

The Implementation of Indonesian Navy's Hydrography and Oceanography Center in Supporting the Government Vision to Realize Indonesia as the Global Maritime Fulcrum

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Abstract

The Global Maritime Fulcrum (GMF) is a strategic idea that is realized to ensure inter-island connectivity, development of the shipping industry and fisheries, and focus on maritime security. The implementation of Pushidrosal's tasks, roles, and functions in supporting the government's vision to realize Indonesia as GMF is inseparable from problems that result in the non-optimal role of Pushidrosal as the National Hydrographic Organization. The dominant problems that prevent Pushidrosal include limited, human resources, infrastructure facilities only located in Jakarta, vessel and equipment survey owned by Pushidrosal. This research aims to analyze the role, duties, and functions of Pushidrosal in supporting the government's vision to realize Indonesia as GMF. The research was conducted using qualitative descriptive methods which are based on the implementation theory of George C. Edwards III. The results of this study indicate that the implementation of Pushidrosal's role in supporting the government's vision to realize Indonesia as GMF is not in doubt. This means that the role and application of hydrography strongly support the government's vision of realizing Indonesia as GMF. In order to carry out the duties of the national hydrographic institution more optimally, it is necessary to increase capabilities in terms of human resources based on its qualifications in the sector of hydrographic, infrastructure, budgeting and addition of Hydrographic and Oceanographic Units are needed in three regions, namely West, Central and East, and harmonious cooperation between the Ministries and Institutions (K/L) and stakeholder.

Keywords: Pushidrosal, National Hydrographic Institute, Global Maritime Fulcrum

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1. Introduction

The Republic of Indonesia is the largest island archipelagic state in the world which is in a cross-position between two continents and two oceans. It has territorial waters and its jurisdiction of 6.4 million Km² (Pushidrosal-BIG, 2018). The territorial waters and jurisdictions of the Republic of Indonesia very wide-reaching more than 70% of the territory of the Republic of Indonesia. It implicates the sea between islands to become strategic sea lanes for international shipping traffic or as Sea Lines of Communications (SLOCs) and Sea Lines of Oil Trade (SLOT) for marine users.

The geographical constellation of Indonesia as an archipelago, there is a crossing of a busy and strategic international shipping lane, namely the Malacca Strait and Sunda Strait shipping lanes. This shipping channel has strategic value as an energy lifeline for the East Asia region and three major industrial countries namely China, Japan and South Korea as well as for world trade transportation. The existence of these two world shipping lanes requires the availability of sea navigation safety guarantees for sea users crossing them, including in the three Indonesian Archipelagic Sea Lines (ALKI) as shipping lanes which are designated as crossing access to the Indonesian archipelago. Navigation and shipping safety guarantees which are the obligation of Indonesia as a coastal country are to provide navigation and navigation facilities such as Navigation Charts and Electronic Navigation Charts (ENC) and other nautical publications such as Indonesian Seafarers' News, Tidal Lists, The list of Tidal Flows, Nautical Almanacs and so on is part of the duties and responsibilities of the Indonesian Hydrographic Institute which in this case is the Center for Hydrographic and Oceanographic.

At the East Asia Summit in Naypyidaw Myanmar, on Thursday, November 13th, 2014, President Jokowi conveyed the concept of the marine sector called the Global Maritime Fulcrum (GMF) (Bisnis.com, 2014). According to President Jokowi, the development of the marine sector became the focus of Indonesia in the 21st century and emphasized 5 (five) main pillars in the GMF, as follows:

- a. Maritime Culture: rebuilding the Indonesian maritime culture through the redefinition of the national identity of Indonesia as a maritime nation.
- b. Maritime economy: managing and preserving the maritime resources of the nation.
- c. Maritime connectivity: prioritizing the development of maritime infrastructure, construction of infrastructure and transportation infrastructure, and marine tourism.

- d. Maritime Diplomacy: optimizing soft power in dealing with regional threats and increasing bilateral and multilateral maritime cooperation.
- e. Maritime security: preparing hard power to strengthen Indonesia's maritime defense forces in the security efforts of Indonesia.

The existence of Hydrographic and Oceanographic Center, Indonesian Navy or Pushidrosal as the National Hydrographic Organization has contributed to the sector of hydrography from at the time the Dutch East Indies to today. Pushidrosal tasks are to organize the development of Hydrographic & Oceanographic that include surveys, research, marine cartography, the publication, the application of the marine environment and the safety of shipping navigation for military and for public use in all Indonesian waters ('Presidential Regulation of the Republic Indonesia Number: 10/2010 concerning organizational structure of the TNI', 2010). Pushidrosal has 2 (two) functions, i.e (1) military function, as a provider of data and information to the defense and security, (2) civil function, as a provider of data and information for the safety of shipping and other public interest ('Presidential Regulation of the Republic Indonesia Number: 62/2016 concerning change the Presidential Regulation of the Republic Indonesia Number: 10/2010 concerning organizational structure of the TNI especially Indonesian navy', 2016).

Based on the roles of Pushidrosal, the problem can be formulated as follows how the implementation of Pushidrosal's role in providing Hidros data and information to support the government's vision in realize Indonesia as a GMF. The basic argument of this paper is the elaboration of the basic aspects of hydrography, there for the GMF can become the foundation and hope of Indonesia's future.

2. Methodology and Theory

This research seeks to determine, find, collect, process and analyze factors that determine or influence the implementation of Pushidrosal's role in supporting the government's vision to realize Indonesia as GMF. The collection of data obtained from observation, documentation, interviews and joint/triangulation (Sugiyono, 2007). The main sources of this research are relevant and credible informants and occupy positions related to Pushidrosal's role, duties, and functions as a National Hydrographic Organizations. The place or locus of the research is the Hydrographic and Oceanographic Center Indonesian Navy, North Jakarta.

The method used in this study is descriptive qualitative, phenomenological. The informants are involved or are involved are stakeholders in the construction of Hydrography in Pushidrosal. The theory used to answer the research problem formulation is George C. Edwards III, Edwards explained that there are four factors that play an important role in achieving successful implementation or failure of policy implementation, namely communication, resources, disposition, and bureaucratic structure (Edward III, 1980).

3. Analysis and Discussion

The implementation of Pushidrosal's role as the National Hydrographic Organization is responsible to provide Hidros data and information in Indonesian territorial waters and jurisdiction. They have to be accurate, current, and guaranteed the availability to support national sea space utilization in order to realize Indonesia as GMF, as follows:

3.1 Communication.

Distribution of good communication will be able to produce a good implementation as well. Problems often occur in the distribution of communication that is a misunderstanding (miscommunication) caused by the many levels of bureaucracy that must be passed in the communication process, so that what is expected to be distorted in the middle of the road.

Based on Navy Chief of Staff Regulation Number 16/2016, Navy Chief of Staff Regulation Number 7/2018, and Navy Chief of Staff Regulation number 14/2018, Pushidrosal organization consists of echelons of positions. The communication system between the staff implementing the policy can be seen in Figure 1 below (Pushidrosal, 2016):

- a. Communication transmission. Communication transmission can be seen from the coordination among the units in the Pushidrosal which have been running well with an understanding of the duties and authority of each unit in accordance with the organization of the tasks and procedures of Pushidrosal.
- b. Clarity of communication. Implementation Pushidrosal role is clearing observed with the establishment of a strategic policy design development Pushidrosal posture until 2037 as implementation guidance to realize Indonesia as GMF.
- c. Communication consistency. The implementation of communication consistency is observed in the elaboration of tasks, roles, and functions of Pushidrosal by prioritizing aspects of the GMF pillars in carrying out its main tasks.

3.2 Resources

a. Human Resources.

The main resource in implementing policies is staff or employees (street-level bureaucrats). Failures that often occur in policy implementation, one of which is caused by staff/employees who are inadequate, insufficient, or incompetent in their fields. There are obstacles in the availability of personnel with Hydrographic and Oceanographic qualifications. This can be seen in the fulfillment of the Pushidrosal personnel list. Pushidrosal personnel has only reached 57% of the list of Pushidrosal personnel. Inadequate quality and quantity of personnel, in carrying out their duties. Pushidrosal is supported by human resources who have the capability in the field of hydro-oceanographic surveys and charting a limited number of personnel. The current strength of personnel at Pushidrosal still does not meet the the list of Pushidrosal personnel. The ability of Hydrographic Surveyor personnel is inadequate, the ability of Cartography is still very limited and the ability of special specialization in the field of military hydrographic is still lacking. This results in the suboptimal quality of data and maps to support military and public interests.

b. Budgeting.

Operation of surveying and charting for military purposes, Pushidrosal receives a budget from the Navy and Ministry of Defense, however, to support the public interest, Pushidrosal does not receive a special allocation from the government.

c. Facilities.

Physical facilities are an important factor in policy implementation. The implementer may have sufficient, capable and competent staff, but without supporting facilities (facilities and infrastructure) the implementation of the policy will not succeed. At present Pushidrosal has physical facilities and infrastructure to carry out tasks in the form of a three-story office building, Hydro-Oceanographic survey equipment, and survey vessels, all of which are located in Jakarta. Faced with the vast Indonesian waters, the facilities and infrastructure that are currently owned are still inadequate in the face of the duties, roles, and functions of Pushidrosal as a National Hydrographic institution.

d. Authority: the regulation is:

- 1) Presidential Regulation of the Republic Indonesia Number: 10/2010 concerning the organizational structure of TNI.
- 2) Presidential Regulation of the Republic Indonesia Number: 62/2016 concerning change the Presidential Regulation of the Republic Indonesia Number: 10/2010 concerning organizational structure of the TNI especially Indonesian navy.
- 3) Regulation of the Commander Indonesian Military Number: 32/2016 concerning Pushidrosal Organization and Duties.
- 4) Regulations Indonesian Navy Chief of Staff Number:16/2016 concerning Change of name/organization of Dishidros Pushidrosal.
- 5) Organization and Procedure Hydrographic and Oceanographic Center, Indonesian Navy.

3.3 Bureaucracy Structure

The implementation of complex policies requires the cooperation of many parties. When the bureaucratic structure is not conducive to the implementation of a policy, this will cause ineffectiveness and hinder the implementation of the policy.

Pushidrosal as one of the main commands of the Navy has the task of carrying out the development of hydro-oceanography (hidros) to support the interests of the TNI and civilian interests and prepare data and information on defense field at sea in order to support the Navy's main tasks ('Regulations Indonesian Navy Chief of Staff Number:16/2016 concerning Change of name / organization of Dishidrosal to Pushidrosal', 2016). The task obligates Pushidrosal to provide hydrographic data and information for military and civilians in Indonesian territorial waters and jurisdiction which has to be accurate, up to date, and available to support sea space utilization in order to realize Indonesia as GMF.

3.4 Disposition/Attitude

According to Edward III stated, "tendencies or dispositions are one of the factors that have important consequences for effective policy implementation". If the implementers have a positive tendency or attitude or support for the implementation of the policy, there is a high possibility that the policy implementation will be carried out in accordance with the initial decision.

The Disposition Factor on Pushidrosal's role in supporting the government's vision in realizing Indonesia as a PMD has very high support, given the importance of Pushidrosal's role as a national hydrographic institution. The attitude of the leaders in Pushidrosal and the Implementing Command understood and comprehended the importance of the Hydrographic and Oceanographic aspects to support the government's vision in realizing Indonesia as GMF.

3.5 Obstacles and Supporting Factors

This research obtained findings the factors that affect the implementation of Pushidrosal's role in supporting the government's vision to realize Indonesia as GMF, as follows:

- a. Obstacle factors. The dominant inhibiting factor in the analysis of the implementation of Pushidrosal's role in supporting the government's vision to realize Indonesia as GMF was faced with a very large task, role, and function covering the entire territory of the Republic of Indonesia, as follow:
 - 1) Pushidrosal personnel at this time does not meet the List of Personnel (DSP). The ability of Hydrographic Surveyor personnel is inadequate, the ability of Cartography is still very limited and the ability of military the specialists hydrographic is not sufficient. This results in the quality of data and charts to support military and public interests.
 - 2) Upgrading the organization to Pushidrosal to the level of a two-star main command with DSP 2162 personnel makes the Pushidrosal building not yet be able to provide adequate office space Pushidrosal. This resulted in limited office facilities to support some of the functions of Pushidrosal as the National Hydrographic Institute.
 - 3) Spacecraft floating in Pushidrosal amount is less, the condition is old, the sailing endurance is short, the fuel is wasteful and does not have a special ship for hydro-oceanographic surveys and marine research for deep-sea capability or ocean-going. This results in the inability of conducting hydro-oceanographic surveys and marine research conducted by Pushidrosal for all Indonesian waters so that the preparation of data and maps to support military and general interests is incomplete which affects the Pushidrosal's role in supporting Indonesia as GMF.
 - 4) Survey and laboratory equipment in Pushidrosal is currently inadequate, and some equipment has not yet followed the latest hydro-oceanographic survey technology. This has an impact on the lack of support for survey operations which results in inaccurate and optimal data generated to support the Indonesian program as GMF.
 - 5) Pushidrosal is still located in Jakarta. This results in an inefficient collection of data and information in territorial waters of the Republic of Indonesia. This has resulted in less optimal data and hydro-oceanographic information, resulting in less optimal Pushidrosal support Indonesia as GMF.
- b. Supporting factors. The dominant supporting factor from the results of the research on the analysis of the implementation of Pushidrosal's role in supporting the government's vision of realizing Indonesia as GMF, as follows:
 - 1) Disposition factor. The attitudes of the policymakers and enforcement officials of echelon very supportive and understand the importance of the role of Pushidrosal as national hydrographic agencies in supporting the government's vision to realize Indonesia as GMF.
 - 2) Authority factor. Variable Pushidrosal authorities in realizing the government's vision to realize Indonesia as GMF is very strong because it is supported by legislation to the regulation legal level. The implementation of the duties, roles and functions of Pushidrosal as the National Hydrographic Organization, is responsible for providing data, information on hidros of Indonesian territorial waters and jurisdiction accurately, up to date and guaranteed availability to support the use of national sea space in order to realize Indonesia as GMF. The development of the Pushidrosal organization to become the main command for the Development of the Navy carries the consequences of the needs to sharpen its function, validate the organization and improve the capabilities of personnel, infrastructure, defense equipment/survey vessel, survey capabilities and data processing, information systems, hidros data sovereignty development, and the implementation of cooperation.

4. Conclusion

The results of the analysis of the implementation of Pushidrosal role in realizing the government's vision to make Indonesia as GMF, researchers were able to conclude, as follows:

4.1 Implementing of Pushidrosal Roles

Resource problems in realizing the role Pushidrosal dominated by the lack of personnel in quality and quantity, office facilities are inadequate even far from ideal conditions. Lack of surveying equipment and the budget only from a defence institution while supporting the general interest, Pushidrosal does not receive special allocations from the state budget non-defense as well as a survey ship is very limited. This can not be implemented in surveys hydro-oceanographic and marine research conducted by Pushidrosal for all Indonesian waters so that the preparation of the data and chart to support the military and the public interest is not complete effect on Pushidrosal role to support Indonesia as GMF.

The location of the Pushidrosal office, which is in Jakarta resulted in a less efficient collection of data and information across jurisdictional waters of the Republic of Indonesia. This results in less optimal hydro-oceanographic data and information so that Pushidrosal is not optimally supporting Indonesia as GMF.

4.2. Obstacles and Supporting Factors

Significant constraints are resources that include human resources, budget and facilities are inadequate even far from ideal and very influential in implementing Pushidrosal's role to support the vision of the government to realize Indonesia as GMF.

Human resources are the deciding factors in running an organization, both in quantity and quality the human resources. With good resources will certainly produce good products, and vice versa. Pushidrosal is an organization that has tasks and functions in the hydro-oceanographic surveying and charting the sea for the public interest or the military. In performing its duties Pushidrosal is supported by human resources that have the ability in the field of hydro-oceanographic surveying and charting with the number of personnel is still limited. Pushidrosal does not have human resources that specifically deal with military hydrography.

Operation of surveying and mapping for military purposes, Pushidrosal receives a budget from the Navy and Ministry of Defense. The budget obtained for military purposes has not fully met the needs of charting surveys in three strategic defense compartments at sea. This has an impact on the ability of Pushidrosal in support of the military interest is not optimal. To support the public interest, Pushidrosal has not received a special allocation from the non-defense budget. This also causes the need for ships, survey equipment, and marine still become obstacles.

The attitude of the policymakers in an echelon leadership role in the implementation of Pushidrosal's very supportive and understands the importance of Hydro-Oceanographic Data to support the government's vision to realize Indonesia as GMF. Strong support for variable disposition is also supported by the aspect of the authority of the laws and regulations for the role's Pushidrosal as an organization of hydrographic national but this support requires consideration of the surrounding environment and good coordination with the agencies, ministries and agencies and other stakeholders in the field of scientific marine.

5. Recommendation

Based on the analysis and discussion of this study, the authors propose the following recommendations:

- a. Pushidrosal demands and duties to ensure the availability of Hydrographic and Oceanographic data, then posture and organizational structure of Pushidrosal is needed that has adequate capacity, authority, and position in carrying out its duties as a National Hydrographic Organization.
- b. To optimize Pushidrosal's role in providing Hydro-Oceanographic data requires the addition of Hydrographic qualification personnel according to DSP, Hydro-Oceanographic survey's equipment and vessels for deep-sea capability.
- c. The addition of Hydrographic and Oceanographic Units (Sathidros) is needed in three regions, namely West, Central, and East, in order to optimize the supply of Hydros Information and data in all territorial waters of Indonesia.

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