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STRATEGY FOR DEVELOPING THE CAPACITY OF GEOSPATIAL INFORMATION AGENCY IN ORDER TO IMPROVE ORGANIZATIONAL PERFORMANCE AS AN EFFORT TO FULFILL NATIONAL GEOSPATIAL INFORMATION NEEDS

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ABSTRACT: *The enactment of Law Number 11 of 2020 concerning Job Creation requires the availability of geospatial information as a database for granting investment permits in the regions. Availability of basic geospatial information is provided 1.9% of the national requirement. The demand for the acceleration of the implementation of geospatial information is contained in the national work priority program in the national medium-term development plan (RPJMN) for 2020-2024. The limited organizational capacity of the Geospatial Information Agency requires capacity building to be carried out. This study uses a post positivism approach with qualitative data analysis techniques. The result of this research is that there is a gap in capacity and needsorganization in an effort to accelerate the implementation of Geospatial Information, including inadequate budget, suboptimal infrastructure, higher technology needs, inadequate human resource capacity, and weak organizational culture. The capacity development strategy as an effort to meet the needs of national Geospatial Information is a reorientation of organizational arrangements, strengthening policies and infrastructure, competency-based HR capacity development programs, strengthening collaboration with stakeholders, and strengthening organizational culture through optimal leadership roles.*

Keywords *-Geospatial Information, Capacity Development, Organizational Capacity, Organizational Performance, Public Sector Organizations*

I. INTRODUCTION

The presence of the Job Creation Law in Indonesia in 2020 aims to create a quality business and investment climate for business people, including Micro, Small and Medium Enterprises (MSMEs) and foreign investors . Furthermore, this Law regulates the simplification of business licensing by revising regulations related to location permits, environmental permits, and building permits. One of the important aspects in granting location permits is the availability of the area and its suitability for the development of an area in terms of environmental, economic, social, and cultural sustainability aspects . This is referred to as spatial planning based on the role of planning in shaping the economic, social, cultural, and ecological dimensions of society through "placement" [1]. This is re-explained by academics that spatial planning lies at the intersection of the integration of a country's policy-making and/or cooperation policies between countries. For this reason, land use planning for an area describes many aspects of planning practice that provide change management strategies and involve policy making, policy integration, community participation, agency ownership, and development management [2]. Thus, the availability of accurate geospatial information in the form of base maps and detailed spatial plans is an urgent need to support the implementation of ease of doing business in Indonesia.

Based on data from the Geospatial Information Agency in 2020, basic geospatial information which is the basis for making detailed plans for spatial data is only available at 1.9% of the existing needs. Meanwhile, the use of geospatial information in the world is currently used in various sectors. In fact, all people in the world use geospatial

services in their daily life through their computers, smartphones, tablets and GPS devices. It is estimated that the influence of geospatial services on the economy in three key businesses, namely marketing, logistics, and strategic decision-making will continue to grow at least 10 percent per year in the next five years. Based on the analysis of The Boston Consulting Group (BCG) in 2012, the geospatial services industry in the United States was able to increase revenues by US$ 1.6 trillion and save US$ 1.4 trillion in costs in the US economy [3].

The Geospatial Information Agency (BIG) is a non-ministerial government agency (LPNK) responsible for organizing Basic Geospatial Information, coordinating and fostering thematic geospatial information, and developing geospatial information infrastructure. To meet the need for geospatial information, it is necessary to accelerate the implementation of geospatial information contained in the National Medium-Term Development Plan (RPJMN) for 2020-2024. The program for accelerating the implementation of geospatial information requires capacity building in the organization, because the acceleration efforts cannot use business processes that are usually carried out at this time. In addition, the organization must identify its capacity to strategize in achieving its objectives. Therefore, organizations need tailored capacity building approaches and implementation programs that enhance organizational and technical capabilities, as well as relationships and values that enable countries, organizations, groups and individuals to carry out relevant functions and achieve organizational goals [4].

Based on the description of the background and subject matter above, the problems in this study are:
"What is the strategy for developing the capacity of the Geospatial Information Agency in order to improve organizational performance as an effort to meet the needs of national geospatial information?"

The purpose of this study is to analyze the capacity of the Geospatial Information Agency and to analyze the capacity development strategy in order to improve the performance of BIG as an effort to fulfill the needs of the National Geospatial Information.

II. THEORETICAL REVIEW

In this article, we will analyze using theories related to capacity, capacity development, capacity development strategies, and organizational performance.

2.1 Capacity

According to Morgan, the concept of capacity has various perspectives and has been influenced by ideas related to participation, public sector reform, civil society and empowerment [4]. According to Hall, et al [5], capacity is multidimensional. Capacity refers to the ability to perform or produce and is often used as potential. The overall capacity of an organization to fulfill its mission depends on a variety of specific capacities. Another opinion explains that organizational capacity is a different entity by itself and the result of individual capacity within the organization [6].

Furthermore, the United Nations Development Program (UNDP) defines capacity as the ability to perform functions, solve problems, and set and achieve goals. This definition recognizes that national capacity is not just the sum total of individual capacities, but is more complex because it weaves individual strengths into stronger and more resilient structures. This makes it possible for an organization or country in a wider context in an effort to develop its capacity to do more than just develop individual skills. They must also create opportunities and incentives for people to use and expand individual skills [7]. From this definition, UNDP divides 3 (three) levels of capacity in interrelated organizations, namely the individual level, the organizational level, and the level in the supporting environment. At the individual level, capacity refers to the skills, experience, and knowledge possessed by people. Then at the organizational level consists of policies, arrangements, procedures, and internal frameworks that enable the unification of individual capacities to work together and achieve goals. Lastly is the enabling environment, this term is used to describe the broader system within which individuals and organizations function and which facilitates or hinders their performance [8].These three elements influence each other in a continuous and interdependent manner.

2.2 Capacity Development

In the concept of capacity development there are various terms, which are commonly used are capacity building and capacity development. According to UNDP, capacity development usually refers to the process of creating and building capacity and its use, management and retention. This process is driven from within and starts from existing national capacities. Whereas capacity building generally refers to a process that only supports the initial stages of development or capacity creation and refers to the assumption that no capacity exists to initiate it[8]. Capacity development is a growth process that continues to evolve and produces positive change, this transformation in capacity development is to drive a process with a set of functional capacities that enable planning, implementation and monitoring and evaluation of initiatives for growth [9]. These functional capacities include the capacity to engage stakeholders, the capacity to assess the situation and strategies, the capacity to formulate policies

and strategies, the capacity to budget, manage, and implement, and the capacity to evaluate. Then the concept of capacity development in the field of geospatial information is part of the concept of Spatial Data Infrastructure (SDI). This concept is multidisciplinary, dynamic, and hierarchical because it includes people, data, access networks, institutional policies, technical standards and dimensions of human resources. SDI's role is to facilitate real-time access and sharing of spatial data to support more effective cross-jurisdictional and inter-agency decisions in priority areas such as emergency management, disaster relief, natural resource management [10]. Therefore, capacity building for SDI, in a broad sense, can refer to increasing the ability of all parties involved to perform the appropriate tasks within the broad set of principles of the SDI initiative. The capacity factors include technological factors, economic factors, partnership factors, human factors, and organizational factors. Based on research by Morgan & Brinkerhoff [11], the selection of a capacity building strategy requires effective planning and is supported by external intervention.

2.3 Capacity Development Strategies

In every organization, strategy is needed to achieve organizational goals effectively. In public sector organizations such as the Geospatial Information Agency, in achieving the vision and mission of the organization, strategic goals are needed which are further divided into organizational performance indicators. Strategy determines long-term goals but is more concerned with how these goals should be achieved. In line with the notion of strategy according to Johnson and Scholes, strategy is the direction and scope of an organization in the long term ideally, which adapts its resources to its constantly changing environment, and in particular with users/clients to meet stakeholder expectations. Strategy is a means to create value, so a good strategy is a successful strategy that guides actions to deliver the desired results [12]. In every organization, strategy is needed to achieve organizational goals effectively. In public sector organizations such as the Geospatial Information Agency, in achieving the vision and mission of the organization, strategic goals are needed which are further divided into organizational performance indicators. Strategy is a means to create value, so a good strategy is a successful strategy that guides actions to deliver the desired results [12]. Strategic management means that managers look ahead to what they need to achieve in the future in the short, medium, and long term. Therefore, strategic management is visionary management, which is concerned with the creation and concept of ideas where the organization should go. But it is also empirical management, which decides how in practice it will get there. The focus is on identifying the organization's mission and strategy, but attention is also paid to the resource base needed to make it successful [12]. Robins suggests a capacity building framework that is considered more holistic and strategic, especially for the government that organizes national programs [13]. In relation to the performance of the Geospatial Information Agency, the strategic management of the organization is a series of decisions and actions made by management and implemented by all employees and related stakeholders in order to achieve the organization's vision and mission in meeting the needs of National Geospatial Information. There is a need for capacity building in the Geospatial Information Agency, it is hoped that a clear capacity development strategy can be implemented effectively in a minimum of time.

2.4 Organizational Performance

This article also uses the concept of organizational performance to see if the capacity development strategy is in line with organizational performance indicators. Understanding organizational performance according to Swanson [14] that organizational performance can be seen from the suitability of the goals or mission of the organization with the reality of its conditions (economic, political, social, and cultural factors), policy structure, leadership, capital, culture, compensation to support the achievement of the desired performance. Surjadi further explained that organizational performance is the totality of the work achieved by the organization. The achievement of organizational goals means that the performance of an organization can be seen from the level of the extent to which the organization can achieve goals based on predetermined goals [15]. In the era of organizational reform and the implementation of new public management, performance management in organizations is one of the core elements that organizations must actively measure and implement [16]. In seeing the performance of an organization, performance appraisal indicators are needed. This indicator is based on the organization's mission and objectives to be achieved. The importance of performance measurement is carried out by organizations to compare organizational performance and further growth. Organizations manage their improvement efforts based on facts and measuring performance is deriving those facts. That is, organizations use performance measurement to help achieve the desired level of performance [17]. One of the most widely used organizational performance measurement systems in the public sector is the balanced scorecard system. The balanced scorecard translates an organization's mission and strategy into a comprehensive set of performance measures that provide a framework for strategic measurement and management systems. It measures organizational performance across four related perspectives: financial, customer/user, internal business processes, and learning and development [12].

III. RESEARCH METHODS

This study uses a *post positivism* approach with qualitative data collection methods.In the postpositivist approach a researcher starts with a theory, collects data that supports or disproves the theory, and then makes the necessary revisions and performs additional tests [18]. The ontological aspect in this study is the organizational capacity required for the implementation of accelerated business processes with performance targets for achieving national work priorities as stated in the 2020-2024 national medium-term development plan (RPJMN). From the epistemological aspect, this research examines the object of research using scientific methods supported by scientific thinking tools, whose mindset is deductive, starting with specific things. Meanwhile, from the axiological aspect, the use value of this research can be seen positively and normatively. Positively, the use value of this research is to describe and explain various capacity problems that occur in the Geospatial Information Agency, while normatively, the use value of this research is to provide input on the conditions of problems faced by the Geospatial Information Agency so that efforts to accelerate the implementation of geospatial information run smoothly, effective and organizational performance targets are achieved.

Judging from its purpose, this research is included in the type of descriptive research because it has the main goal of making a picture or description of a situation objectively. Meanwhile, in terms of benefits, this research is included in pure research, because it is carried out according to the needs of researchers within an academic framework. Data collection techniques in qualitative research consist of three data collection strategies, namely observation, interview and document study. The data analysis technique in this study is qualitative data analysis using an interactive model, which is used to process the data obtained in the field, so as to reach a conclusion that is expected to answer the questions in this study.

There are two types of informants in this study, namely informants from internal organizations and informants from outside the organization such as academics and BIG stakeholders. Informants from the internal Geospatial Information Agency are actors related to the management and implementation of the Geospatial Information Agency. The informant chosen was mainly the Head of BIG because he is an actor who plays a very important role in the decision-making process and regulates the organization's business processes. Then related echelon I officials such as Deputy for Basic Geospatial Information, Deputy for Thematic Geospatial Information, and Deputy for Geospatial Information Infrastructure and related echelon 2 officials. Informants interviewed are parties who clearly understand and are involved in the formulation of policies related to efforts to accelerate the implementation of geospatial information and implementing the program. External parties who became informants in this study were representatives from Ministry of National Development Planning of the Republic of Indonesia, Bandung Insitute of Technology academics, and users of geospatial information from local governments.

IV. RESEARCH RESULTS

Geospatial information is information regarding geographic location, dimensions, characteristics of objects under, on, or above the earth's surface that can be used as a tool for policy formulation, decision making, and/or implementation of activities related to terrestrial space. Indonesia has a complex geographical area, which has 17,504 islands and an area of 8,300,000 square kilometers of land and sea. With this area, the government's need for accurate geospatial information is very high for national development in the fields of infrastructure, economy, health, bureaucracy, and disaster mitigation. So that geospatial information is something that is very strategic in national development. This is in line with the statement made by BimoArvianto, Bappenas (2021) as follows:

…Based on the national development planning law itself, there is a phrase which states that development planning must be supported by accurate data. Now that includes geospatial data, of course the Geospatial Information Agency plays a very important role (in national development planning). BIG and BPS are the hands of Bappenas, BIG coordinates spatial data and BPS coordinates statistical data. Then this was further strengthened by the revision of the Job Creation Law and Government Regulation on geospatial information.

To meet the need for national geospatial information, it is necessary to analyze the gap between BIG's existing capacity and the capacity requirements expected by the organization. Organizational capacity is a collective ability possessed by an organization that enables the organization to achieve its goals. In organizing geospatial information, the capacity factor in capacity development based on the concept of spatial data infrastructure consists of:

a. Organizational factors

Organizational factors relate to the way the Spatial Data Infrastructure (SDI) is defined, designed, and implemented. These factors mainly cover all core components of SDI including technical and institutional issues such as policy access, technical standards and SDI as a conceptual model [10]. In public sector organizations such as BIG, national policies contained in the national priority program (RPJMN) are tasks that must be carried out and

completed. The birth of the policy of Law Number 4 of 2011 concerning Geospatial Information which was later amended in Law Number 11 of 2020 concerning Job Creation and its derivative regulations changed the business processes within the organization of the Geospatial Information Agency. Based on these policy changes, there are several important points for the implementation of Geospatial Information and influencing BIG as a public sector organization, including a change in the meaning of the type of base map which emphasizes that each element of the base map is an information unit with the same output. Previously, topographical mapping, mapping of the marine and coastal environment, as well as mapping of regional boundaries were carried out separately under their respective echelon 2 work units. With the new policy, the implementation of Geospatial Information for base maps becomes one. And the implication is on the BIG organizational structure and business processes in coordinating the implementation of the base map. Next is a change in the type of map scale which is simplified into five specific scales so that BIG focuses on providing maps with that scale covering the entire territory of Indonesia. The new policy also regulates the provision of certified geospatial information and the involvement of business entities in providing Geospatial Information in the context of accelerating the provision of basic maps and the development of geospatial information human resources.

Based on the results of the researcher's interview with the Deputy for Basic Geospatial Information and the Head of Center for Topographic Mapping and Toponym, policies related to technical administration and technical financing are not yet available. The formulation of policies related to financing is carried out by BIG by involving Ministries/Institutions such as the Ministry of Finance and the Ministry of SOEs through the Regulation of the Minister of Finance. The fulfillment of this policy capacity must be carried out at the beginning of the program, especially with the target of completing the work by the end of 2024. This policy aspect also includes the availability of standards, both product standards and human resource competency standards (HR). Standards regarding products are made by the technical unit that produces the geospatial information, in this case is the Center for Topographic Mapping and Toponym and the Deputy for Basic Geospatial Information. Currently, the standard for geospatial information products in the form of a large scale base map of 1:5,000 is not yet available. In table 1 below is the capacity of existing policies in an effort to accelerate the implementation of geospatial information.

Table 1. List of policies and standards for the implementation of geospatial information

Legislation	**Standard**
Law No. 11 of 2021 concerning Job Creation	33 Geospatial Data Collection Standards
Government Regulation No. 45 of 2021 concerning the Implementation of Geospatial Information	68 Geospatial Data Processing Standards and Geospatial Information
Presidential Regulation No. 11 of 2021 concerning Cooperation between the Central Government and SOEs in the Implementation of Basic Geospatial Information	3 Standards for Storage and Security of Geospatial Data and Geospatial Information
Presidential Regulation No. 23 of 2021 concerning Amendments to Presidential Regulation No. 9 of 2016 concerning Acceleration of the Implementation of the One Map Policy at the Level of Map Accuracy Scale 1:50,000	10 Standards for Dissemination of Geospatial Data and Geospatial Information
	5 Standards for Use of Geospatial Information
	5 Infrastructure Standards to Support the Implementation of Geospatial Information

Source: BIG, 2021 processed by researchers

b. Economic/Financing Factor

The budget problem for providing base maps is the main problem faced by BIG so that the implementation of large-scale Geospatial Information is slow. Based on a study conducted by Center for Topographic Mapping and Toponym (2020), the budget requirement for the provision of a large-scale base map covering the entire territory of Indonesia is around 4.8 trillion rupiah. The financing for the provision of this large-scale base map is the largest financing component in the BIG organization. This is also evidenced by data related to the BIG budget value for the last five years, namely 2017 to 2020, in 2017 to 2019 the BIG budget value tends to be around 700 billion rupiah and in 2020 it has decreased due to pandemic conditions. With this amount of budget, as stated by the Head of BIG,

the annual budget can only complete a base map of 10,000 square kilometers per year. For that, the need for stable financing. BIG's need for financing is influenced by the need for high-cost technology.

c. Technological Factor

As an effort to fulfill the need for national Geospatial Information, which is also a priority task of BIG at this time, the need for Geospatial Information infrastructure capacity needs to be adjusted to the strategic program to accelerate the provision of base maps taken by BIG. On the technology side, the program to accelerate the provision of a large scale 1:5,000 base map, which is a priority for BIG's work, currently requires higher technology than before. The use of technology in question is in data collection, data processing, storage, and dissemination of geospatial information. With the current technological capacity, the collection and processing of geospatial data takes a long time with a short range. So we need high capacity technology that can save time and human resources. Based on the primary data and secondary data of this study, the researchers conducted an inventory of technology needs in the provision of basic geospatial information, including:

1) Adequate data center;
2) *Airborne SAR* geospatial data acquisition technology, aerial photography, and LIDAR
3) Large-scale base map production technology

   At the production stage, the technology that will be used is *Automated Feature Extraction (AFE).* The production phase will be carried out from 2022 to 2024.
4) Development of a cloud-based basemap production and publication system.

The need for technology in an effort to accelerate the provision of basic geospatial information has not been met with the current technological capacity of BIG. Especially in the stages of collecting and processing geospatial data, namely the use of *Airborne SAR (Radar)* and *Automated Feature Extraction* technologies. In the previous Radar technology, BIG had not been used because of the high cost and limited human resources who had the competence to use the *Airborne SAR*.

d. Human resource factor

Human resource capacity includes the availability of quality and quantity of human resources in the organization in helping the achievement of organizational goals. Human resources at the Geospatial Information Agency are divided into State Civil Apparatus (ASN) and professionals in the field of geospatial information. Competency standards for ASN with functional positions of mapping surveyors are regulated in the Regulation of the Minister of Administrative Reform and Bureaucratic Reform (PermenpanRB) Number 27 of 2020 concerning Functional Positions of Mapping Surveyors, while the competence of professionals in the field of geospatial information is regulated in Regulation of the Geospatial Information Agency Number 7 of 2021 concerning Geospatial Information Field Work Competence. With the use of new technology, the competency standards for Human Resources in the field of Geospatial Information and the competency dictionary for functional positions need to be reviewed and adjusted to the competencies required in efforts to accelerate the implementation of Geospatial Information.

In providing basic geospatial information, the current need is human resources who have competence in the use of Airborne SAR technology and programming skills related to map processing. In addition, with changes in business processes, the provision of basic geospatial information is carried out in collaboration with ministry agencies and local governments. In the field of thematic geospatial information, the implementation of Geospatial Information is more focused on fostering the implementation of thematic geospatial information and integrating thematic geospatial information carried out by ministries/agencies and local government agencies. From these conditions, the need for human resources is communication skills, problem solving, publicspeaking. In addition, the need for competent Human Resources at the level of supervisor is also needed to ensure the thematic geospatial information produced is of high quality. Not only the competence of employees, the Deputy for Thematic Geospatial Information also emphasizes that the management of Human Resources in the form of proper placement and development of appropriate Human Resources is very important for the achievement of the organization's vision and mission.

In this study, researchers found that one of the biggest obstacles for BIG organizations is organizational culture. Based on the results of the BIG organizational culture survey in 2019, the cultural entropy value is 33%, which means that this is a serious situation that requires immediate intervention and leadership change. Based on the results of interviews and the results of survey data regarding organizational culture in 2019, this organizational culture problem cannot be ignored. Communication problems and the distrust that occurs between employees and organizational leaders as well as between organizational leaders hinder the BIG organization in achieving its goals. This then needs to be considered in the capacity building strategy at the Geospatial Information Agency. Another problem is that the implementation of human resource capacity development through education

and training has so far not been optimal. So that it has not been able to solve the problem of human resource needs in order to achieve organizational performance.

e. Partnership Factor

Partnerships in the implementation of geospatial information are regulated in the National Geospatial Information Network through network nodes. A network node is an institution that is responsible for organizing the collection, maintenance, updating, exchange, and dissemination of Geospatial Data and Certain Geospatial Information (Article 1 of Presidential Regulation Number 27 of 2014 concerning the National Geospatial Information Network). The National Geospatial Information Network (JIGN) aims to avoid duplication of geospatial information, fast access to information, and efficiency of activities and budgets. The construction of network nodes until 2021 has produced 508 network nodes in Regencies/Cities, 34 network nodes in the Provincial Government, and 65 in Ministries/Agencies spread across all regions in Indonesia. However, all of these network nodes are not entirely optimal, this is due to the uneven ability of ministry/institution/regional agencies to fulfill the five pillars of geospatial information infrastructure in the form of agency/regional head regulations related to network nodes, technical implementing units, cooperation agreements with BIG, HR in the field of geospatial information (functional position of mapping surveyor), ICT infrastructure support, data dissemination software, and the availability of spatial data.

V. DISCUSSION

Capacity building strategies in organizations require effective planning and supported by external intervention [4]. There are three perspectives of capacity development strategy, namely capacity development is treated as a program that emphasizes clear targets, specifications, and achievement of objectives, and management of results; an incremental approach based on the principles of adaptation and flexibility in implementation, and; capacity building as the emergence of collective action processes from the resources, rules that enable organizations to learn. From these three perspectives, the Geospatial Information Agency needs to implement the elements of the three strategies. That demands do not only come from within the organization, but also from outside the organization which has direct implications for the community.Based on the problem of organizational capacity, the capacity development strategy of the Geospatial Information Agency in order to improve organizational performance as an effort to fulfill national geospatial information needs, among others:

1) Capacity to engage stakeholders

The presence of the new policy brings substantial changes to the organization's business processes. BIG cannot work alone to meet the needs of national Geospatial Information which must be completed by the end of 2024. The involvement of stakeholders such as State-Owned Enterprises, ministries/agencies, provincial governments, district and city governments is quite clearly regulated in Law Number 11 of 2020 concerning Job Creation and Government Regulation Number 45 of 2021. This is an effort to accelerate the implementation of geospatial information that emphasizes collaboration in its implementation. Furthermore, on the development side of Geospatial Information infrastructure, the problems that arise are the unequal distribution of human resources in the field of Geospatial Information in Indonesia and the infrastructure in the form of network nodes is not yet fully optimal. For this reason, the capacity development strategy that needs to be carried out by the organization is to ensure the commitment of the leadership of the ministry/institution/region in the implementation of geospatial information, improve coordination and communication with stakeholders regarding the urgency of using geospatial data in regional development, carry out systematic and sustainable development through the implementation of assistance and consultation organizing Geospatial Information with competent human resources so that the resulting Geospatial Information is of high quality, and maximizing the use of long-distance communication technology and existing Geospatial Information dissemination portal applications.

2) Capacity to assess situations and strategies

For organizations, the ability to assess the capacity of assets owned and needed is very important. This step helps the organization establish a baseline against which progress should be measured through the identification of existing capacity assets and the level of capacity required to achieve the organization's objectives [9]. This capacity assessment process must be carried out in stages and interrelated between one work unit and another. So that capacity gaps can be determined and the organization is able to set realistic goals with a realistic time frame for building capacity. Based on interviews that have been conducted by researchers and available secondary data, BIG is currently still in the process of formulating the basic implementation strategy for accelerating the implementation of geospatial information by completing the required regulations and standards. The weakness is that there is no need assessment document related to efforts to accelerate the implementation of Geospatial Information. In addition, an employee competency assessment has not yet been carried out to map the individual capacity of

employees. This needs assessment document should be the basis for the planning strategy for accelerating the implementation of Geospatial Information by BIG to determine the next implementation step. In addition, this is also useful for monitoring and evaluation activities on a regular basis to see the direction of the implementation of the strategy for accelerating the implementation of geospatial information until the end of the target completion period. The researcher also considers that in the process of identifying needs in an effort to accelerate the implementation of Geospatial Information carried out by each work unit and information related to the assessment process has not been transparent and well informed between work units in BIG. Internal communication by the leadership needs to be done through two approaches, namely formal and informal approaches. The formal approach is carried out through leadership meetings and operational meetings on a theme. Meanwhile, the informal approach is through social media, going directly to the field to see the progress of work in the field. Communication made by the leadership in this organization has a major influence on the continuity of the organization. The Head of BIG as the head of the organization understands the problems that occur within the organization is very good and this communication is expected to be carried out consistently so that a good relationship is achieved from top to bottom or from bottom to top. And this should be a role model for managers in improving individual performance and organizational performance.

3) Capacity to formulate policies and strategies

The formulation of the development program must contain a combination of short and medium term programs. Based on an analysis of current capacity and organizational needs, BIG's weakness is limited financial and technological resources. To overcome financing problems, BIG cooperates with State-Owned Enterprises (BUMN). This is something new because it is the starting point for the geospatial information industry in the business and community sectors. The result of the collaboration between BIG and BUMN is basic geospatial information according to national geospatial information needs and the use of basic geospatial information for commercialization in the business and community sectors. By looking at the performance target of BIG's strategic plan ending in 2024, the short-term programs needed include:

- Ensuring the completeness of all policies, both from within the organization and from outside the organization;
- Relevant studies are needed on the readiness of companies affiliated with SOEs related to their functions in mapping surveys;
- Ensuring the availability of technology to be used in data collection and processing methods in companies affiliated with SOEs;
- Improve internal and external communication to equalize perceptions related to the established strategy and to harmonize policies across work units.

4) Capacity to budget, manage and implement

At this stage the organization carries out all the thinking, planning, assessment, analysis, and design in its activities both inside and outside the organization [5]. To implement the program to accelerate the implementation of Geospatial Information, an effective program planning is needed. This program planning is prepared through a strategic plan with measurable performance indicators. The big task facing BIG today requires a capacity building strategy because the work at hand cannot use traditional methods. Based on the results of interviews with the Head of BIG, a capacity building strategy needs to be carried out through BIG arrangements. Through the reorientation of the preparation of BIG's strategic plans and budget allocations, it is carried out to meet the demands of BIG in the future. However, its implementation at the beginning of the program was slow, this was due to the fact that the technical policy formulation had not yet been fully completed. The organization must be able to see the development of the situation and make risk management to minimize unwanted conditions that can hinder efforts to accelerate the implementation of geospatial information.

5) Capacity to evaluate

The organization's ability to evaluate its performance is reflected in changes in performance, which can be measured by increasing efficiency and effectiveness [9]. The program for accelerating the implementation of Geospatial Information is contained in organizational performance indicators based on the division of labor in work units. Evaluation is carried out by monitoring and evaluating periodically in echelon 2 work units. Technically, evaluation of the strategic program can be seen through the amount of geospatial information generated and used by stakeholders. Based on the results of researcher interviews with informants, the evaluation strategies for the acceleration program for the implementation of geospatial information, include:

- monitoring and evaluating institutional performance on a regular basis to the Ministry of National Development Planning/Bappenas;

- Monitoring and evaluation at each stage of the implementation of geospatial information from the technical side, data security, and compliance with laws and regulations by involving relevant stakeholders.

VI. CONCLUSION

The capacity of the Geospatial Information Agency is still not strong enough to meet the needs of national geospatial information. The effort to accelerate the implementation of geospatial information with a target completion time of less than five years requires an appropriate capacity development strategy so that BIG can meet its performance targets. The capacity problems that exist in BIG include organizational factors, economic factors, technological factors, human resource factors, and partnership factors. The problem with the organizational capacity factor is that there are inadequate policies, especially policies regarding financing aspects and basic geospatial information product standards. On the technological capacity factor, the current geospatial data collection technology still takes a long time to process and has a short range. So it requires a higher technological capacity. The need for new technological capacity has implications for the need for human resource capacity. The current condition is that there are very few HR competencies in BIG that control the use of *Airborne SAR*, so that the development of HR competencies through education and training is needed. In addition, the problem of HR management in BIG which is one of the obstacles for BIG is a weak organizational culture, which indirectly affect employee motivation in performing. Furthermore, the problem in the partnership capacity factor is that the development of geospatial information infrastructure in ministries/agencies/regions is still not optimal in terms of policies, technology, and human resources. To overcome this capacity problem, BIG has reoriented its organizational structure through policies that emphasize the principle of collaboration with stakeholders and users of geospatial information. In addition, organizational strengthening is carried out through strengthening communication and preparing strategic plans.

VII. SUGGESTION

Researchers provide advice on the problem of organizational capacity gaps in the Geospatial Information Agency as a strategy for developing organizational capacity in order to improve organizational performance, as follows:

1. Organizations must ensure the commitment of the leadership of ministries/agencies/regions in the implementation of geospatial information, improve coordination and communication with stakeholders regarding the urgency of using geospatial data in regional development, carry out systematic and sustainable development through the implementation of assistance and consultation on the implementation of Geospatial Information with competent human resources so that the resulting Geospatial Information is of high quality, and maximizes the use of long-distance communication technology and the application of the existing Geospatial Information dissemination portal.
2. The organization must also assess the situation faced by the organization and its strategies to minimize risks. The capacity assessment has been carried out by BIG but there is no harmonization among work units. To overcome this, an intense communication mechanism is needed between the leadership and work units as well as between work units, and the results of this assessment need to be well documented as evidence of management's commitment.
3. In formulating policies and strategies, what BIG needs to do is use scientific research as a basis for decision making to ensure the method to be taken is an appropriate step, especially in formulating technical policies, technology selection, and human resources.
4. Finally, strengthening the monitoring and evaluation of the program to accelerate the implementation of geospatial information involving BIG stakeholders.

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