

Policy Paper

The Concept of Electronic-Based THIS Planning in the Ministry of Transportation

Irwan Dharmawan

Planning Bureau, Secretariat General, Ministry of Transportation Republic Indonesia
irwan_dharmawan@dephub.go.id

Abstract

Synchronization of planning and budgeting is a common problem that is often experienced by public organizations in Indonesia, especially in the Ministry of Transportation. The gap in planning and implementation due to this problem is a symptom that the THIS (Thematic, Holistic, Integrative, Spatial) concept has not been able to run optimally and could be optimized through e-government, which does actually not yet reflect the interoperability aspects between each planning application such as e-planning & budgeting; e-performance; e-monitoring & reporting; up to AP2KP (Application for Appraisal of Achievement and Calculation of Employee Performance). This study uses a qualitative approach with a case study method strengthened by an Analytical Hierarchy Process to examine the application of the electronic-based THIS concept. The results of this study provide policy advices for the preparation of a new ministerial regulation about integrated planning and develop a business process related to the planning flow within the Ministry of Transportation which accommodates the THIS concept.

Keywords: Interoperability; E-Government; Integrative; Performance

ARTICLE INFO

Received: October 20, 2022

Received in revised form:

January 31, 2023

Accepted: April 19, 2023

doi: [10.46456/jisdep.v4i1.349](https://doi.org/10.46456/jisdep.v4i1.349)



This is an open access article under
the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license
© Dharmawan (2023)

THE JOURNAL OF INDONESIA SUSTAINABLE DEVELOPMENT PLANNING

Published by Centre for Planners'
Development, Education, and Training
(Pusbindiklatren), Ministry of National
Development Planning/ National
Development Planning Agency (Bappenas),
Republic of Indonesia

Address: Jalan Proklamasi 70,
Central Jakarta, Indonesia 10320
Phone: +62 21 31928280/31928285
Fax: +62 21 31928281

E-mail:
journal.pusbindiklatren@bappenas.go.id

Supported by Indonesian Development Planners
Association (PPPI)

Please cite this article in APA style as:

Dharmawan, I. (2023). The Concept of Electronic-Based THIS Planning in the Ministry of Transportation. *The Journal of Indonesia Sustainable Development Planning*, 4(1), 86–98. <https://doi.org/10.46456/jisdep.v4i1.349>

1. Introduction

There are many studies in the environment of public organizations which examine strategic planning (Haq, 2014; Komariah, 2020; Permatasari, 2017). However, it is infrequent for research to review the concept of Thematic, Holistic, Integrative, and Spatial (THIS) based planning, especially by integrating it with technological developments and information in an electronic-based government system. Within the Ministry of Transportation, it is important to study the application of electronic-based planning, considering that the transportation sector has a vital role in encouraging various government strategic plans. Especially, since the development of the world wide web, the attention of public organizations has also led to adaptation efforts based on web technology in carrying out government affairs such as in the form of Government to Citizen (G2C), Government to Government (G2G), Government to Business (G2B), and Government to Employee (G2E) (Davison et al., 2005). This concept is a consequence of the implementation of Government Regulation Number 17 of 2017 on Synchronization of National Development Planning and Budgeting Processes which implies the application of the money follow program principle by using the THIS concept as an answer to the non-optimal application of the money follow function principle in planning and budgeting of public organizations.

The implementation of performance-based budgeting with the money follow function approach has not yet encouraged the achievement of optimal policy outputs and has resolved problems in development planning in Indonesia, one of which is related to the disconnection of planning and budgeting. The introduction of performance-based budgeting provides an opportunity to improve the quality of planning and to develop budget plans that link strategic planning objectives with resource processes in the medium term (Blazely, 2018). One of the drawbacks of implementing this approach is the lack of coordination, synergy, and integration between work units, both vertical and horizontal relationships (Kurniawan, 2019). The money follow function approach requires each work unit to carry out its duties according to its respective functions based on the existence and formation of the work unit. In the end, every public organization and work unit only focuses on their respective duties and functions. Meanwhile, public issues are multisectoral and multiregional, not mono-sectoral or mono-regional. The application of the money follow function approach, although it is an important element of implementing performance-based budgeting, is not without its drawbacks. One of the drawbacks of implementing this approach is the lack of coordination, synergy, and integration between sectors. This is because with the money follow function approach, each institution or sector operates independently and only focuses on their duties and functions. This then made the central government start thinking about changing the budgeting approach from the money follow function to the money follow program.

The transportation sector has a vital role in encouraging a country's economic activity, especially the development of transportation infrastructure, such as trains, ports, and airports, which has multi-sectoral and multi-regional issues (Yulia & Ningsih, 2020). The role of these various transportation facilities as nodes is to connect one region with another (Prideaux, 2000). Of course, the effectiveness of transportation as a driver of economic activity requires an optimal transportation sector planning effort. The Ministry of Transportation in its planning has carried out various innovations through the application of electronic-based planning.

The current application system related to the planning system within the Ministry of Transportation includes e-budgeting; e-performance; e-monitoring and reporting; and ap2kp (Application for Appraisal of Achievement and Calculation of Employee Performance). As a series of systems that are cyclical and related to one another, these applications are still running partially and are not integrated with one another. The absence of interoperability between one planning application and other planning applications is one of the obstacles to the money follow program approach with the THIS principle which is held within the Ministry of Transportation. As a result, planning through the application is still running partially and could not run optimally as an electronic planning system. In the practice of planning implementation, there are often multiple input jobs related to the same data, eventually creating inefficiencies in both time and human resources in planning activities within the Ministry of Transportation. Under these conditions, there must be an effort to optimize planning within the Ministry of Transportation through an in-depth study of the implementation of planning with the electronic-based THIS concept.

This concept ensures that the implementation of public organizations is carried out by prioritizing the principles of collaboration, coordination, and synergism, especially because the current government's

focus is not on the vision and mission of each Ministry. Currently, each Ministry does not have to have its own vision and mission. The President only needs to prepare, so the task of the Ministry is to realize the President's vision and mission. So, the money follow program approach at the Ministry of Transportation must focus on achieving national priority programs listed in the strategic targets in the national mid-term planning document.

According to [Wasono and Maulana \(2018\)](#), the main problems with development planning in Indonesia are the disconnection of planning and budgeting; synergies between central and regional planning; discrepancies in the discussion schedule between the central government and the regional governments; and planning and budgeting are not yet evidence-based. At the very least, it is hoped that this problem can be resolved by optimizing the optimal money follow program principle through the THIS concept by adopting technology and information. In the era of disruption, with the development of technology and information, the public sector is also required to innovate in solving public affairs. This condition is increasingly interesting to study the application of planning with the THIS concept to answer the problems of planning based on e-government implementation in the context of planning at the Ministry of Transportation.

In general, studies on planning in public organizations cover more on strategic planning topics, and very limited studies review the THIS concept in electronic-based planning in public organizations in Indonesia. This study tries to examine the application of the electronic-based THIS concept in the Ministry of Transportation. The obstacles that arise in encouraging the optimization of the application of THIS concept are studied by also examining the issue of planning regulations within the Ministry of Transportation. Currently, planning within the Ministry of Transportation relies on Ministerial Regulation No. 112 of 2017 concerning guidelines and planning processes within the Ministry of Transportation. Public policy analysis through regulatory impact assessment is carried out to assess whether the regulation is still relevant to be applied or needs to be changed to optimize the implementation of electronic-based planning with the THIS concept.

2. Methods

2.1 Data Collection Methods

This research uses a qualitative approach to assessing the problem of applying the electronic-based THIS concept in implementing planning within the Ministry of Transportation. The inductive mindset explores the issues related to the research topic under study. The study used is a case study of THIS-based planning activities electronically at the Ministry of Transportation. Research using the case study method requires a detailed, in-depth, thorough study of a particular object, in this case the application of the THIS concept in planning at the Ministry of Transportation. Case study studies can strengthen issues in research by knowing patterns from the data obtained ([Denzin & Lincoln, 2010](#)). Studies through the case study method have a detailed, in-depth, thorough study pattern of an object over a certain period ([Umar, 2004](#)). Case studies were carried out using data triangulation techniques to test the validity of the data obtained. Triangulate different data resource of information by examining evidence from the source and using it to build a coherent justification for themes and use rich, thick description to convey the findings.

Primary and secondary data were used to look for actual tendencies to obtain valid data and comprehensive studies. Primary data were obtained from field records and interviews with informants relating to electronic THIS-based planning at the Ministry of Transportation. The informants in this study were all key persons in the planning divisions in each sub-sector, namely in the land transportation, sea transportation, air transportation, and rail transportation sub-sectors. Meanwhile, secondary data were obtained by conducting documents, studies through literature data and other studies related to the concept of THIS, and by implementing electronic-based planning in public organizations, such as regulations related to planning process and several policy papers related to planning policies in Ministry of Transportation.

In addition, this study also uses an Analytical Hierarchy Process (AHP), using an expert choice application to give weight to a more qualitative cost and benefit analysis. To determine the most optimal alternative action options based on the cost and benefit analysis, the Analytical Hierarchy Process method is a general theory of measurement developed by Thomas L. Saaty. AHP is used in the regulatory impact

assessment in order to derive the ratio scale through three pairwise comparisons. Pairwise comparisons can be prepared by means of actual measurements or relative measurements of the degree of liking or interest or feelings. Therefore, the AHP method is very helpful for getting the ratio scale of things, such as alternative action options in regulatory impact assessment documents which are difficult to measure quantitatively and even very difficult to monetize by measuring through opinions, feelings, behaviors, and beliefs.

2.2 Data Processing

Several stages are carried out in processing research data, namely through data reduction, data presentation, data discussion, and data conclusions. Data reduction is carried out by collecting appropriate factual data and then summarizing the main things relevant to the research topic. Data reduction is carried out by categorizing data related to the problems of applying the THIS concept electronically within the Ministry of Transportation. The summarized data is presented in a thinking framework through tables and diagrams, which is continued with the discussion. Empirical tendencies that arise and are further studied are concluded to provide common threads and policy recommendations from the studies carried out. The regulatory impact assessment by AHP method is conducted by several steps to provide three alternative options as follows:

- a. Each sub-sector within the Ministry of Transportation is distributed a policy choice questionnaire to provide an assessment of three alternative options for action related to the costs and benefits generated qualitatively.
- b. Each sub-sector fills in the weights based on the Saaty scale with three pairwise comparisons, namely:
 - 1) Which is better, the status quo/do nothing option and the Ministerial Regulation No. 112 of 2017 revision.
 - 2) Which is better, the status quo/do nothing option and the drafting of the New Ministerial Regulation.
 - 3) Which is better between the revised PM 112/2017 option and the drafting of the New Ministerial Regulation.
- c. Then it is concluded and given a weighting, which one is better between the three alternative action options analyzed through the expert choice program.

2.3 Data Analysis

This study conducted a data validity test to obtain data that can be accounted for academically. In quality research, with compound and dynamic research, it is scarce to find repeated consistency over the reality under study as it was. Therefore, to validate the data, qualitative studies are carried out through the following stages: 1) triangulation of data sources that differ from information by examining evidence from sources and using them to build coherent justifications for themes; 2) researchers applying member checking, namely by showing descriptions, research data, and study results in front of participants to check whether they feel that the report/description/theme is accurate; 3) carried out the creation of a rich, dense, in-depth, and precise description related to the results of the study; 4) clarifying the biases that the researchers may bring to the study; 5) presenting different or damaging information to try to give another view of an unavoidable reality in the study; researched and poured it out in detail about the units analyzed in a dense narrative (Creswell & Creswell, 2017). The AHP analysis method is certainly different from the descriptive and inferential quantitative methods, which by the rule of thumb, there are certain standards for generalization. The AHP method is more of an effort to help key persons to formulate which policies from the available alternatives are the most ideal choices compared to others on the basis of indicators that are both qualitative and quantitative.

2. Results and Discussions

Synchronization of planning and budgeting is a problem for various public organizations in Indonesia, as revealed by [Wasono and Maulana \(2018\)](#). [Fadillah et al. \(2020\)](#) said that more synchronous planning and budgeting are directly proportional to the improving performance of the organization. The planning and budgeting synchronization is required to use the THIS concept as one of the consequences of implementing the money follow function. The THIS concept is encouraged to create further synchronization between national planning and budgeting, where the synchronization aspect is one of the weaknesses of implementing the money follow function. Although the money follow program approach has been implemented with the THIS concept, it is necessary to optimize good internalization within the Ministry of Transportation. Currently, the obstacle to implementing this concept is the weak integration between work units within the planning scope at the Ministry of Transportation. Therefore, efforts are needed to optimize the THIS concept by optimally running an electronic-based government system.

The scramble of planning and policy in the transportation sector is multiregional, considering that it relates to mobility and connectivity. Related to its multisectoral nature, the construction of these transportation facilities also requires collaboration with other sectors such as public works, agrarian and spatial planning, as well as other sectors. Therefore, it takes a collaborative effort that must have been reflected in the planning and budgeting process. In transportation, constructing airports, ports, railway stations, and terminals also requires synergism with other ministries or institutions such as the Ministry of Public Works, the National Land Agency, the National Development Planning Agency, and others. As a first step to creating collaboration with external parties, the main thing that needs to be done first is to build synergism and collaboration within the Ministry of Transportation. Collaboration and synergism in implementing public policies will not necessarily arise without these values being truly internalized starting from the planning process. [Ansell and Gash \(2008\)](#) identify a series of factors that are crucial within the collaborative process itself, that consist of three factors include face-to-face dialogue, trust building, and the development of commitment and shared understanding. While [Emerson et al. \(2012\)](#) see collaboration as not only a formal series initiated by public bodies but also a hybrid process in which in practice, the public, private, and civil society sectors merge into one and establish mutually beneficial partnership governance based on common goals.

The planning process, indeed, cannot be separated from budgeting activities. The two things are different but become one unit in the planning activity. The performance-based budgets aim to encourage the creation of effectiveness and efficiency in public spending by linking public sector organizations' funding with the results achieved through the systematic use of performance information ([Bastian, 2006](#); [Last & Robinson, 2009](#); [Sulistio, 2010](#)).

The principle of interoperability should not be ignored by encouraging the optimal application of the THIS concept through implementing an electronic-based government system. This principle can be implemented if integration is created between every planning application owned by the Ministry of Transportation, such as e-planning & budgeting; e-performance; e-monitoring & reporting; up to ap2kp (Application for Appraisal of Achievement and Calculation of Employee Performance). However, implementing planning through an electronic-based government system has not run optimally, especially in embodying the concept of THIS as a mandatory Government Regulation Number 17 of 2017 concerning Synchronization of the National Development Planning and Budgeting Process. Therefore, by encouraging the application of interoperability in the use of planning applications, it is expected that planning and budgeting can carry out thematic, holistic, integrative, and spatial concepts.

Interoperability is a necessary condition for inter- and intra-departmental sharing and a common interface for citizens, which will precede data management (and therefore knowledge management ([Hodgkinson, 2002](#))). Indeed, this interoperability problem is a common problem related to data exchange between different systems or applications, especially in e-government. Therefore, when each stage in the planning cycle can exchange data, the implementation of e-government can reach the maturity stage, and the concept of THIS can be carried out more optimally. In Law Number 25 of 2004 concerning the National Development Planning System, it is stated that the planning stages include the preparation of plans, the determination of plans, the control of the implementation plan, and the evaluation of the implementation of the plan ([Winarni et al., 2021](#)). Integrating the planning system is needed to simplify and prevent repeated data input for each application ranging from e-planning & budgeting, e-performance, e-

monitoring & reporting, up to ap2kp. However, by exchanging data between these applications, planning and budgeting can be carried out more optimally, and the concept of THIS can be better organized. These principles, namely thematic, holistic, integrative, and spatial principles based on Government Regulation Number 17 of 2017, have the following meanings: 1) Thematic, which is interpreted as the focus of detailed planning up to priority programs; 2) Holistic, which is interpreted as a comprehensive approach from upstream to downstream; 3) Integrative, that is, it is interpreted as integration in who does what to the integration of funding sources; and 4) Spatial, which is interpreted as the interrelationship of the location function of various integrated activities.

With the demands of changing approaches or paradigms related to planning and budgeting in Indonesia, which previously applied the concept of money follow function to become a money follow program, the government must apply the concept of THIS. The synchronization is needed to encourage the integration of planning and budgeting in achieving the President's vision and mission as outlined in the National Medium-Term Development Plan (RPJMN) and RKP through the concept of THIS (GOI, 2017). The money follow program is a holistic, integrative, thematic, and spatial development planning approach to various Priority Programs that aligns with the President's vision and mission. It is also stated that the purpose of implementing the money follow program is to realize the results of the implementation of development that the wider community can directly feel. The THIS principle elaborates the theme of Development Priorities into comprehensive planning starting from upstream to downstream of a series of activities carried out in the integration of stakeholders and funding, as well as in a unified region and interrelationships between regions.

The application of a performance-based budget uses the principle of the money follow function. However, with the Government Regulation Number 17 of 2017 concerning Synchronization of the National Development Planning and Budgeting Process, in the end, the principle of implementing a performance-based budget is directed at the application of money follow programs. By emphasizing more integrative and synergistic aspects, each sector does not run independently in national priority programs. With the preparation of a Ministerial Regulation on integrated planning, the principles used are the principles that also become guidelines in Government Regulation Number 17 of 2017 concerning Synchronization of the National Development Planning and Budgeting Process.

In the practice of performance-based budgeting, goal orientation is an important issue that needs to be considered according to various studies conducted by Cholifah (2013), Puspitasari (2013), and Siagian (2014). Technology and information according to various studies also have an important role and are the main factors in encouraging the success of performance-based budgeting (De Jong et al., 2013; Sullivan, 2016; Zinyama & Nhema, 2016). The importance of implementing integrated planning using the THIS principle is one of the important efforts in encouraging the successful implementation of performance-based budgeting.

Performance-based budgets have become more flexible than traditional budgeting system which emphasizes costs rather than results or performance, and the use of budgets focuses on achieving outcomes. In general, performance-based budgets emphasize achieving results and outputs from programs/activities by increasing the efficiency and effectiveness of using limited resources. Then, a performance-based budget that prioritizes more efficient budget allocations encourages spending efforts by allocating resources at the highest priority to achieve the expected results. In general, the logic used is that considering the budget is limited, strategic steps are needed to determine development priorities in planning documents, considering that all things cannot be done due to budget constraints. Preparing the priority list ultimately helps to optimize the resulting outcomes further, considering and seeing the urgency of the public needs that are priorities to be resolved immediately through the preparation of planning documents, especially in transportation matters. In implementing the concept of allocative efficiency in the planning and budgeting system, several things must be met first, namely: 1) The existence of a medium-term target framework (related to fiscal discipline); 2) There are well-designed priorities in achieving development goals both nationally and sectorially; 3) There is the authority to spend, change, and save allocations to budget users; 4) The government encourages reallocation to improve the effectiveness of the program. Budget users are obliged to evaluate activities and report on the resulting performance and outcomes; 5) A cabinet review that focuses on changing existing policies or new policies exists.

In general, implementing the planning process within the Ministry of Transportation is expected to refer to the concept of THIS while still being compiled systematically, directed, integrated, comprehensive, and responsive to changes in transportation affairs. Other principles that are also covered in the draft Ministerial Regulation on the Integrated Planning Process within the Ministry of Transportation also apply the principles in the implementation of an electronic-based government system (SPBE), with reference to the following principles: 1) Effectiveness, namely optimizing the utilization of resources that support successful SPBE to suit needs; 2) Integration, namely the integration of resources that support SPBE; 3) Sustainability, namely the sustainability of SPBE in a planned, gradual, and continuous manner in accordance with its development; 4) Efficiency, namely the optimization of resource utilization that supports appropriate SPBE; 5) Accountability, namely clarity of function and accountability of the SPBE; 6) Interoperability, namely coordination and collaboration between Business Processes and between electronic systems, in the context of exchanging data, information, or SPBE Services; and 7) Security, namely the confidentiality, integrity, availability, authenticity, and nonrepudiation of resources that support SPBE.

The process of accelerating the implementation of performance-based budgets with the principle of money follow programs cannot be optimal only by compiling new regulations as guidelines but also requires application development through the preparation of business processes related to integrated planning. Therefore, with the application of planning with an electronic-based THIS concept, the integration process, spatial mapping, and thematic can be more easily realized. In the end, planning can be more holistically created.

In the analytical hierarchy process, the weighting steps are carried out on three alternative options. From the results of the expert choice analysis, it is concluded that the policy option for the preparation of a new Ministerial Regulation is preferred over other alternative action options, with the weights of each option, namely:

- a. Status Quo or do nothing (8.4%)
- b. Revised Ministerial Regulation No. 112 of 2017 (26.8%)
- c. Preparation of New Ministerial Regulation (64.8%)

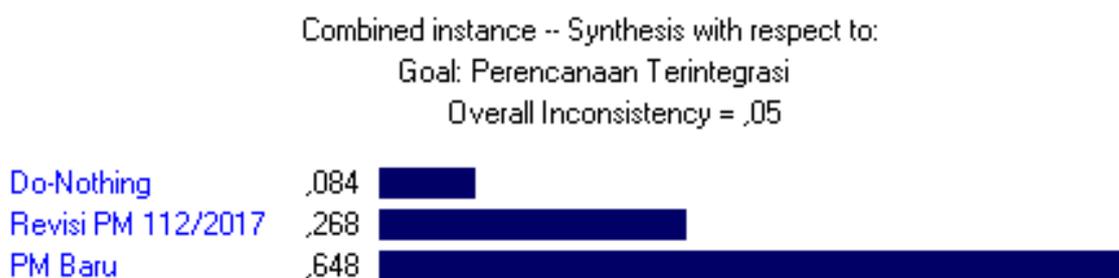


Figure 1. Final Weight for Preparing a New Ministerial Regulation

The assessment was obtained from 18 key persons from each sub-sector within the Ministry of Transportation who had filled out the AHP questionnaire which was distributed to all sub-sectors. There are at least some notes that need to be considered in the preparation of a new Ministerial Regulation,

- a. There needs to be stages that become mandatory, such as a feasibility study to determine the location, DED to calculate the technical design, and funding requirements as well as environmental documents.
- b. It is necessary to add the preparation of planning documents (feasibility studies, OBC, FBC) to KBPU Solicited, considering that there is APBN funding allocated. This is necessary considering the state's limited financial condition.
- c. It is necessary to consider the addition of route planning, especially the pioneering route. Considering that there is no basis that is used as a basis for proposals from the regions every

year that can be accommodated in the medium-term route planning document in line with the Strategic Plan.

- d. It is necessary to re-elaborate the position of the rolling plan in planning.
- e. There needs to be an initiative clause to accommodate proposals that are initiative in nature, so that they can be adjusted to the rolling plan document.

In addition to these points being considered, of course, the spirit of the new Ministerial Regulation which is expected in general by every sub-sector within the Ministry of Transportation will certainly be able to regulate more comprehensive planning matters. Then, in more substantive terms, the regulation related to the new integrated planning is expected to create a more effective and efficient planning in terms of time, personnel, and cost by prioritizing the THIS principle. The application of existing planning regulations does not guarantee the creation of an integrated planning process, nor does it regulate planning mechanisms in a comprehensive manner. Therefore, it is felt that compiling regulations related to integrated planning is the most relevant option to answer the problem of demands for presenting integrated and comprehensive planning.

In implementing new policies, mapping strengths and weaknesses is needed. The advantage of drafting new regulations related to integrated planning and preparing business processes for electronic-based planning guidelines by applying the THIS principle is that it can accelerate more measurable planning work within the Ministry of Transportation. However, of course, some weaknesses need to be mitigated. These weaknesses are related to building a collective or shared understanding that existing issues related to the principles of THIS-based planning need to be considered and resolved through the preparation of new Ministerial regulations accompanied by the preparation of business processes. Moreover, optimization initiatives that come not from the leadership often require more efforts to convince all work units considering that later the new Ministerial regulation policy will become a guideline for all units within the Ministry of Transportation in carrying out activities related to planning.

It is necessary to encourage the use of technology and information. Adopting how to work in electronic-based planning becomes a thing that can be realized. The policies offered by preparing new regulations on planning governance within the Ministry of Transportation are more of this pattern. It is aimed at institutionalizing how this planning works in planning activities within the Ministry of Transportation. Institutional, in this case, is not defined as a physical institution in the form of an organization but as a series of rules and regulations that ensure that the THIS concept's internalization in planning activities within the Ministry of Transportation can run optimally.

In preparing for adopting technology and information, it is necessary to prepare business processes related to the planning flow within the Ministry of Transportation. Business processes are essential to structure, considering that they contain a series of interrelated steps assigned to each stakeholder for the planning work. With business processes, each stakeholder performs a specific task that is their specialty to achieve concrete goals. Business processes present standard stages or steps that become guidelines. However, future standards can also be optimized according to development needs related to the planning process and stages.

Preparing a new ministerial regulation is expected to review and make the concept of THIS a guideline or principle in every planning process within the Ministry of Transportation. It is a form of affirmation that every stage and planning process within the Ministry of Transportation must be principled and emphasize integrative aspects, then prioritize spatial, thematic, and holistic elements. Therefore later, it can be mapped out that one of the planned programs and activities targets of specific national strategic programs or other priority programs that are the vision and mission of the President.

None of the programs and policies are mono-regional. Under the current conditions, what is built in one region also has an impact on other regions. The construction of an airport or port in a city can have an economic impact on other regions, and this spatial principle needs to be considered, especially in planning documents that are nodes, such as in the construction of railway networks, as well as toll roads. In the integrative aspect, no programs or activities in the public sector are mono-sectoral, so integration is needed while still paying attention to integration with other sectors. For example, in the construction of irrigation, although it looks like simple physical work, it involves many elements that must be integrated or synergized. It deals with public works, spatial planning and gardening, transportation, electricity, drinking water, and others.

Integration is not only sectoral but also related to the principle of financing in implementing public affairs. In development planning, the government may cooperate with the government of other countries, the private sector, and civil society. It is related to the application of governance principles, so the implementation of public affairs may be planned with the concept of Business to Business, Government to Government, Government to Business, and others. The terms solicited and unsolicited in the scheme of the construction financing of physical projects are also known. Solicited is an infrastructure project initiated by the government and offered to Business Entities for cooperation. The initiation is based on government planning documents, but is sought to be funded by the private sector. These things began to be thought of and became solutions considering that the government's budget was limited. At the same time, the public's need for transportation facilities such as ports, airports, stations, and others was very urgent.

Furthermore, it is known as the unsolicited scheme, where the project's initiation comes from the private sector and must be accompanied by a feasibility study with precise planning. Then, the government will discuss whether the project is accepted or not. The discussion among government institutions is harmonizing the planning documents with guidelines in carrying out development, such as medium-term planning documents, spatial planning documents, environmental planning documents, and others, such as spatial plans and national and regional planning documents, detailed spatial planning plans, and others.

The key actor in implementing planning that puts forward the concept of THIS based on electronics is the Planning Bureau, which is indeed in charge of the coordinator of specialized work units related to planning within the Ministry of Transportation. The Center for Technology and Communication of the Ministry of Transportation has a role as a technology and communication development manager, especially in planning applications ranging from e-planning & budgeting, e-performance, e-monitoring & reporting to ap2kp (staffing information system).

It is expected that the preparation of the new ministerial regulation will later review and make THIS concept a guide or principle in every planning process within the Ministry of Transportation. It is a form of affirmation that every stage and process of planning within the Ministry of Transportation must be principled and emphasize the integrative aspect, then prioritize spatial, thematic, and holistic elements. Therefore later, it can be mapped out one of the planned programs or activities targets of specific national strategic programs or other priority programs that become the President's vision and mission.

Planning within the Ministry of Transportation is currently not optimally integrated, so it is still partial between units. Creating synchronization between planning documents requires intensive communication efforts to create strong coordination. Such conditions often create inefficiencies in time. [Dunn \(2017\)](#) says that the more actors involved in the planning process tend to be, the more difficult it is to create deals. It is coupled with the absence of a legal umbrella that provides guidelines for an integrated planning process within the Ministry of Transportation.

Although it has been mandated in Government Regulation Number 17 of 2017 concerning Synchronization of Processes and Budgeting for National Development, planning by applying THIS concept has not run optimally within the Ministry of Transportation. It is evidenced by the absence of integration in every planning step, especially physical planning. In preparing the physical plan document, the understanding of the feasibility study document, the master plan document, and the DED differs in content between each sub-sector. This has become quite difficult to encourage integration in transportation planning considering that currently transit-oriented development is also being encouraged, which requires integration between modes. The aim of developing the area with the TOD concept is to reduce dependency on the use of private vehicles by increasing the use of mass public transportation and promoting development without creating sprawl ([Adhianti et al., 2020](#); [Anissa et al., 2020](#)). Although each sub-sector has different characteristics, in terms of planning concept, it certainly requires an understanding of the arrangement of the content of the planning documents that must be included.

It is expected that the application of the THIS concept, which has not been running optimally, considering that the existing planning is still spatial, can be more effectively run. Planning needs are integrative internally within the Ministry of Transportation and integration between ministries and institutions. It is considered that in constructing infrastructure facilities and infrastructures such as ports, terminals, airports, and stations, they must be coordinated and integrated with cross-institutions and

ministries. As has happened before in practice, the construction of airports and ports also requires other supporting infrastructure, such as public roads and toll roads. Therefore, after it is built, the community is also easier to access existing transportation facilities, so that the function of the presence of transportation facilities such as ports and airports can function more optimally.

The construction of new ports and airports is often in peripheral areas. Thus, in general, access roads are needed to support community accessibility, logistics network (railways, toll roads, conveyors), and other superstructures such as adequate length of wharves and other port facilities which, in this case, are important factors in the port business (Ahmadi et al., 2016; Haris & Takdi, 2017; Rionaldi, 2014). Moreover, there are currently many developments, transportation facilities, and infrastructure, which are priority programs of the central government. With the principle of money follow programs that focus on national development activities or activities referring to strategic priorities based on the vision and mission of the President-elect, the next issue is related to collaboration and coordination between each Ministry and Institution. Because there are no mono-sectoral or mono-regional public issues, the principle of THIS becomes a demand that must be carried out correctly.

"Thematic" in Government Regulation No. 17 of 2017 is the determination of priority themes in a planning period. Then what is meant by "holistic" is the thematic elaboration of the President's program into comprehensive planning starting from upstream to downstream of a series of activities. Furthermore, what is meant by "integrative" is an effort to integrate the implementation of the President's program planning which is seen from the role of ministries/institutions/regions/other stakeholders and efforts to integrate various sources of funding. Meanwhile, "spatial" elaborates the President's program in one unified region and the interrelationship between regions. The concept needs to be applied to improve the quality of money follow programs. In short, thematic is a detailed planning focus up to priority programs, holistic as a comprehensive and comprehensive approach (upstream-downstream), integrative is the integration of who does what and the integration of funding sources, and spatial is defined as the linkage of the location functions of various integrated activities.

The integration process, which has been an obstacle and has not been optimal within the Ministry of Transportation, certainly impacts the coordination process in the outer scope with other institutions or ministries. To optimize the planning process integrated with budgeting, it is undoubtedly necessary to optimize the use of THIS method in the planning process within the Ministry of Transportation. Ways that can be done include creating planning governance that focuses more on accommodating planning with thematic, integrative, holistic, and spatial work patterns.

The planning mechanism with the THIS model must be carried out because it is the mandatary of a planning system based on money follow programs. In contrast, government priority programs cannot be run by mono-sectoral or mono-regional alone. Meanwhile, money follow function-based planning tends to make public organizations and existing work units work partially and be more sectoral egos and regional egos.

Several alternative policies can be proposed in preparing planning guidelines within the Ministry of Transportation, including 1) Preparation of new regulations regarding planning governance with THIS concept within the Ministry of Transportation; 2) Developing a business process related to the planning flow within the Ministry of Transportation which accommodates the THIS concept.

So far, the backbone of planning governance within the Ministry of Transportation is using Ministerial Regulation 112 of 2017 concerning Guidelines and Planning Processes. However, in some implementation practices, the regulation has not been able to guarantee thematic, holistic, integrative, and spatial planning. Although THIS approach has been mandated in Government Regulation Number 17 of 2017, the concept has not been spelled out, so it is pervasive in how planning works within the Ministry of Transportation through a Ministerial Regulation that regulates the planning process at the Ministry of Transportation.

Currently, because the rules or regulations regarding planning are partial and go hand in hand with the implementation of Ministerial Regulation 59 of 2011, Ministerial Regulation 112 of 2017, Ministerial Regulation 9 of 2019, Ministerial Regulation 41 of 2019, and Ministerial Regulation 85 of 2020, respectively, it will involve many separate stakeholders as well, so that there may be inconsistencies. It is more difficult to reach agreements in planning practices within the Ministry of Transportation. Meanwhile, it would be nice if the arrangements regarding planning within the Ministry of Transportation

were integrated so as not to create loopholes in the inconsistency of planning documents, so that the arrangements could be one breath away, especially in the interest of encouraging the application of the THIS concept.

The preparation of planning documents has not been well integrated between several technical directorates, and the technical planning process takes a very long time. There are several planning studies whose scope of work overlaps with other studies. Therefore, repetitive work causes time and cost losses, and these empirical practices should certainly not be allowed to drag on. The principle of planning the concept of THIS is on the understanding related to integration. It is the primary thing and needs to be realized first. Then afterward, thematic, holistic, and spatial can follow and be easier to achieve, so the current homework is to improve planning within the Ministry of Transportation to make it more THIS patterned, namely by ensuring integration between each stage of planning. Basically, this is done to improve the administrative system, which according to [Jumame et al. \(2015\)](#); [Mubar \(2013\)](#); [Muryati \(2015\)](#) improvements in terms of the administrative system have a positive influence on performance-based budgeting, which is certainly related to optimizing the implementation of the plans that have been prepared. Meanwhile, planning and budgeting are two things that cannot be separated.

With the arrangements related to integrated planning, it is expected that the concept of THIS-based planning within the Ministry of Transportation can be adequately realized. It is because integrating all planning stages makes it possible to directly implement spatial and thematic-based planning in achieving optimal implementation of the President's vision and mission or strategic goals. Planning aimed at supporting the targets of national strategic programs, as well as related to the development of special economic zones, as well as related to national tourism strategic areas, can be easily measured by encouraging more integrated planning work between each stage, each work unit to between or across ministries and institutions.

Conclusions

The results of studies that have been prepared with various existing analyses to realize more optimal THIS-based planning require the adoption of technology and information in it. So far, planning within the Ministry of Transportation is still running partially. Therefore, stronger and clearer guidelines are needed to regulate the stages of planning that are more integrated by paying attention to the implementation of electronic-based planning. By prioritizing the integration aspect as a first step, it is hoped that efforts to realize more spatial, thematic, and holistic planning can be more easily embodied and appreciated by all sub-sectors and work units within the Ministry of Transportation.

Recommendation

It is necessary to prepare a business process as a standard guideline to simplify and provide an overview related to operational standards in THIS-based planning. Therefore, there is no doubt and confusion in planning by each work unit, and it creates more uniformity for more optimal integration efforts in every planning activity carried out. Two policy suggestions must be implemented to encourage synchronization of planning and budgeting and ultimately encourage organizational performance. First, through the preparation of new regulations related to integrated planning that are more comprehensive, covering all stages of development planning, starting from planning, determination of the plan, controlling the implementation of the plan, and evaluation of the implementation of the plan. Second, the Ministry of Transportation needs to arrange business processes related to the information management system or application sub-systems used in every planning stage. Therefore, they are well integrated and able to apply THIS concept, so that national priority programs can be implemented optimally to encourage the central government's vision and mission in the implementation of development, especially in the transportation sector.

Reference

- Adhianti, R. A. C., Ronauli, R., & Kezia, L. (2020). Integrasi Antarmoda dengan penerapan transit-oriented development pada kawasan Kota Lama Semarang. *Warta Penelitian Perhubungan*, 32(2), 113-124.
- Ahmadi, N., Kusumastanto, T., & Siahaan, E. I. (2016). Strategi pengembangan pelabuhan berwawasan lingkungan (greenport) studi kasus: Pelabuhan Cigading-Indonesia. *Warta Penelitian Perhubungan*, 28(1), 9-26.
- Anissa, I. N., Saladin, A., & Rahmah, N. (2020). Konsep integrasi stasiun Lrt Bekasi Timur dengan kawasan mixed-use Lrt City Bekasi Timur. *Jurnal Arsitektur ZONASI*, 3(3), 391-398.
- Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of public administration research and theory*, 18(4), 543-571.
- Bastian, I. (2006). *Sistem akuntansi sektor publik* (2 ed.). Penerbit Salemba Empat.
- Blazely, A. (2018). *OECD best practices for performance budgeting*.
- Cholifah, C. (2013). Rancangan model efektifitas penggunaan anggaran berbasis kinerja dinas pendapatan daerah Provinsi Jawa Timur. *Wiga: Jurnal Penelitian Ilmu Ekonomi*, 3(2), 20-30.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Davison, R. M., Wagner, C., & Ma, L. C. (2005). From government to e-government: A transition model. *Information Technology and People*, 18(3), 280-299. <https://doi.org/10.1108/09593840510615888>
- De Jong, M., van Beek, I., & Posthumus, R. (2013). Introducing accountable budgeting: Lessons from a decade of performance-based budgeting in the Netherlands. *OECD Journal on Budgeting*, 12(3), 1-34.
- Denzin, K. N., & Lincoln, Y. S. (2010). *Handbook of qualitative research*. Pustaka Pelajar.
- Dunn, W. N. (2017). *Public policy analysis: An integrated approach*. Routledge.
- Emerson, K., Nabatchi, T., & Balogh, S. (2012). An integrative framework for collaborative governance. *Journal of public administration research and theory*, 22(1), 1-29.
- Fadillah, A. Y., Aziza, N., & Martiah, L. (2020). Pengaruh sinkronisasi perencanaan dan penganggaran, kualitas sumber daya manusia dan komitmen organisasi terhadap kinerja pemerintah daerah Kabupaten Bengkulu Tengah. *JURNAL FAIRNESS*, 10(1), 63-78.
- GOI. (2017). Government regulation 17 of 2017 concerning synchronization of the national development planning and budgeting process. <https://peraturan.bpk.go.id/Home/Details/51467/pp-no-17-tahun-2017>
- Haq, A. (2014). Perencanaan strategis dalam perspektif organisasi. *Jurnal INTEKNA: Informasi Teknik dan Niaga*, 14(2).
- Haris, A., & Takdi, M. (2017). Pengaruh pelabuhan larea-rea di Kabupaten Sinjai terhadap kondisi sosial masyarakat sekitarnya. *Jurnal Ilmiah Administrasita'*, 8(1), 47-54.
- Hodgkinson, S. (2002). *Managing an e-government transformation program* [Conference session]. Working Towards Whole-of-Government Online Conference, Canberra, September,
- Jumame, S. T., Karamoy, H., & Poputra, A. T. (2015). Faktor-faktor yang mempengaruhi penyusunan anggaran pendapatan dan belanja daerah berbasis kinerja di Pemerintah Kota Sorong. *JURNAL RISET AKUNTANSI DAN AUDITING" GOODWILL"*, 6(2).
- Komariah, Y. (2020). Perencanaan strategis (renstra) di sektor publik. *Jurnal Wacana Kinerja: Kajian Praktis-Akademis Kinerja dan Administrasi Pelayanan Publik*, 5(1), 35-41.
- Kurniawan, T. (2019). *The cultural transformation of government spending through money follow program budget planning for the allocation of village funding* [Conference session]. The First International

Conference On Islamic Development Studies 2019, ICIDS 2019, 10 September 2019, Bandar Lampung, Indonesia,

- Last, M. D. P., & Robinson, M. M. (2009). *A basic model of performance-based budgeting*.
- Mubar, N. R. (2013). *Analisis faktor-faktor yang mempengaruhi penyusunan anggaran pendapatan dan belanja daerah berbasis kinerja (studi pada pemerintah Kabupaten Enrekang)* Universitas Hassanuddin].
- Muryati. (2015). Pengaruh komitmen organisasi, sistem administrasi, sumberdaya, penghargaan, sanksi, dan motivasi terhadap penyusunan APBD berbasis kinerja di Kabupaten Batanghari. *Jurnal Akuntansi & Keuangan Unja*, 1(2).
- Permatasari, A. (2017). Analisa konsep perencanaan strategis. *Jurnal Ilmiah Magister Administrasi*, 11(2).
- Prideaux, B. (2000). The role of the transport system in destination development. *Tourism management*, 21(1), 53-63.
- Puspitasari, R. (2013). Studi penganggaran berbasis kinerja pada pemerintah Provinsi Jawa Timur, Jawa Barat dan DKI Jakarta. *Jejaring Administrasi Publik*, 5(2), 356-369.
- Rionaldi, R. (2014). Analisis pemilihan lokasi dan manajemen strategis pengembangan pelabuhan laut Di Provinsi Riau. *Warta Penelitian Perhubungan*, 26(8), 477-489.
- Siagian, A. (2014). Perencanaan anggaran berbasis kinerja dalam upaya meningkatkan capaian kinerja. *Jurnal Jejaring Administrasi Publik*, 4(2), 488-495.
- Sulistio, E. B. (2010). Proses penyusunan anggaran berbasis kinerja (studi pada pemerintah Kabupaten Way Kanan). *Jurnal Ilmiah Administrasi Publik dan Pembangunan*, 1(1), 39-49.
- Sullivan, C. (2016). *Performance-based budgeting*. Research Department, Minnesota House of Representatives.
- Umar, H. (2004). *Metode Riset ilmu administrasi negara, pembangunan, dan niaga*. PT Gramedia Pustaka Utama.
- Wasono, A., & Maulana, M. (2018). Tinjauan kritis perencanaan dan penganggaran pembangunan di Indonesia. *Laporan Hasil Penelitian, Working Paper*, 27.
- Winarni, E., Ahmad, A. A., & Suharno, S. (2021). Community participation of development planning in Purbalingga Regency. *ICORE*, 5(1).
- Yulia, A., & Ningsih, E. S. (2020). Penerapan anggaran berbasis kinerja (performance based budgeting) dalam pengelolaan keuangan Daerah Aceh. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi*, 5(1), 50-58.
- Zinyama, T., & Nhema, A. G. (2016). Zimbabwe performance-based budgeting: Concepts and success factors. *Public Policy and Administration Review*, 4(1), 33-60.