuna Sea, which is rich in natural resources and geographically strategic, is often a point of tension between China and Indonesia. The assertion of territorial claims by China through the nine-dash line map triggered incidents between fishing boats and the Chinese coast guard and Indonesian authorities, potentially triggering small military conflicts in the region (Putra et al., 2022).

In Papua, the presence of foreign powers supporting the BRI fueled anti-foreign sentiment and strengthened separatist movements. Conflicts in the region may worsen due to great power competition that increases political and social instability. In Ambalat, the dispute with Malaysia over oil and gas exploration rights is also influenced by geopolitical dynamics involving BRI and FOIP, increasing the risk of diplomatic and military conflicts (Indriyani et al., 2022).

The impact of BRI and FOIP policies on Indonesia includes increasing geopolitical tensions and the risk of armed conflict in strategic areas. Tensions in the Natuna Sea could disrupt international shipping lanes and affect Indonesia's energy security, given the region's importance as a source of oil and gas. In Papua, conflict escalation can hinder economic development and political stability, while in Ambalat, a protracted dispute with Malaysia can disrupt bilateral and regional relations (Putra et al., 2022).

The influence of the Belt and Road Initiative (BRI) and the Free and Open Indo-Pacific (FOIP) covers a wide range of economic, political, security and social aspects. Economically, the BRI improves infrastructure and connectivity through investment, but also poses debt risks and economic dominance by China (Li, 2020).

FOIP, in contrast, encourages free trade and market-driven economic collaboration. In the political aspect, BRI strengthens China's political influence through infrastructure diplomacy, while FOIP strengthens US alliances in the region (Pradhan, 2021).

In terms of security, the BRI may raise concerns about China's military influence, while the FOIP focuses on maritime security and regional stability through military cooperation with US allies (Liff, 2019). BRI's social influence includes potential anti-foreign sentiment and concerns about sovereignty, while FOIP can encourage social and political reforms based on democratic values (Scott, 2020). The impact of these two initiatives on countries in the Indo-Pacific, including Indonesia, is complex, creating challenges and opportunities that require strategic navigation to maximize benefits and minimize risks.

Based on this phenomenon, in this study it can be seen that the increasing geopolitical competition between the US and China can fight for tension in the Indo-Pacific region and complicate diplomatic efforts and multilateral cooperation (Pradhan, 2021). This is an aspect that is considered less in-depth about the readiness of the long-term impact of BRI and FOIP on political and economic stability in recipient countries and limited in-depth research on how countries such as Indonesia can effectively navigate these dynamics (Ali, et al., 2021). Thus, several threats have emerged that disrupt national security due to dependence on foreign investment through BRI and increased risk of conflict and foreign intervention due to FOIP's militaristic approach (Putra et al., 2022).

To analyze Indonesia's national security risks related to BRI and FOIP, appropriate theoretical approaches include national security theory, geopolitical theory, and risk analysis theory. National security theory helps in understanding how states identify and respond to various threats to the sovereignty, territorial integrity, and safety of their citizens (Buzan et al., 1998). Geopolitical theory examines how geographical factors affect international politics and power relations between countries, which is relevant in understanding Indonesia's strategic position at the crossroads of world maritime traffic (Brzezinski, 1997). Risk analysis theory provides a framework for assessing and managing risk by identifying threats, vulnerabilities, and possible impacts (Kaplan & Garrick, 1981).

This research was conducted due to the significant strategic impact of the Belt and Road Initiative (BRI) and Free and Open Indo-Pacific (FOIP) on Indonesia's national security. These two initiatives have created complex dynamics in regional geopolitics, including increased tensions in strategic areas such as the Natuna Sea, Papua, and Ambalat. The presence of foreign powers in these regions increases risks to Indonesia's sovereignty and security and complicates efforts to maintain stability in the region.

The Analytical Hierarchy Process (AHP) method can be used in this study to analyze national security risks. AHP helps to determine the weight of each risk criterion based on the subjective assessment of experts. This approach allows the identification of the most critical risk scenarios and the development of effective mitigation strategies (Saaty, 1980).

This research is expected to provide a deeper understanding of national security risks arising from the implementation of BRI and FOIP in Indonesia, as well as help formulate effective mitigation strategies. By analyzing factors such as threats, vulnerabilities, and impacts, the study will help the Indonesian government and other stakeholders to identify hotspots and design concrete measures to mitigate those risks.

A key contribution of the research is to provide deeper insight into the geopolitical complexities in the Indo-Pacific region and their impact on Indonesia's national security. With a better understanding of the risks

and challenges faced, Indonesia can take more effective measures to protect its sovereignty and ensure regional stability.

2. Literature Review.

2.1. National Security

National Security will be a solid foundation in this research. According to Alan Collins in his research (Omoroje et al., 2021), National Security Theory is defined as "the need to maintain the survival of the nation state through the use of economic, military, and political force and the conduct of diplomacy." In elaborating this concept, focus will be given to these aspects, highlighting the role of the economy, military, and diplomacy in ensuring the stability and sustainability of the country.

The research will also involve an in-depth understanding of asymmetric warfare theory and communication theory, which are essential elements in the rapidly evolving context of national security. Asymmetric warfare theory highlights the strategies and tactics used by a significantly weaker side militarily to counter the stronger side, while communication theory considers the importance of effective communication in preventing and resolving conflicts.

2.2. Geopolitical

The definition of political geography is a science that studies the relationship between life and political activities with the natural conditions of a country or in other words studies *the states and it's natural environment* (Tampubolon, et al., 2022). In addition, political geography also studies the state as a political region that includes both internal geographical factors, and external, namely relations between countries (Syuryansyah &; Bethanila, 2022). The object and geography of politics is the analysis and relations between states and adaptation to environmental conditions within those countries. Thus political geography can be interpreted as "*Is the geography of states and provide a geographical interpretion of international relations*".

Geopolitics is the study of the relationship between geography, political power, and international dynamics. This theory attempts to understand how geographical factors such as location, topography, natural resources, and access to trade routes affect political decisions, security strategies, and power dynamics between countries on the global stage. Geopolitical theory involves analyzing the efforts of a country to expand its influence, protect its national interests, and interact with other countries in competition or cooperation to achieve certain political and economic goals (Erickson &; Strange, 2018; Limaye & Tellis, 2018).

2.3. Risk

Risk is the potential to gain or lose something of value. Values (such as physical health, social status, emotional well-being or financial wealth) can be gained or lost when taking risks resulting from an action or inaction, both foreseeable and unforeseeable. Risk analysis is to determine the magnitude of a risk which is reflected in the possibility and severity it causes. There are many techniques used to conduct risk analysis both qualitative, semi and quantitative. Qualitative risk analysis analyzes and assesses risks by comparing impact and opportunity parameters by comparing predefined matrices. Semiquantitative risk analysis has a method that is almost similar to quantitative methods (Raihan &; Fitriani, 2023). But the difference lies in the value / score that has been determined according to the risk. Quantitative risk analysis is carried out by determining

the value of each parameter obtained from the results of representative analysis such as statistical analysis, simulation, The parameters used in analyzing and assessing risk are threat, vulnerability, and impact.

A threat is something that can disrupt the activities of an organization (Kurnia et al., 2022). Emerging threats include military, economic, and sovereign aspects, which are potential and real in increasing tensions and conflict risks in the region.

Vulnerability analysis is used as: (1) a diagnostic tool to understand problems and factors that cause vulnerability, (2) a planning tool as a basis for prioritizing activities and the sequence of planned activities, (3) a risk measurement tool to assess specific risks, and (4) a tool to empower and mobilize vulnerable community groups. Vulnerability analysis is part of risk analysis that allows stakeholders to counter terrorism (Purwanto et al., 2021). The vulnerabilities are mainly related to infrastructure, economy, and politics, reflecting Indonesia's dependence on foreign investment and trade and the vulnerability of infrastructure to cyberattacks and sabotage.

Impact is the degree or magnitude of influence on other activities when unwanted activities occur. Impact (consequence) Assessment is carried out to assess the consequences/impact of the possibility of various identified threats to the facility under review. The assessment is based on criteria, including casualties, injuries, loss or damage to buildings/assets and Impact on the economic and/or socio-political welfare of the state/nation (Octavian et al., 2020b). Impact assessments in terms of the number of fatalities and potential number of injuries should take into account the worst-case scenario of full occupancy of the facility under review, economic, social, and environmental aspects, which are detrimental to economic growth, social stability, and environmental sustainability. The criteria for assessing the loss of damage to buildings/assets must consider the cost of building construction. The assessment of the loss of primary care must be in accordance with the recovery period for the rebuilding of buildings/assets and/or replacement of supporting equipment that determines the overall operation of the facility (Chang et al., 2021).

The analysis is a reflection of the complex risks affecting Indonesia's national security and demands a comprehensive and adaptive response from the government and other stakeholders. The nature of these threats, vulnerabilities, and impacts varies from potential, reflecting future possibilities, to real, existing or ongoing. This risk analysis has a proactive nature, with the aim to identify, evaluate, and mitigate risks associated with the implementation of BRI and FOIP, as well as to help formulate effective mitigation strategies in safeguarding Indonesia's national security.

Risk analysis can be written with a risk formula (Chang et al., 2021):

Risk = *Threat* (T) x *Vulnerability* (V) x *Impact* (I)

Chang et al (2021), explained that threats will exploit vulnerabilities that cause impact on the system, thus making it a risk to an organization. Therefore, if no threats, vulnerabilities and impacts are found, then there is no risk.

2.4. Methodology

2.4.1. Data Collection Techniques

This study used three data collection techniques, namely in-depth interviews, observation, and documentation studies to obtain primary and secondary data. Primary data is obtained directly from the place and subject of research, while qualitative data, according to Sugiyono (2020), consists of words and actions. The interview technique involves systematic questions that are asked openly to sources who understand the purpose

of the interview. Field observations were conducted to accurately document data and evidence, particularly in identifying potential risks in three vulnerable areas in Indonesia: North Natuna Sea, Ambalat, and Papua. The questionnaire, which is divided into four parts, is used to collect respondents' information, provide charging instructions, and assess risk through predetermined dimensional weights.

2.4.2 Content Validation Index

The Content Validity Index (CVI) stands as an important method for assessing the validity of instrument content, which is widely recognized for its applicability across various research domains. It measures the extent to which experts agree on the relevance or representativeness of an instrument item, offering insight into the validity of its content both at the item level (Item-level CVI or I-CVI) and across instruments (Instrument-level CVI). CVI calculations are supported by expert evaluations of each item, based on the relevance or representativeness of its content (Almanaksreh, Moles and Chen, 2018).

In assessing content validity, this study used item-level content validity index (I-CVI) and scale-level average content validity index (S-CVI/Ave). S-CVI/Ave is determined by dividing the number of I-CVI scores by the number of items. An S-CVI/Ave ≥ 0.8 is considered acceptable, while an S-CVI/Ave ≥ 0.90 indicates excellent overall content validity. I-CVI, on the other hand, is calculated as the number of experts assessing an item ≥3 divided by the total number of experts, with an I-CVI of ≥0.78 acceptable. The literature shows that for a new assessment instrument to be considered valid, it must achieve a total CVI of ≥0.90 or 90% and an I-CVI of ≥0.78 or 78% (Marisa, 2021).

2.4.3. Analytical Hierarchy Process (AHP)

AHP was developed by Saaty (2013) as a model for solving decision problems. AHP ensures that quantitative and qualitative variables can be evaluated together taking into account the priorities of decision makers. The stages in the AHP process can be summarized as follows:

a. Perform criteria definition

Identify risk analysis criteria that affect three *trouble spots* in Indonesia as a result of the development of BRI and FOIP. Each risk analysis criterion will be formed by a number of sub-criteria that are owned as an assessment of risks that can occur.

b. Formulate objectives, criteria, sub-criteria and alternatives in the form of a decision hierarchy

Compiling objectives, criteria, sub-criteria and alternatives in accordance with the research discussion, where in this study a number of risk analysis criteria were compiled that affect three trouble spots in Indonesia as a result of the development of BRI and FOIP which can also be influenced by sub-criteria so as to facilitate the assessment of the criteria studied.

c. Provide a current scale assessment on a criterion pairwise comparison matrix

Assess each criterion and sub-criteria of risk analysis through questionnaires with a scale of 1-9 in accordance with the conditions of the research object, namely three Indonesian trouble spots (North Natuna Sea, Ambalat Block and Papua).

d. Testing for consistency against comparisons between criteria

Perform CI and CR tests with the formula:

$$CI = (\lambda max - n) / (n - 1)$$

Where:

n = number of elements

$$CR = CI / RI$$

Where:

CR = *Consistency Ratio*

CI = *Consistency Index*

RI = *Random Consistency Index*

If the value is more than 10%, the judgment assessment must be corrected, but if the consistency ratio (CI/RI) is less or equal to 0.1, the calculation results can be declared correct.

Table 1. Random Index Value

Matrix Value (n)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Random Index (RI)	0,00	0,00	0,58	0,90	1,12	1,24	1,32	1,41	1,45	1,49

Source: Saaty (2013)

e. Perform ranking

After CI and CR measurements can be obtained weight values for the assessment of criteria and risk analysis sub-criteria, then ranking can be carried out from the weight values obtained. Thus, it can be known the large or small risks that occur in three Indonesian trouble spots (North Natuna Sea, Ambalat Block and Papua) based on the criteria and sub-criteria studied.

2.4.4. Conceptual Framework

This research was conducted in three *trouble spots* in Indonesia, precisely in the North Natuna Sea, Ambalat and Papua. This study aims to determine national security risk factors in *three Indonesian trouble spots* as a result of the development of BRI and FOIP in the Southeast Asian region, focusing on this as case research and for the development of strategic initiatives. The determination of risk factors was determined through a study of previous research literature that has been conducted by Octavian, *et al* (2020).

This study uses a statistical descriptive qualitative approach that is used as a measure and describes national security risks that can occur using the *Analytical Hierarchy Process* (AHP) method.

The analysis begins with the application of the AHP method to assess risk factors and set priorities for addressing national security. As shown in the research of Octavian, *et al* (2020), along with sensitivity analysis to evaluate the reliability of results based on the weight of criteria (Axelsson, *et al*., 2021).

This study involved 10 experts based on established criteria in conducting assessments through questionnaires to collect data on criteria using a scale of 1-9 for the AHP method. The experts involved were mostly senior officials at Indonesia's three *trouble spots* .

The criteria for expert selection are set as follows (Fletcher &; Griffiths, 2020; Nguyen, *et al*., 2022; Khalilzadeh, *et al*., 2020):

a. Rank; Be at the level of decision-making, planning in national security operations.

b. Position; A position that shows the duties, responsibilities and authority held.

c. length of service; Minimum 10 years of service experience and experience in maritime intelligence operations.

d. Practitioners/Academics; Understand the problems of maritime areas in Indonesia's three *trouble spots* (North Natuna Sea, Ambalat and Papua).

e. Distribution of Work Units; Have served or carried out operations in the North Natuna Sea, Ambalat and Papua areas.

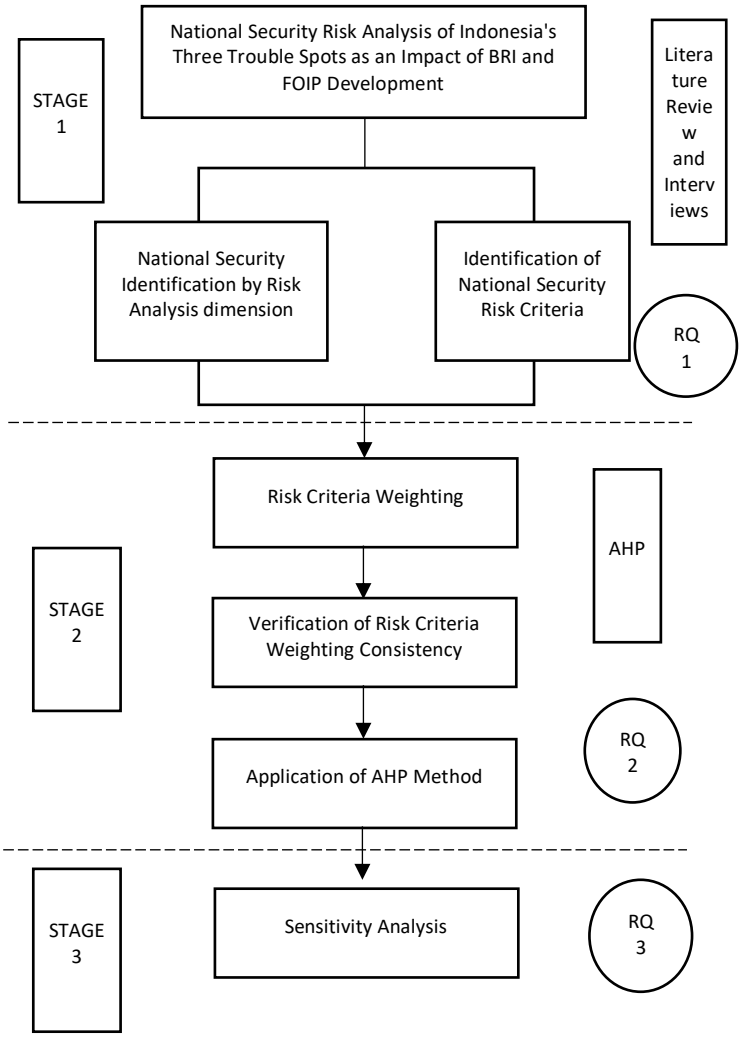

Figure 1. Conceptual National Security Risk Analysis Framework

Source: Son, *et al* (2023); Singh & Cage (2019); Octavian, et al (2020)

In this study there are several stages to achieve the expected goals through several research steps as follows:

Step 1 in this study identifies national security risks by conducting a literature study in understanding the dimensions and factors of national security risk relevant to the three trouble spots in Indonesia and considering them according to the impact of the development of BRI and FOIP. In identifying the dimensions and risk factors, this study obtained three main components of risk in accordance with Octavian, *et al* (2020) research, namely threat, vulnerability and *impact*.

Step 2 in this study involves the application of the AHP method by calculating the weight of risk criteria using AHP which helps in structuring the problem and decision making by comparing the criteria in passing.

After that the weight of the criteria is determined, the consistency of the assessment is checked to ensure the consistency of the data. Then, the AHP method is used to conduct national security risk ratings. The AHP method is used to determine the weight of the criteria.

Table 2. Assess the level of risk analysis of each criterion

Likert Score	***Risk Analysis Level***		
	Threat	***Vulnerability***	***Impact***
5	*Very High*	*Very High*	*Catstropic*
4	*High*	*High*	*Significant*
3	*Medium*	*Medium*	*Moderate*
2	*Low*	*Low*	*Minor*
1	*Very Low*	*Very Low*	*Insignificant*

(Octavian et al., 2020; Putra et al., 2023)

Table 3. Risk Assessment Level

AHP Scale	Definition	Description	Likert	Probability Value	Risk Level	Colour
1	Equally Important	Two elements contribute equally to the goal	1	0 – 0,2	Very Low	
3	A Little More Important	Experience and assessment favor one element slightly over another	2	0,21 – 0,4	Low	
5	More Important	Experience and assessment strongly favor one element over another	3	0,41 – 0,6	Medium	
7	Very Important	An element is highly favored over others and its dominance is demonstrated in practice	4	0,61 – 0,8	High	
9	Absolutely More Important	Evidence that supports one activity over another is the highest level of affirmation	5	0,81 – 1,0	Extreme	
2,4,6,8	Middle Value	When in doubt between two adjacent AHP values				

Source: Sudarsana (2021); Liu, et al (2012); Son, et al (2023)

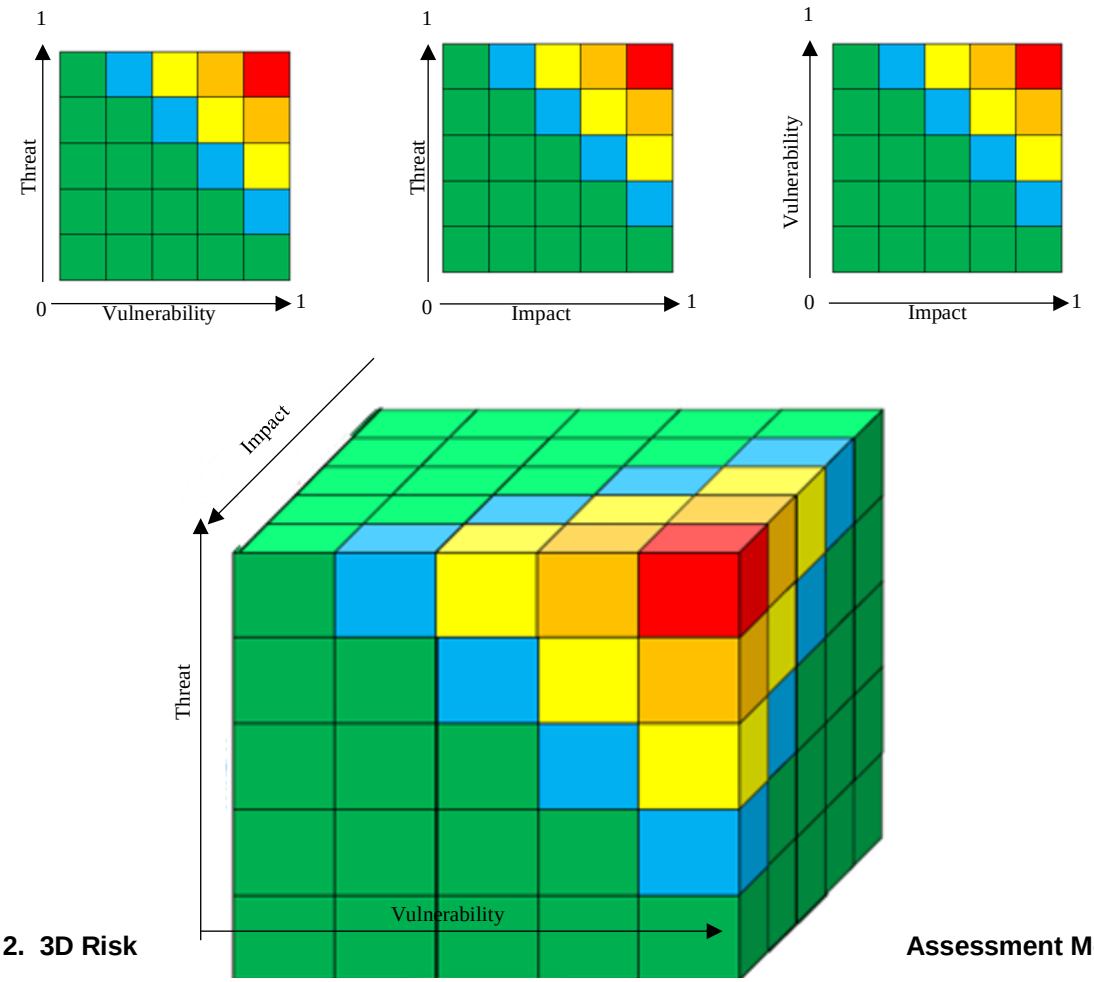

Figure 2. 3D Risk Assessment Model

Source: Processed through Sudarsana research (2021); Liu, et al (2012); Son, et al (2023)

Step 3 will conduct a national security risk sensitivity analysis. The result of implementing the AHP is a national security risk rating that indicates risk priority based on predetermined weighting and assessment criteria. Next, a sensitivity analysis is performed to evaluate how changes in the weighting of criteria or baseline assumptions affect the outcome of the risk rating. This analysis is important to ensure that the decisions taken are robust and can withstand a variety of scenarios. This systematic process results in a structured, data-driven risk rating that can be used by policymakers to improve Indonesia's national security.

3. Result and Discussion

3.1. Identification of impact factors and development strategies

This section outlines the systematic approach taken to determine risk factors: Threat, Vulnerability and Impact. Determination of risk dimensions and indicators based on research by Octavian, *et al* (2020).

Based on these three criteria, researchers involved 10 experts or experts in the maritime field who are experienced in the three *trouble spots of* Indonesia to take part in the research survey through the distribution of questionnaires.

The distribution of questionnaires was carried out through Google Form to 10 experts. This questionnaire outlines the research and its objectives and covers three dimensions and 17 risk indicators utilizing a Likert scale of 1 – 5 for assessment. The estimated time to complete the questionnaire is 10 – 15 minutes.

After taking the questionnaire, researchers will validate the I-CVI and S-CVI data as proof that all dimensions and indicators are very important to build an assessment tool. The S-CVI score is acceptable if it has a value of ≥ 0.8 and I-CVI has a value of ≥ 0.78 (Lakmini, *et* al.2023).

Table 5. Data Validity

No	Dimension	Items	Average	I-CVI	UA	Result
1	***Threat*** **(Threat)**	*Existence*	4.00	1,00	1	Accepted
		Terror Ability	3.50	1,00	1	Accepted
		Historic	4.20	1,00	1	Accepted
		Intensity	3.50	1,00	1	Accepted
		Type of Planning Activities	3.60	1,00	1	Accepted
		Target Strategies	3.20	1,00	1	Accepted
		Environmental Safety	3.60	1,00	1	Accepted
2	***Vulnerability*** **(Vulnerability)**	*Location*	3.60	1,00	1	Accepted
		Accessibility	3.60	1,00	1	Accepted
		Security Adequancy	3.80	1,00	1	Accepted
		Availability	3.40	1,00	1	Accepted
		Vulnerability	3.40	1,00	1	Accepted
3	***Impact*** **(Impact)**	*Insignificant*	3.30	1,00	1	Accepted
		Minor	3.30	1,00	1	Accepted
		Moderate	3.40	1,00	1	Accepted
		Major	3.70	1,00	1	Accepted
		Catastropic	3.80	1,00	1	Accepted
Total				16,9	16	
S-CVI/AVE				0,994		Accepted
S-CVI/UA					0,941	Accepted

Utilizing the results of the validity of this data, the AHP approach uses this data as the basic input for element creation in a paired comparison matrix. Strategies for alternative approaches, as obtained from based on research objectives that emphasize risk factors that can be used to improve national security in Indonesia's three *trouble spots* the impact of BRI and FOIP in the Southeast Asian region in the North Natuna, Ambalat and Papua Sea sectors. This requires strengthening the ability of the Indonesian Navy and related entities to conduct national security enforcement operations to address maritime crime and focusing on improving

maritime infrastructure and connectivity in coastal and border areas to facilitate logistics routes (Kukuh, *et al*., 2019).

3.2. AHP Analysis

The following steps involve organizing a hierarchy that includes objectives, criteria and sub-criteria/strategies. This structure was developed based on risk assessment factors obtained through the results of data validity from three dimensions and 17 indicators identified through a literature review in the research of Octavian, et al (2020).

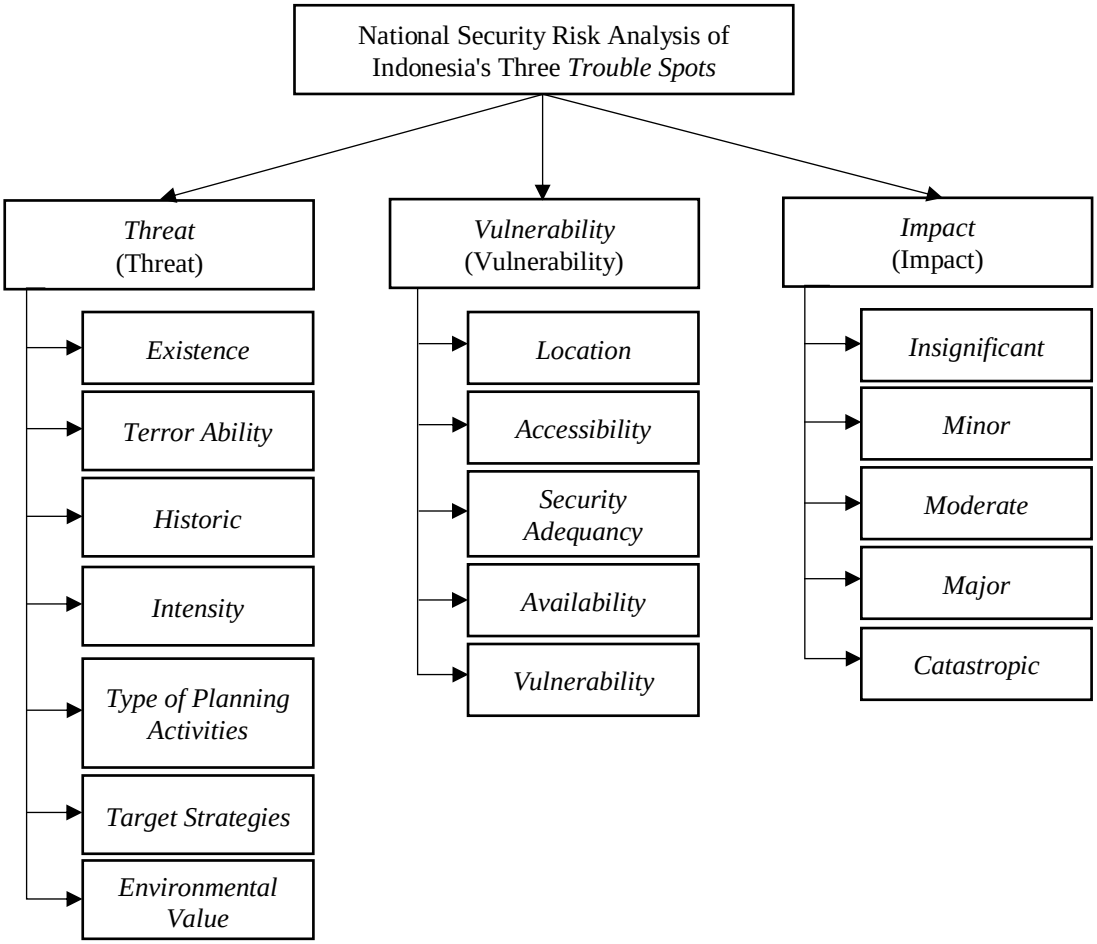

Figure 3. Risk Criteria and Sub Criteria

Identification of risk factors or criteria is essential for conducting risk research analysis in achieving national security. To this end, building a hierarchical structure is an important function in identifying and establishing correlation relationships between these risk factors. Specifically, the threat factor includes seven subfactors, the vulnerability factor includes five subfactors and the impact factor includes five subfactors.

Table 6. Hierarchical Weighting Results

Criterion	Weight Value	Rating	Sub Criteria	Weight Value	Rating
Threat	0.269	2	Existence	0.144	12
			Terror Ability	0.128	15

Criterion	Weight Value	Rating	Sub Criteria	Weight Value	Rating
			Historic	0.167	9
			Intensity	0.108	17
			Type of Planning Activities	0.201	5
			Target Strategies	0.134	14
			Environmental Safety	0.117	16
Vulnerability	0.335	3	Location	0.273	1
			Accessibility	0.243	2
			Security Adequancy	0.165	11
			Availability	0.183	8
			Vulnerability	0.136	13
Impact	0.396	1	Insignificant	0.212	4
			Minor	0.230	3
			Moderate	0.200	6
			Major	0.191	7
			Catastropic	0.167	10

After determining the significance of risk factors for a valid questionnaire, it can be found that the consistency index (CI) value of 0.0 and consistency ratio (CR) 0.0 are achieved in 3 main criteria and 17 assessment sub-criteria. The results showed that the questionnaire met the standard consistency criteria and was valid for use in this study. The relative importance of these key factors or criteria, important for the analysis of risk assessment to national security, according to table 6. The results of the AHP analysis show that the importance of the impact criterion with a value of 0.396 is identified as the most important criterion in analyzing national security risks in three Indonesian *trouble spots*. Then the criteria ranking is followed by vulnerability with a value of 0.335 and threat with a value of 0.269. This result can be used as one of the quantitative values in formulating national security strategies on Indonesia's three trouble spots as a result of the development of BRI (Belt and Road Initiatives) and FOIP (Free Open Indo-Pacific) with a regional focus on the North Natuna Sea, Ambalat and Papua.

Among the 17 sub-criteria of assessment, it can be seen that five sub-criteria are considered the most important with a greater value, namely location value 0.273, accessibility value 0.243 raises the dominance of the highest value which indicates the importance of geographical location and accessibility factors in addressing security challenges in the specified trouble spots, where infrastructure expansion and activities related to BRI and FOIP are focused.

Then, minor values of 0.230 and insignificant values of 0.212 highlight the important role of elements – small but impactful elements that can accumulate into significant threats to national security.

Furthermore, the type of planning activities valued at 0.201 is considered important because it affects the effectiveness of strategies designed to deal with complex challenges that arise.

The correlation between these sub-criteria highlights that in overcoming the challenges faced by cofleets related to BRI and FOIP, it is important to pay attention to location, accessibility, minor and insignificant impacts along with threats to the type of planning activities carried out. This reflects the complexity of the

national security challenges faced, where various aspects must be considered and analyzed in order to implement effective national security defense.

3.3. Sensitivity Analysis

Variable sensitivity analysis is needed to find and determine the variables that have the greatest degree of influence on modeling. From the model made, it is known that there are main criteria for risk analysis in national security, three *Indonesian trouble spots* as a result of the development of BRI (*Belt and Road Initiatives*) and FOIP (*Free Open Indo-Pacific*) with a regional focus on the North Natuna Sea, Ambalat and Papua. Of these three criteria, the highest to lowest risk can be known through the AHP analysis of these criteria as follows:

a. Impact Risk Analysis with a value weight of 0.396

b. Vulnerability Risk Analysis with a value weight of 0.335

c. Threat Risk Analysis with a value weight of 0.269

To determine the variables that have an influential contribution to the national security of Indonesia's three *trouble spots*, a classification of the 3 risk analysis criteria was made. The following is a sensitivity analysis of the results of national security modeling simulations of three *Indonesian trouble spots*.

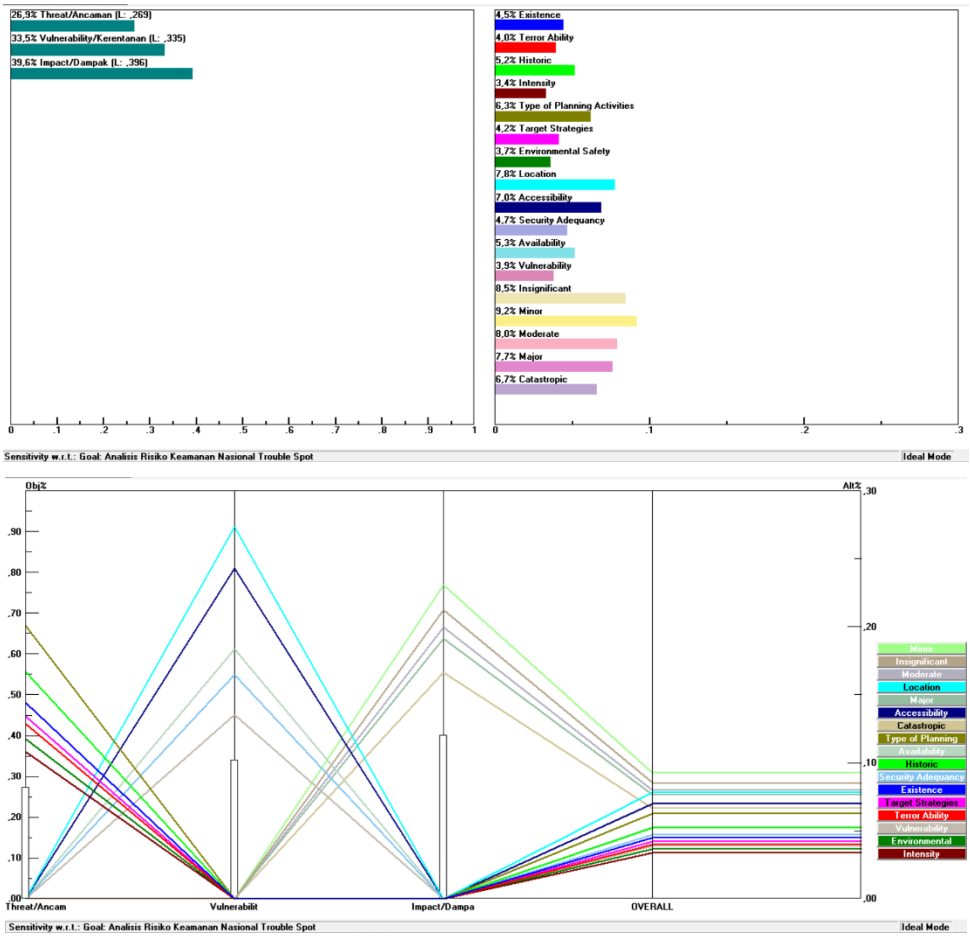

Figure 0.1 Sensitivity Analysis Results

Source: Primary Data Processed (2024)

The results of the expert *choice software* sensitivity analysis in the AHP analysis were used to describe the prioritization for all criteria and sub-criteria in the national security risk analysis *trouble spot*. Based on the graph and percentage, the overall sensitivity analysis shows the highest criteria on the impact risk criteria . Furthermore, the final result in the form of risk sub-criteria which will be able to become a top priority in knowing the highest risk factors that cause national security risks is known to be found in the impact sub-criteria , namely *minor*.

AHP sensitivity analysis through *expert choice software* can also be used to determine the possibility or forecast of changes in the conditions of each criterion and sub-criteria if there is a change in value, where this change can change the prioritization of national security risk analysis in *trouble spots*. From the sensitivity chart image above, it shows that if there is a change in weight in the criteria, it will not affect the determination of national security risk sub-criteria. So that the risk that is the most important basis for maintaining national security *trouble spot* is the risk of *impact* (impact) with sub-criteria (*minor*).

4. Conclusion

This study discusses the analysis of National Security Risk in Three Indonesian Trouble Spots as an Impact of BRI and FOIP Development in the Southeast Asia region utilizing the *Analytical Hierarchy Process* (AHP) approach, this method has proven to be an effective and efficient way to identify key factors and assess and analyze national security risks supported by research; Alizadeh et al (2021); Putra et al (2023) and Octavian et al (2020).

This study facilitates balancing and comparison of risks from various elements of national security in three *trouble spots*, while building a database enriched with factual data and supporting the identification and comparative analysis of 17 sub-factors or sub-criteria of risks raised through Octavian et al's (2020) research. This adoption of the risk research model by Octavian et al (2020) may provide important advantages of this analytical approach. When applied to Indonesia's maritime domain, the study reveals advances in national security defense analysis models compared to other methodologies. In terms of risk factors, this study identified three main factors or criteria namely; *Threat* (0.396), Vulnerability (0.335) and Impact (0.269) with *location* and *accessibility* as the most significant sub-factors or sub-criteria in risk assessment.

Inconsistencies in this study are caused by differences in data sources between backgrounds based on general information and research results that use quantitative data from experts. This indicates that mitigation and response efforts have been carried out by the Navy are effective in reducing the level of national security risk in the three areas studied.

Sensitivity analysis shows that the North Natuna Sea and Papua have a higher sensitivity to changing conditions, especially in terms of vulnerability and threat initially. On the other hand, Ambalat shows higher stability in terms of vulnerability and impact, but is sensitive to threats. This analysis is important for mitigation and response to national security threats, vulnerabilities, and impacts in each trouble spot area.

Limitations &; Future Research

The study acknowledges a number of research limitations that pave the way for future research. First, the study depends on the availability and quality of quantitative data available at the time the study is conducted, which can affect the accuracy of the risk analysis. Second, the focus of research on three main

trouble spots, namely the North Natuna Sea, Ambalat, and Papua, can ignore potential risks in other regions that are also affected by BRI and FOIP. Third, the risk analysis in this study includes threats, vulnerabilities, and impacts, but there are still other factors such as economic, political, socio-cultural and environmental that may affect national security that are not included in this analysis. Fourth, although the AHP method was used in this study, it also has its own limitations, such as sensitivity to the weights set in the AHP. Lastly, direct involvement from multiple stakeholders may not be optimal in this study, which could affect a more comprehensive understanding of national security risks. Awareness of these limitations is important to improve the quality of future research in this field and provide a stronger foundation for understanding and addressing national security risks associated with BRI and FOIP in Indonesia.

Through these limitations, researchers provide a number of research suggestions to researchers in the future to be able to expand the scope of data collected, this can include the use of diverse virgin sources and involve more respondents or experts in research. Future researchers may also explore and compare the various analytical methods available such as SWOT, Relationship Analysis and others to ensure that the findings obtained are the most relevant and reliable for research. Then, future researchers can improve risk analysis models by expanding on additional factors that may affect national security, such as political, economic and social dynamics at local, regional and global levels. Furthermore, future researchers can also explore in depth the impact and implementation of geopolitical strategies such as the *Belt and Road Initiative* (BRI) and *Free and Open Indo-Pacific* (FOIP) on countries in the Southeast Asian region, including Indonesia. This can help in identifying and responding to future changes related to national security and geopolitics.

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