

IMPLEMENTATION OF PUBLIC SERVICES FOR STATE NAVIGATION VESSELS IN MAINTENANCE OF NAVIGATION AIDS IN BITUNG TYPE A CLASS I NAVIGATION DISTRICT

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Abstract

This study aims to analyze the implementation of public services for the shipping of the State Ship (KN) Miangas in supporting the maintenance of Navigational Aids (SBNP) in the Bitung Class I Type A Navigation District , and to identify the supporting and inhibiting factors for the effectiveness of the shipping as an instrument of public navigational services. This study uses a qualitative approach with a descriptive research type. The research location was conducted in the Bitung Class I Type A Navigation District . Research informants were determined by *purposive sampling* , including the Head of the Navigation Section, the Captain of the KN Miangas, and the SBNP Maintenance Technical Officer. Data collection techniques were carried out through in-depth interviews, observation, and documentation. Data analysis used the interactive model of Miles and Huberman (data reduction, data presentation, conclusion drawing). Data validity was tested by triangulation of sources, techniques, and time. The results of the study indicate that the shipping of the KN Miangas is quite effective in supporting the maintenance of SBNP, but not yet fully optimal.

Keywords: *public services, effectiveness, KN Miangas, Navigation Aids (SBNP), Navigation District.*

INTRODUCTION

Indonesia, as an archipelagic nation, possesses unique geographic characteristics, comprising over 17,000 islands and vast territorial waters. These conditions make maritime transportation the backbone of the national connectivity system. Shipping safety is a primary prerequisite for ensuring the smooth operation of maritime transportation activities, both for economic, social, and national defense purposes. According to Law Number 17 of 2008 concerning Shipping, the state is responsible for ensuring the safety and security of shipping through the implementation of reliable and sustainable navigation. One of the key elements of the navigation system is the provision and maintenance of SBNP (National Transportation and Transportation Agency) as an essential public service. Public services are essentially all forms of services provided by the government to meet the needs of the community in accordance with laws and regulations. Dwiyanto (2010:42) emphasizes that the quality of public services is measured not only by the availability of services, but also by the effectiveness, efficiency, and sustainability of those services. In the context of navigation, public services do not directly impact the general public, but their impact is widely felt by users of shipping services, both nationally and internationally. Therefore, maintenance of the SBNP must be carried out effectively so that public service functions can run optimally. Effectiveness in public organizations is related to the level of achievement of predetermined goals. Robbins and Coulter (2016:68) explain that effectiveness indicates the extent to which an organization is able to achieve its strategic goals through the utilization of available resources. In the public sector, effectiveness is a crucial indicator for assessing public service performance, as it is directly related to the fulfillment of public interests and the accountability of service providers. Therefore, the effectiveness of the KN Miangas voyage can be seen from the extent to which the voyage is able to support the achievement of SBNP maintenance goals in a timely,

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targeted, and standardized manner. A Navigation District, as a Technical Implementation Unit of the Directorate General of Sea Transportation, operates within a strategic waterway in eastern Indonesia. This region experiences high shipping traffic and challenging natural conditions, such as extreme weather and high waves. Under these conditions, the presence of state-owned navigation vessels, including the KN Miangas, is a crucial factor in the successful implementation of SBNP maintenance. However, limitations in the number of vessels, their age, technical readiness, and budgetary support often pose obstacles that impact shipping effectiveness.

Theoretically, effective public services must meet the principles of good governance, including accountability, transparency, responsiveness, and effectiveness (UNDP, 2015:21). In the context of SBNP maintenance, the principle of effectiveness is reflected in the organization's ability to schedule, implement, and evaluate maintenance activities on an ongoing basis. When the KN Miangas's shipping cannot operate optimally due to technical or managerial constraints, public services in the field of navigation have the potential to experience a decline in quality. The issue of effectiveness is also related to the limited human resources with technical and managerial competencies in navigation. According to Osborne (2010:87), the capacity of public organizations is crucial to the successful implementation of public service policies. Without adequate human resource support, the use of state vessels as public service instruments will not achieve optimal results. This presents a unique challenge for the Bitung Class I Type A Navigation District in effectively managing the KN Miangas' voyages.

In addition, external environmental factors such as weather conditions, water characteristics, and shipping traffic dynamics also influence the effectiveness of SBNP maintenance. However, these external challenges should be anticipated through careful shipping planning and sound risk management. Hughes (2012:59) emphasizes that an effective public organization is one that is able to adapt to the external environment without sacrificing the quality of public services. Based on the description, it can be understood that the effectiveness of KN Miangas shipping as a public service instrument in maintaining SBNP is a strategic issue that needs to be studied in depth. This study is not only important to assess the performance of Bitung Class I Type A Navigation District, but also as material for evaluating public service policies in the field of navigation nationally. This research is expected to be able to provide academic contributions in the development of Public Administration science as well as practical contributions to improving the quality of public services in the maritime transportation sector. Based on the background of the problem described above, it is important to conduct research with the aim of To determine and analyze the implementation of KN Miangas shipping services and To identify and analyze the inhibiting factors in the implementation of KN Miangas shipping services in supporting the maintenance of Shipping Navigation Aids in Bitung Class I Type A Navigation District.

METHOD

This study uses a qualitative approach with a descriptive research type, which aims to understand in depth the phenomenon of the effectiveness of KN Miangas' voyages as a public service instrument in maintaining Shipping Navigation Aids (SBNP) in the Bitung Class I Type A Navigation District. The qualitative approach was chosen because this study does not focus on measuring numbers or testing hypotheses, but rather on efforts to explore the meaning, process, and dynamics of public service delivery that takes place in the context of government organizations. As stated by Moleong (2017:6), qualitative research aims to understand phenomena holistically by describing social reality based on the perspective of the subjects studied. Descriptive research is used to systematically and factually describe the implementation of KN Miangas' voyages and their effectiveness in supporting SBNP maintenance (Sugiyono, 2019:11). The research location was carried out in the Bitung Class I Type A Navigation District, which is a Technical Implementation Unit of the Directorate General of Sea Transportation. Research informants were determined by *purposive sampling*, namely the deliberate selection of informants based on the consideration that they understand and are directly involved in the implementation of KN Miangas voyages and SBNP maintenance. The informants interviewed included the Head of the Navigation Section, the Captain of KN Miangas, and the SBNP Maintenance Technical Officer. In addition, the research also involved direct observation in the field as well as documentation of official reports and relevant laws and regulations. Data collection techniques were carried out through three methods, namely semi-structured *in-depth interviews*, observations of shipping operations and SBNP maintenance activities, and documentation in the form of shipping reports, operational schedules, and other supporting documents. Data analysis in this study used the interactive analysis model from Miles and Huberman which includes data reduction (data selection and simplification), data presentation (in narrative and tabular form), as well as drawing conclusions and verification. Data analysis was carried out continuously from the data collection process until the research was completed.

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To ensure data validity, this study employed triangulation techniques, including source triangulation (comparing information from various informants), technical triangulation (comparing interview results, observations, and documentation), and time triangulation (collecting data at different times to ensure consistency). This approach enabled the researcher to obtain a comprehensive and reliable picture of the effectiveness of KN Miangas's voyages in maintaining the SBNP. Therefore, the method used was deemed appropriate for answering the problem formulation and achieving the stated research objectives.

RESULTS AND DISCUSSION

1. Implementation of public services for KN Miangas shipping in the maintenance of Navigation Aids (SBNP) in the Type A Class I Navigation District

A. Implementation of KN Miangas Voyages in SBNP Maintenance

The implementation of the KN Miangas voyage in the maintenance of Shipping Navigation Aids (SBNP) is a concrete form of public service implementation in the field of navigation that has special characteristics, namely technical, indirect, but has a broad impact on the interests of the community. In the perspective of modern public administration, public service is not only interpreted as a direct interaction between the government and the community, but also includes the provision of systems, facilities, and infrastructure that guarantee the safety and continuity of public activities (Denhardt & Denhardt, 2015:45). In this context, the KN Miangas voyage is the main instrument in ensuring the functioning of SBNP as a supporter of shipping safety. Based on the research results, the KN Miangas' voyages were carried out through a relatively systematic and structured mechanism. The implementation phase began with the identification of maintenance needs, which was based on reports on the condition of the SBNP, previous inspection results, and prioritization of locations requiring immediate attention. This phase demonstrates a rational approach to decision-making, where agencies strive to allocate resources effectively based on actual needs in the field. This approach aligns with the concept of public policy analysis, which emphasizes the importance of using data and information in determining policy priorities (Dunn, 2018:132).

Next, the shipping implementation continues with the operational planning stage, which includes preparing the shipping schedule, determining the route, and preparing the necessary resources. At this stage, it is clear that the agency has implemented public management principles that emphasize the importance of planning as the basis for implementing activities. Good planning is expected to minimize the risk of implementation failure and increase the efficiency of resource use (Osborne, 2010:71). However, research results indicate that this planning still faces challenges in its implementation, primarily due to uncontrollable external factors. During the implementation phase, the KN Miangas serves as the primary means of connecting administrative planning with technical implementation in the field. The vessel is used to transport personnel, equipment, and materials required for SBNP maintenance activities. This function demonstrates that the KN Miangas serves not only as a means of transportation but also as part of a public service system that enables activities in difficult-to-reach waters. This aligns with the concept of infrastructure-based public services, where the availability of operational facilities is a key factor in ensuring service accessibility (Grindle, 2017:98).

However, the implementation of the KN Miangas voyage was not without various obstacles that impacted its effectiveness. One of the main obstacles was unpredictable weather and sea waves. This factor required the voyage to be adjusted to safety conditions, resulting in the planned schedule not always being consistently implemented. In this context, the implementation of public services demonstrates adaptive characteristics, where organizations must be able to adapt to the dynamics of the external environment (Howlett & Ramesh, 2020:102). In addition to weather factors, limited sailing time and the vastness of the work area also hamper implementation. The Bitung Class I Type A Navigation District's work area, which encompasses a vast water area, means that not all SBNP locations can be reached within a single sailing period. Consequently, maintenance activities must be carried out in stages based on priority. This situation indicates limited operational capacity, which impacts the effectiveness of public services. In organizational effectiveness theory, this condition reflects a gap between organizational goals and available resource capabilities (Steers, 2010:27). From an operational perspective, the ship's technical condition is also a factor affecting sailing operations. Although the KN Miangas is generally in good operating condition, the need for routine ship maintenance remains unavoidable. Technical problems, even minor ones, can impact sailing delays and delay maintenance activities. This demonstrates that the success of public services is highly dependent on the readiness of operational facilities (Pollitt & Bouckaert, 2017:145).

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Furthermore, the implementation of the KN Miangas' voyage was also influenced by human resources. Research shows that competence, experience, and teamwork are crucial factors in ensuring smooth sailing. Professional human resources are capable of effectively carrying out tasks, from ship operations to technical work in the field. This aligns with policy implementation theory, which emphasizes that successful implementation is heavily influenced by the capacity of the implementer (Edwards III, 1980 in Winarno, 2012:180). Coordination between parties is also a crucial aspect of the KN Miangas's voyages. Coordination is carried out between the ship's management, crew, and technical staff to ensure that each stage of the activity runs according to plan. However, under certain circumstances, coordination still faces challenges, primarily due to limited communication at sea and changes in operational situations. This demonstrates that communication is a crucial factor in improving the effectiveness of public service delivery (Robbins, 2013:214).

From a supervisory perspective, the KN Miangas's voyages are supported by a periodic monitoring and evaluation system. Monitoring is conducted through voyage reports and maintenance reports, while evaluations assess the alignment between plans and implementation results. This system demonstrates an effort to maintain accountability for public services, a key principle of modern public administration (Bovens, 2010:126). From an effectiveness perspective, the KN Miangas's voyages can be categorized as quite effective. This is demonstrated by the ship's ability to reach maintenance locations, support technical work, and maintain the SBNP's functionality. However, this effectiveness is still relative, as it is influenced by various inhibiting factors previously identified. In effectiveness theory, this condition indicates that the organization has partially achieved its objectives but still has room for improvement (Steers, 2010:31). Furthermore, the implementation of the KN Miangas voyage also has implications for the overall quality of public services. The successful voyage in supporting the maintenance of the SBNP has resulted in increased safety and smooth sailing, ultimately benefiting the public. This aligns with the concept of public value, which emphasizes that the success of public services is measured by the benefits felt by the public (Moore, 2013:63).

However, to increase the effectiveness of KN Miangas's shipping operations, improvements are needed in several aspects, including increasing operational capacity, strengthening risk-based planning, enhancing human resource quality, and optimizing coordination and communication. Furthermore, budgetary and policy support must be strengthened to ensure the sustainability of public navigation services. Thus, the maintenance of the KN Miangas's voyages during the SBNP (National Maritime Security Agency) is a crucial part of the public service system, playing a strategic role in ensuring shipping safety. While it has been operating quite well, various improvements are still needed to achieve optimal and sustainable effectiveness.

B. Public Service Process for SBNP Maintenance

The public service process in the maintenance of Navigation Aids (SBNP) in the Bitung Class I Type A Navigation District is a form of public service that has special characteristics, namely indirect, technical-based, and oriented towards shipping safety. In the perspective of modern public administration, public service is not only measured by direct interaction between the apparatus and the community, but also from the government's ability to provide systems and infrastructure that guarantee the public interest at large (Denhardt & Denhardt, 2015:52). Therefore, SBNP maintenance can be categorized as a strategic public service that functions to protect the safety of shipping service users. Based on the research results, the SBNP public service maintenance process is implemented through integrated and systematic stages, starting from needs identification, activity planning, maintenance implementation, and evaluation of work results. These stages reflect a systems approach to public service that emphasizes the integration of input, process, output, and outcome in service delivery (Osborne, 2010:91). In this context, each stage plays a critical role in determining the quality of the resulting service.

The initial stage in the SBNP maintenance public service process is needs identification, which is conducted based on SBNP condition reports, field inspection results, and the extent of damage. This stage demonstrates that the agency has implemented a needs-based approach in providing public services. This aligns with the concept of public policy, which emphasizes the importance of problem identification as a basis for formulating government policies and actions (Dunn, 2018:148). Thus, the services provided are not general in nature, but specific to conditions on the ground. Next, the activity planning stage involves developing a work plan that includes determining priority locations, shipping schedules, and resource requirements. This planning demonstrates an effort to optimize the use of available resources. In public management theory, planning is a crucial function that determines the direction and success of activity implementation (Robbins, 2013:225). However, research shows that plans often undergo adjustments during implementation.

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These adjustments are primarily driven by external factors, such as weather conditions and the geographic characteristics of the waters. These factors mean that service delivery cannot always be carried out according to the planned schedule. This situation indicates that public services in the navigation sector are subject to a high degree of uncertainty, thus requiring flexibility in their implementation (Howlett & Ramesh, 2020:115). Therefore, the public service process in maintaining the SBNP cannot be completely rigid but must be adaptive to environmental conditions. The public service implementation phase is carried out through direct field maintenance activities, facilitated by the KN Miangas shipping line. During this phase, technical personnel inspect, repair, and replace SBNP components according to the conditions found. This process demonstrates that public services are not merely administrative but also involve complex technical activities. This aligns with the concept of technical-based public services, which emphasizes the importance of competence and skills in service delivery (Grindle, 2017:105).

From a quality perspective, the research results indicate that SBNP maintenance services have generally produced satisfactory results, namely the restoration of navigation facilities to their proper functioning according to established standards. This demonstrates that the service process has achieved its operational objectives. However, from a sustainability perspective, this quality still needs to be improved, particularly in terms of equipment durability and functional continuity. This aligns with the concept of public service quality, which emphasizes the importance of sustainable service outcomes (Tjiptono, 2014:102). Furthermore, the public service process also involves a periodic monitoring and evaluation system. Monitoring is conducted through activity reports and field inspections, while evaluations are conducted to assess the alignment between plans and implementation results. This system demonstrates efforts to maintain public service accountability. In public administration theory, accountability is a key principle that must be met in service delivery (Bovens, 2010:134).

However, research results show that the monitoring system is still primarily report-based rather than based on direct field supervision. This situation has the potential to reduce the accuracy of information regarding the condition of the SBNP after maintenance. Therefore, strengthening the field-based monitoring system is necessary to improve the quality of service evaluation. From an effectiveness perspective, the SBNP public service maintenance process can be considered quite effective, as it achieves its primary objectives of maintaining the functionality of navigation facilities and supporting shipping safety. However, this effectiveness is still influenced by various factors, such as limited shipping time, the size of the work area, and operational conditions in the field. This indicates that the effectiveness of public services is relative and influenced by environmental conditions (Steers, 2010:44). Furthermore, research results show that public services for maintaining the SBNP significantly impact the safety and smoothness of shipping. A well-functioning SBNP can provide clear navigational guidance for ships, thereby reducing the risk of accidents. This demonstrates the strategic value of public services in protecting public interests (Dye, 2017:25).

Furthermore, the public also experiences indirect benefits from these services, particularly in the form of increased maritime transportation security and smoother distribution of goods. This demonstrates that public services do not always have to be directly felt by the public, but can provide benefits through systems that support public activities (Moore, 2013:72). However, the SBNP maintenance public service process still faces several challenges, particularly related to timeliness and accessibility. Not all locations can be served simultaneously, so services are implemented in stages. This situation indicates limited service capacity that needs to be improved. Furthermore, human resources, operational facilities, and budget factors also influence service quality. Limited human resources can impact work efficiency, while limited facilities and budget can affect the frequency and quality of service. This demonstrates that the success of public services is highly dependent on resource availability (Pollitt & Bouckaert, 2017:160). Thus, the SBNP public service maintenance process demonstrates that the service has been running systematically and has achieved its primary objectives, but still requires improvement in various aspects. These improvements include strengthening operational planning, increasing resource capacity, optimizing monitoring and evaluation, and strengthening coordination between parties. Overall, the SBNP maintenance public service process is a crucial part of the navigation public service system, playing a strategic role in ensuring shipping safety. Therefore, improving the quality of the service process is crucial to supporting the ongoing effectiveness of public services.

C. Inhibiting Factors

Inhibiting factors are important variables in determining the level of effectiveness of the implementation of KN Miangas' voyages in maintaining Navigational Aids (SBNP) in the Bitung Class I Type A Navigation District. From a public administration perspective, the effectiveness of a program or activity is not only determined by the existence of

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resources and good planning, but also by the organization's ability to overcome various obstacles that arise in the implementation process (Steers, 2010:45). Therefore, analysis of inhibiting factors is important to understand the limitations faced in the implementation of public navigation services. Based on the research results, factors inhibiting the effectiveness of KN Miangas shipping can be classified into several main categories: external environmental factors, operational factors, human resource factors, budget factors, and coordination and managerial factors. These factors are interrelated and form a system of obstacles that impact the overall performance of public services.

The most dominant inhibiting factors are weather conditions and sea waves. Interviews indicate that unpredictable weather, high waves, and rapidly changing sea conditions are often the main obstacles to shipping operations. Under certain conditions, shipping must be postponed or rescheduled to avoid safety risks. This indicates that the implementation of public services in the maritime sector is highly dependent on natural factors that cannot be controlled by the organization (Howlett & Ramesh, 2020:118). Thus, weather factors are a dominant external obstacle and directly influence service effectiveness. In addition to weather conditions, the geographical characteristics of the waters are also a significant inhibiting factor. The working area of the Bitung Class I Type A Navigation District covers a vast water area, with complex geographic conditions, including open waters, strong ocean currents, and SBNP locations scattered in remote areas. These conditions make navigation more difficult and require longer time to reach certain locations. This is in line with the concept of geographical limitations in public services, which states that regional conditions can affect the accessibility and effectiveness of services (Grindle, 2017:110).

Another inhibiting factor is limited shipping time and limited service coverage. Research shows that not all SBNP locations can be serviced within a single shipping period, requiring maintenance activities to be carried out in stages based on priority. This situation indicates limited operational capacity, which impacts service effectiveness. In organizational effectiveness theory, this reflects a gap between desired goals and available resource capabilities (Steers, 2010:49). In addition to external factors, there are also inhibiting factors originating from internal organizational aspects, namely technical constraints on the ship and operational equipment. Although the KN Miangas is generally still in operational condition, research results indicate that the ship still requires routine maintenance to maintain its operational performance. Technical problems, whether with the engine, navigation system, or operational equipment, can affect the smooth operation of shipping. This indicates that the success of public services is highly dependent on the readiness of operational facilities (Pollitt & Bouckaert, 2017:165).

Furthermore, technical constraints were also found with the SBNP maintenance equipment used in the field. In some cases, the equipment did not function optimally or the available materials were insufficient for the job. This situation can affect the quality of maintenance results and slow down the implementation process. This demonstrates that technical aspects are a critical factor in determining the success of technical-based public services (Osborne, 2010:98). Another inhibiting factor is limited human resources. Research shows that the number of available personnel is not fully commensurate with the workload. This limited human resources results in suboptimal task allocation, increased workload, and limited ability to complete technical work in the field. In policy implementation theory, limited human resources are a key factor influencing implementation success (Edwards III in Winarno, 2012:185).

In addition to quantity, the quality of human resources is also a factor influencing service effectiveness. Although most human resources possess adequate competencies, capacity building and training are still necessary to address the complexities of fieldwork. This demonstrates that human resource development is a crucial aspect of improving the effectiveness of public organizations (Robbins, 2013:230). The next inhibiting factor is budget constraints. Research shows that the budget plays a crucial role in supporting the implementation and maintenance of SBNP shipping. Budget constraints can impact shipping frequency, fuel availability, ship maintenance, and the procurement of maintenance equipment and materials. Under budget constraints, agencies must prioritize activities, which can lead to uneven service delivery. This aligns with the concept of fiscal constraints in public services, which states that budget constraints can impact the quality and quantity of services (Dye, 2017:30). Furthermore, inhibiting factors were also identified in the coordination and communication aspects between departments. The research results indicate that coordination between parties, including management, crew, and technical staff, is not always optimal, especially under operational conditions in the field. Limited communication at sea, rapidly changing situations, and time constraints hinder the coordination process. This demonstrates that communication is a crucial factor in improving organizational effectiveness (Robbins, 2013:235).

From a policy implementation perspective, suboptimal coordination can lead to mismatches between planning and implementation. This demonstrates that successful implementation is determined not only by sound policies but also by

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the organization's ability to manage coordination between actors (Howlett & Ramesh, 2020:122). Based on the overall analysis, it can be concluded that the factors inhibiting the effectiveness of KN Miangas' shipping are a combination of interrelated external and internal factors. External factors, such as weather and geographic conditions, are uncontrollable obstacles, while internal factors, such as limited human resources, facilities, budget, and coordination, are manageable obstacles through increased organizational capacity. Therefore, to improve the effectiveness of KN Miangas' shipping operations, an adaptive and comprehensive management strategy is required, encompassing increased human resource capacity, enhanced operational facilities, optimized budget utilization, and enhanced coordination and communication between parties. This approach is expected to mitigate the impact of various existing obstacles and sustainably improve the quality of public navigation services.

CONCLUSION

Based on the results of research and discussion regarding the implementation of public services for KN Miangas shipping in the maintenance of Shipping Navigation Aids (SBNP) in the Bitung Class I Type A Navigation District, the following conclusions can be drawn: The process of implementing KN Miangas's public shipping services is carried out systematically and structured through four main stages. First, the planning stage, which includes identifying SBNP maintenance needs based on condition reports and inspection results, determining priority locations, preparing sailing schedules, and allocating resources. Second, the preparation stage, which includes checking the ship's technical readiness (engine, navigation, safety equipment), preparing crew and technical personnel, and procuring maintenance equipment and materials. Third, the implementation stage, in which KN Miangas sails to the SBNP location, transporting personnel and equipment, and supporting technical maintenance activities such as inspections, repairs, and replacement of SBNP components. Fourth, the evaluation stage, which is carried out through reporting sailing and maintenance results, monitoring the condition of the SBNP after maintenance, and identifying obstacles for further improvement activities. This public service is indirect but strategic, because the functioning of the SBNP has a direct impact on the safety and smoothness of shipping.

Factors inhibiting the effectiveness of KN Miangas' voyages consist of external and internal factors. The dominant external factors are bad weather conditions and unpredictable sea waves, the geographical characteristics of the vast and complex waters, and the long distance to the SBNP location. Internal factors include limited sailing time and field work time which means that not all locations can be reached simultaneously, technical constraints on the ship (engine, navigation system) and maintenance equipment, limited number and competence of human resources resulting in a high workload, budget constraints that affect the frequency of voyages, fuel availability, and procurement of maintenance materials, and obstacles to coordination and communication between parties (management, crew, technical staff) especially at sea due to limited communication networks. These obstacles have an impact on the timeliness of implementation, uneven service coverage, and the quality of SBNP maintenance results that are not fully optimal.

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