

# THE IMPLEMENTATION OF SPATIAL PLANNING POLICY THROUGH SPATIAL UTILIZATION TO REALIZE SUSTAINABLE REGIONAL SPATIAL ORDER

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## Abstract

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This study aims to know how the application of spatial planning policies is implemented in managing infrastructure development and spatial planning in Indonesia, especially Central Java. The research method used is the normative juridical method. The results of the study are: 1) Spatial planning policies consist of processing, controlling, financing, monitoring, and evaluating; 2) Spatial planning regulatory policies are held for a) creating mature and directed plans in the development of regional and state spatial planning; b) providing legal certainty for all stakeholders in carrying out their duties and responsibilities for the environment, society, and country; c) realizing justice for all stakeholders and society. Implementation of space utilization is carried out through application suitability of utilization activities and program synchronization included in planning for regional and state economic and business improvement. The aim of this research is to provide academic input to the Indonesian government, especially the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency in creating proportional and comfortable regional governance in accordance with the mandate of the regulation and the 2010–2050 state development plan.

**Keywords:** Environmental Law, Policy, Safety, Space

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## 1. INTRODUCTION

The Indonesian state has been established as a welfare state, as evidenced by its objectives outlined in the Preamble to the Constitution of the Republic of Indonesia. These objectives have been achieved through a series of national development initiatives, as specified in Law of The Republic of Indonesia No. 17 of 2007 on Long-Term National Development Plan of 2005–2025. The overarching aim of national development is to promote sustainable development across all facets of society, the nation, and the state, in order to achieve the national goals articulated in the Preamble to the 1945 Constitution of the Republic of Indonesia (Raghuram & Sharma, 2019).

According to Hakim et al. (2021), there exists a continuous sequence of development endeavors that involve a range of developmental undertakings aimed at progressively enhancing the standard of living across successive generations. The implementation of these efforts is carried out in the context of meeting the needs of the present without compromising the ability of future generations to meet their needs. As per the Appendix to Act No. 17 of 2007, Chapter II, which pertains to the general conditions associated with spatial planning, it can be inferred that the spatial planning scenario in Indonesia is presently undergoing a crisis. Spatial planning crises occur because development in an area (Darmawati et al., 2015, p. 378) is often carried out without

following spatial planning, does not consider sustainability and environmental carrying capacity, and does not pay attention to the vulnerability of the region to natural disasters (Djakaria & Husein, 2017). Basically, to plan and control spatial planning, two principles can be used (Hakim et al., 2021):

1. Identify and provide definitions for the different functions that are required to be executed at the regional and local levels.

2. The objective is to ascertain the national policy framework that will facilitate the resolution of diverse developmental issues at the appropriate level or hierarchy, encompassing the national, regional, and local tiers.

Spatial planning involves the creation of a spatial plan that offers a comprehensive outline of the allocation of space, the intended activities to be carried out within that space, and the timeline for such activities. Regional spatial planning offers a number of advantages, including achieving integrated development within a specific regency or urban area and achieving a harmonious development of the district or city area in relation to its surrounding environment. It is imperative to guarantee the implementation of high-quality spatial planning at the district or municipal level.

Law No. 26 of 2007 pertaining to Spatial Planning has been promulgated by the state in the context of spatial planning. The promulgation of this legislation can be attributed to the archipelagic nature of the Unitary State of the Republic of Indonesia, which encompasses land, sea, air, and subterranean domains, as well as resources. The management of this expansive territorial expanse necessitates prudent, efficient, and effective spatial planning principles, as outlined in Article 3 of the full text of the legislation. The ultimate objective of such measures is to preserve the quality of the national territory space, thereby promoting the attainment of general welfare and social justice, in accordance with the constitutional tenets of the 1945 Constitution of the Republic of Indonesia.

Article 3 of Act No. 26 of 2007 stipulates that the objective of spatial planning implementation is to establish a secure, pleasant, efficient, and sustainable national territorial expanse, founded on the Archipelagic Outlook and National Resilience (Hasnati et al., 2018):

1. The achievement of a harmonious relationship between infrastructure and the environment.

2. The implementation of a cohesive approach to utilizing both natural and artificial resources, while taking into consideration the role of human resources.

3. Achieving the safeguarding of space operations and mitigation of adverse environmental effects resulting from space utilization.

As stipulated in Act No. 26 of 2007 on Spatial Planning, the minimum requirement for Green Open Space (*Ruang Terbuka Hijau* — RTH) in urban areas is 30% of the total city area. This is intriguing as every municipality faces constraints in meeting this requirement. Conversely, the provision of green open space is a crucial measure in anticipation of the imminent demand for land reform and as a means to preserve the equilibrium of the urban environment, given that a significant proportion of the city's expanse, amounting to 30%, has been predominantly converted into residential zones.

Additional determinants that impact the execution of policies include bureaucratic framework, allocation of resources, effective communication, and attitude (Frastien et al., 2019).

The contribution to the government in addition to reminding the mandate of the law in carrying out spatial development properly, is also a warning to any various actions of disobedience carried out by the developer against the green open space policy and regulation. For example, the developer did not provide an area for green open space, different forms of green open space, changes to green open space usage, and unavailability of green open space. Some of the reasons underlying this disobedience are the factor of not complying with the selective law; economy (Alberini et al., 2022; Putri et al., 2023); and personal or organizational interests which must be strictly enforced and given sanctions by the government (Putri et al., 2023) so that the implementation of spatial planning policy through spatial utilization to realize sustainable regional spatial planning can be carried out correctly (Setyati & Utomo, 2015).

Basically, every region, be it the state, province, or district/city, has a spatial plan. The most important thing from this is planning to see the spatial structure of a city. Based on this, in short, the Regional Spatial Plan (*Rencana Tata Ruang Wilayah* — RTRW), has an important role in the process of building or buying property. This means that one must first understand the regional spatial plan to build or buy a property, it cannot be arbitrary. Meanwhile, in Indonesia, the concept of regional spatial planning is based on infrastructure development. It is hoped that in the future the infrastructure will be able to accelerate the development of a region.

There are still gaps in the implementation of spatial planning policies in Indonesia, particularly in terms of land use for development that does not follow sustainability principles, neglects environmental carrying capacity, and ignores the vulnerability of the region to natural disasters. There is also a lack of research on the factors influencing policy implementation, including bureaucratic structure, resources, communication, and disposition.

The aim of the research is to analyze the implementation of spatial planning policies in Indonesia and to identify the factors that influence policy implementation. The research questions include:

*RQ1: What are the challenges in implementing spatial planning policies in Indonesia?*

*RQ2: What are the factors that influence policy implementation, and how do they affect the implementation of spatial planning policies?*

*RQ3: How can policy implementation be improved to ensure the wise, efficient, and effective management of Indonesia's territorial space?*

The study applies the theoretical framework of policy implementation and the conceptual framework of sustainable development to analyze the implementation of spatial planning policies in Indonesia. The aim of the research is to identify the challenges in implementing spatial planning policies, the factors that influence policy implementation, and how policy implementation can be improved to ensure the wise, efficient, and effective management of Indonesia's territorial

space. The study found that the challenges in implementing spatial planning policies include the lack of coordination and communication between stakeholders, insufficient allocation of resources, and limited capacity of local governments. The study also identified the factors that influence policy implementation, including bureaucratic structure, resource availability, communication, and stakeholder involvement. To improve policy implementation, the study recommends strengthening coordination and communication between stakeholders, increasing resource allocation, and enhancing the capacity of local governments. The study's contribution is significant as it provides insights into policy implementation and offers recommendations on how to improve the wise, efficient, and effective management of Indonesia's territorial space for sustainable development.

The remainder of this paper is structured as follows. Section 2 presents the literature review. Section 3 explains the research methods used in the study. Section 4 reveals the results of spatial planning policies, while Section 5 discusses the policy implementation and regional utilization. Section 6 provides the conclusion and future research perspectives.

## 2. LITERATURE REVIEW

The urban spatial planning regulations in Indonesia began to be considered since the city of Jayakarta (Batavia) was controlled by the Dutch in the early 17th century, but intensive regulations were only developed in the early 20th century, which will be the main reference when the Dutch government begins to enter the government management area at that time. The first regulation that governed the city of Batavia was De Statuten van Batavia 1642 issued by the Dutch East India Company (*Verenigde Oostindische Compagnie* – VOC). The substance of this regulation regulates, among other things, the construction of roads, bridges, and other buildings, the authorities and responsibilities of the city government (Hasan & Zulkaidi, 2018). According to Hasan and Zulkaidi (2018), this regulation can be considered quite complete because it includes regulations for various elements of cities, buildings, and infrastructure.

In 1903, the Dutch East Indies government established *Wethoudende Decentralisatie van Bestuur in Nederlandsch-Indie*, Stb. 1903 No. 329. This Decentralization Law regulates the formation of city and regional administrations. The regulation of city government tasks in this law includes the construction and maintenance of roads and waterways, inspection of buildings and housing, housing repairs, and city expansion. Based on this law, several autonomous municipal governments called “gementes” were formed. In 1905, the *Localen-Raden Ordonantie*, Stb. 1905 No. 191, the substance regulates the authority of the city government to determine development requirements.

Hasan and Zulkaidi (2018) state that the preparation of urban development regulations in Indonesia cannot be separated from the efforts of Ir. Thomas Karsten. In his activities (1920–1940), he produced solid foundations for the development of urban development regulations, including the preparation of general plans, detailed plans, and building regulations (Hasan & Zulkaidi, 2018).

Thomas Karsten in his report to the Decentralization Congress on the development of Dutch East Indies cities (*Indiese Stedebouw*) in 1920, apart from containing the basic concepts of urban development and the role of the city government, also set practical guidelines that could be used as guidelines for the preparation of various types of plans (Coté, 2017). An important regulation for urban planning which was passed in 1926 was *Bijblad 11272*. This regulation became the basis for urban planning activities before the War of Independence. This regulation authorizes the city government to grant government land to third parties if the land has been designated for housing in the urban structure plan.

Cobbinah et al. (2019) posit that the attainment of the Sustainable Development Goals is contingent upon the implementation of effective urban planning and management practices. The integration of climate change into urban plans has been impeded by various implementation challenges, including insufficient financial resources, inadequate enforcement of planning regulations, logistical issues, and weak institutional capacity. The present research advocates for the adoption of a participatory methodology and the establishment of well-defined institutional responsibilities in order to effectively execute policies. The research suggests a strategy of consensus-building and negotiation as a means of incorporating climate change considerations into the process of urban planning. Furthermore, it necessitates the involvement of multiple stakeholders through consultation and participatory methods to ensure optimal engagement.

According to Pisoni et al. (2019), Sustainable Urban Mobility Plans (SUMPs) represent a significant policy tool for enhancing mobility and enhancing the standard of living within urban areas. This study presents a simulation of the implementation of SUMPs in 642 urban areas across Europe. The results indicate a notable impact on urban background concentrations of PM<sub>2.5</sub>, with an increase of up to 2%, and NO<sub>2</sub>, with a rise of nearly 4%. Nevertheless, it is imperative to take into account further factors when assessing the comprehensive effects of SUMPs on the urban landscape, such as the exclusion of electric mobility alternatives. This finding is consistent with a prior study conducted by Thunis et al. (2018), which assessed the impact of transportation on PM<sub>2.5</sub> levels across various European cities. It is imperative to consider the spatial and temporal resolution of the effects of SUMPs. Functional Urban Areas (FUAs) exhibit lower population and network density as compared to their primary urban centers. Moreover, the concentrations at a traffic location within these areas can be as much as 60% higher than the urban background concentrations. This study focuses on the impact of SUMPs on urban background concentrations of PM<sub>2.5</sub> and NO<sub>2</sub>. The implementation of SUMPs has been found to have a favorable influence on various dimensions, including enhanced quality of life, decreased noise levels, and increased safety in urban areas. Supplementary measures at the national or European level may serve as a complement to the SUMPs. Two models, namely T-NET/TRANSTOOLS and SHERPA, are valuable tools for assessing the potential scope of impacts and evaluating the efficacy of various measures in comparison.

The study conducted by Hargreaves et al. (2019) presents an integrated modelling framework that examines the impact of spatial planning on the distribution of residential properties, as well as the variability in roof areas and household sizes. The feasibility and water-saving potential of rainwater harvesting (RWH), household greywater recycling (GWR), and communal systems would be significantly impacted. Projections pertaining to residential densities, precipitation levels, and water costs may serve as indicators of the potential for water conservation in the future of alternative water supply (AWS), as influenced by spatial planning. This has the potential to facilitate the identification of the most appropriate form of AWS for a given geographic area, as well as foster collaboration between regulatory bodies and water utility companies.

Grădinaru and Hersperger's (2019) analysis of 14 urban regions offers overarching suggestions for improving the incorporation of green infrastructure (GI) within strategic spatial plans. It is advisable to provide unambiguous explanations of the concept of GI and its constituent elements. Additionally, it is recommended to establish effective collaboration between GI and other related domains. The relational aspects of GI should also be given due consideration. Furthermore, it is essential to enhance multi-scale planning to ensure the optimal utilization of GI. Finally, GI should be utilized as a comprehensive framework to design a network that can cater to the needs of both human and ecological systems.

In their study, Daunt et al. (2021) examined the correlation between spatial planning tactics and the level of plan execution in the context of urban expansion and ecological preservation in a coastal area of the Brazilian state of São Paulo. The study determined that the implementation of the urban use strategy effectively facilitated the development of denser patterns of newly constructed urban areas. However, it was not effective in preventing the emergence of isolated areas. Subsequent policy measures should aim to tackle the escalating need for fundamental amenities and accommodations while facilitating metropolitan expansion within the innermost regions of urban centers. The present study provides valuable contributions to the understanding of the mechanisms and results of spatial planning in developing regions of the world. The implementation regulations for the Laws of Housing that have been stipulated are Government Regulation No. 69 of 1996 concerning the Implementation of Rights and Obligations, as well as Forms and Procedures for Community Participation in Spatial Planning; and Regulation of the Minister of Home Affairs No. 9 of 1988 concerning Procedures for Community Participation in the Spatial Planning Process in the Regions.

With regard to the spirit of reform and regional autonomy, various laws regarding regional autonomy have been enacted, including Law No. 22 of 1999 concerning Regional Government, which was later updated with Government Regulation (*Peraturan Pemerintah* — PP) No. 21 of 2021 concerning Implementation of Spatial Planning and Act No. 26 of 2007 concerning Spatial Planning.

### 3. RESEARCH METHODOLOGY

The present study employs a normative juridical research methodology, which involves an examination of theoretical approaches, concepts, and relevant laws and regulations pertaining to the subject matter. This approach is commonly referred to as a statutory approach. The study employed a descriptive-analytical research design to outline the relevant laws and regulations pertaining to legal theories and the practical application of positive law in addressing the formulated problems. The utilization of law as the primary point of reference is a fundamental aspect of policy implementation, encompassing urban spatial planning.

The purpose of analytical descriptive research is to offer an account or summary of the process for ascertaining relinquished land entitlements in accordance with Government Regulation No. 21 of 2021 on the Execution of Spatial Planning and Act No. 26 of 2007 on Spatial Planning, without engaging in hypothesis testing or drawing broad inferences. The study gathered primary data via interviews and field surveys, while secondary data was sourced from books, the official website of the Ministry of Spatial Planning and Agrarian Affairs (<https://www.atrbpn.go.id/>), and relevant government documents (Imran, 2013).

### 4. RESULTS

#### 4.1. Spatial planning policy in Indonesia

Therefore, the important features of the policy are: a) policy is a government action that has the goal of creating community welfare; b) is made through systematic stages so that all the main variables of all problems to be solved are covered; c) must be implemented by the implementing organization (unit); d) needs to be evaluated so that it is known whether it is successful or not in solving the problem. The characteristics of good public policy planning are (Pasumah et al., 2018):

1. Is a positive and pro-active response to the public interest.
2. Is the result of public consultation, public debate or in-depth analysis, rational and intended for the public interest.
3. Is the result of participatory management which remains open to input and input as long as it has not been established as a policy.
4. Will produce a policy plan that is easy to understand, easy to implement, easy to evaluate, clear indicators so that the accountability mechanism is easy too.
5. Is the product of long thought that has considered various things that influence it.
6. Is planning that has a forward vision and broad dimensions that is not devoted to mere momentary interests.

The public policy regarding spatial planning is regulated in Act No. 26 of 2007 concerning Spatial Planning, to implement this regulation the government has issued PP No. 21 of 2021 concerning the Implementation of Spatial Planning, in general

provisions Article 1 states, among other things (Isradjuningias, 2017):

1. Spatial planning is a system of spatial planning processes, spatial utilization, and spatial utilization control.

2. Spatial planning is a procedural approach aimed at establishing the spatial configuration and distribution of physical space. This process encompasses the formulation and identification of spatial blueprint.

3. The spatial plan is the result of spatial planning.

4. Spatial utilization refers to the endeavor of achieving the spatial structure and pattern in alignment with the spatial plan by means of developing and executing programs and securing their funding.

5. Efforts to achieve systematic spatial planning involve the regulation of spatial utilization.

6. The implementation of spatial planning entails a concerted endeavor to realize the objectives of spatial planning by means of executing spatial planning, spatial utilization, and regulating spatial utilization.

Spatial planning regulation policies are designed to achieve three main objectives. Firstly, they aim to establish a sense of order in the implementation of spatial planning. Secondly, they seek to provide legal certainty to all stakeholders involved in carrying out their respective duties and responsibilities, as well as their rights and obligations, in the context of spatial planning implementation. Finally, these policies strive to promote fairness and equity for all stakeholders in the implementation of spatial planning. Spatial planning encompasses the development of both general and detailed spatial plans. The former includes the preparation of national, provincial, district, and urban area spatial layout plans. Elaborate spatial plans encompass the following: spatial plans for islands and archipelagos (Ong & Pambudi, 2014).

Implementation of space utilization as stipulated in Article 97 of Government Regulation No. 21 of 2021 is carried out through the implementation of the suitability of space utilization activities and the implementation of synchronization of space utilization programs. Implementation of suitability of space utilization activities includes:

- a) suitability of space utilization activities for business activities;
- b) suitability of space utilization activities for non-business activities;
- c) suitability of space utilization activities for activities that are nationally strategic.

The synchronization of spatial use programs is carried out by the central government and local governments. The synchronization of spatial use programs produces documents: synchronization of the five-year medium-term space utilization program and synchronization of the one-year short-term space utilization program. The document becomes an input for the preparation of the development plan and the implementation of a review in the context of revising the spatial plan (Junef, 2017).

PP No. 21 of 2021 also regulates spatial use control in Article 147 which is intended to encourage the realization of spatial planning in accordance with spatial planning and to encourage everyone

to comply with spatial planning, utilize space according to spatial planning, comply with the provisions stipulated in the suitability of space utilization activities (Kautsary & Shafira, 2019).

#### 4.2. The implementation of spatial planning policy through spatial utilization to realize sustainable regional space

The implementation of spatial use is regulated in PP No. 21 of 2021 concerning the Implementation of Spatial Planning, Article 97, says that the implementation of spatial planning is carried out through a) implementation of the suitability of space utilization activities and b) implementation of synchronization of space utilization programs. Implementation of suitability for spatial use activities is further regulated in the Regulation of the Minister of Agrarian Affairs and Spatial Planning/ Head of the National Land Agency No. 13 of 2021 concerning Implementation of Compliant Spatial Utilization Activities and Synchronization of Spatial Utilization Programs. Article 1, paragraph (6) states that spatial use is an effort to realize spatial structures and patterns in accordance with spatial planning through the preparation and implementation of programs and their financing. All spatial utilization activities must first have appropriate spatial utilization activities (*Kesesuaian Kegiatan Pemanfaatan Ruang* — KKPR), consisting of a) KKPR for business activities; b) KKPR for non-business activities, and c) KKPR for those that are nationally strategic. The KKPR is issued in the form of an electronic document accompanied by an electronic signature in accordance with the provisions of the laws and regulations that are valid and binding and constitute valid evidence (Lanya & Subadiyasa, 2012).

*Implementation of the suitability of spatial utilization activities for business activities* is carried out through confirmation of the conformity of space utilization activities (*Konfirmasi Kesesuaian Kegiatan Pemanfaatan Ruang* — KKKPR) and approval of suitability of space utilization (*Persetujuan Kesesuaian Kegiatan Pemanfaatan Ruang* — PKKPR). KKKPR for business activities is granted based on the suitability of the location plan for space utilization activities with detailed spatial plans that have been integrated through online single submission (OSS), which is an integrated electronic system managed and organized by the OSS institution for administering risk-based business licensing. Approval of suitability for spatial use is given in the event that a detailed spatial plan for spatial use has not yet been provided or a detailed spatial plan has not been integrated into the OSS.

*Implementation of the suitability of spatial utilization activities for non-business activities* includes:

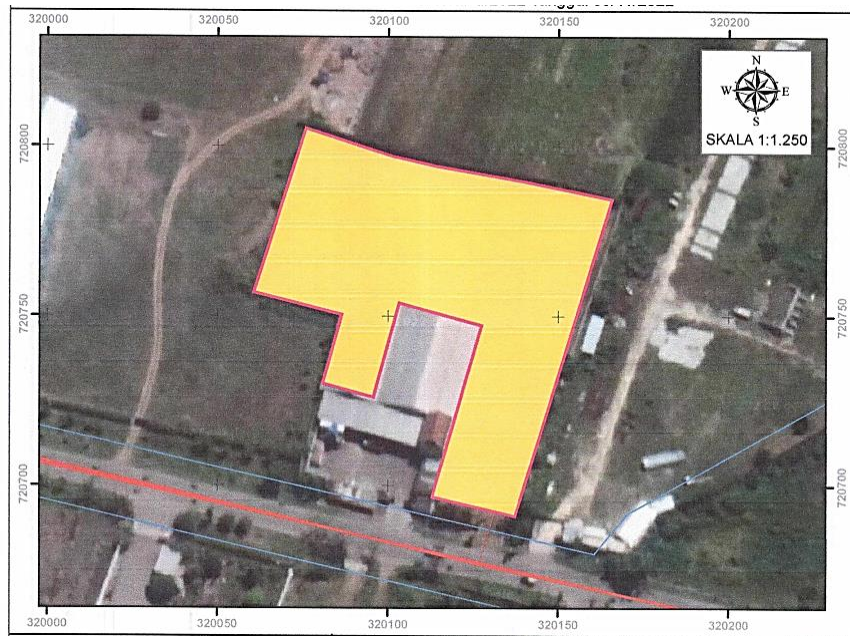
1. Space utilization activities for private residences, places of worship, social foundations, religious foundations, educational foundations, or humanitarian foundations.

2. Confirmation of conformity of spatial utilization activities for non-enterprising activities is given based on the suitability of the spatial utilization activity location plan with the detailed spatial layout plan.

Implementation of the suitability of spatial utilization activities for activities that are nationally strategic in nature is given for implementation of spatial utilization activities that are nationally strategic in nature included in the national spatial

layout plan, island spatial plan, national strategic area spatial plan, and district/city regional spatial plan. For example, it can be seen from Figure 1 below.

**Figure 1.** Map of land technical considerations for PKKPR publishing activities for business activities No. 208/PTP-33.21.400.NT.01.021X1I2022



Source: Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (<https://kab-demak.atrbpn.go.id/>).

Based on the information provided, it can be inferred that the appropriateness of activities related to the utilization of space is determined by an electronic document that is accompanied by a legally binding electronic signature. This document serves as valid evidence and is obtained after obtaining technical considerations related to the land, as stipulated in the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the Land Agency No. 12 of 2021 regarding Land Technical Considerations. According to Article 1 of this regulation, land technical considerations refer to an analysis of land use administration that takes into account various factors such as the terms and conditions of land tenure, use and/or utilization, spatial planning, the nature and type of rights, soil quality, land availability, and the condition of land-related issues. Technical considerations related to land are taken into account for various activities:

1. The issuance of suitability for space utilization activities.
2. The recognition and endorsement of land ownership, specifically pertaining to land that has been naturally or artificially formed through the process of sedimentation in bodies of water such as rivers, lakes, beaches, and newly emerging islands, and the regulation of land control by the government.
3. The execution of policies pertaining to land use and utilization.

The land technical considerations for issuance of suitability for land use activities are given to applicants, namely Indonesian citizens and legal

entities consisting of a) businessmen; b) public, and c) ministries/agencies (Magsi et al., 2017).

The land technical considerations for the issuance of suitability for spatial use activities are given in the framework of the issuance of:

1. Implementation of the suitability of space utilization activities for business activities.
2. Implementation of the suitability of space utilization activities for non-business activities.
3. Implementation of the suitability of space utilization activities for activities that are nationally strategic.

The land technical considerations are carried out by the Land Office, to carry out these activities a Land Technical Consideration Team is formed, consisting of (Junef, 2017):

1. Head of the Land Office as the person in charge.
2. Head of Section who has duties in the field of structuring and empowerment, as chairman and member concurrently.
3. Functional Position Group which has duties in the field of land management, as secretary and concurrently a member.
4. The technical element of the land office as a member.

The Land Technical Consideration Team has the following tasks:

1. Examining data on the subject and object of the application, including verifying the number and area of land parcels owned by the subject.
2. Prepare land data related to the application object.
3. Carry out field surveys.



4. Processing and analyzing land data and field survey results.

5. Give consideration to the physical and juridical aspects in the discussion meeting on the processing results of data analysis.

6. Prepare minutes of land technical considerations.

7. Prepare the concept of land technical considerations which will be signed by the Head of the Land Office.

## 5. DISCUSSION

Attachment I of the Minister of Agrarian Affairs and Spatial Planning/Head of the Land Agency No.12 of 2021 prescribes the Technical Guidelines for

the Administration, Ownership, Use, and Utilization of Land. These guidelines aim to facilitate the use and utilization of land without compromising the public interest, impeding the use of surrounding land and upholding the principles of sustainability and justice. The guidelines are aligned with spatial plan designation directives and are in compliance with relevant laws and regulations.

The utilization of land as a means to achieve spatial planning objectives is exemplified in the Demak District Regional Regulation No.1 of 2020, which pertains to the amendment of Regional Regulation No.6 of 2011 concerning the Demak Regency Spatial Plan for the period of 2011-2031. The instructions pertaining to the utilization of space encompass:

**Table 1.** Spatial planning in the Demak City

No.	Direction of space utilization	Type
1	Directions for the embodiment of the room structure	1) The manifestation of the service system. 2) The manifestation of the transportation infrastructure network system. 3) The manifestation of the telecommunications network system. 4) The manifestation of the hydrological infrastructure network framework. 5) The manifestation of additional infrastructure network systems.
2	Directions for the embodiment of spatial patterns	A <i>protected area</i> is a directive that safeguards its subordinate areas by means of controlling activities or objects that impede the infiltration of rainwater into the ground, organizing various land and area businesses and/or activities that safeguard their subordinate areas owned by the community, conducting coaching programs, and reaching out to the community to preserve the area. Additionally, greening efforts may also be employed. The <i>cultivation area</i> comprises various directions for the establishment of different types of land use. These include guidelines for the establishment of production forest areas, agricultural areas, mining areas, designated industrial areas, tourism areas, rural settlements, settlement areas, urban settlement areas, and green open spaces.

**Table 2.** Industrial allocation area

No.	Districts	Wide of area
1	Bonang	About 359 (three hundred and fifty-nine) hectares
2	Demak	Approximately 92 (ninety-two) hectares
3	Gajah	Approximately 6 (six) hectares
4	Karangtengah	More or less 1,050 (one thousand fifty) hectares
5	Karanganyar	Approximately 92 (ninety-two) hectares
6	Karangawen	Approximately 203 (two hundred and three) hectares
7	Mijen	Approximately 251 (two hundred and fifty-one) hectares
8	Mranggen	Approximately 163 (one hundred sixty-three) hectares
9	Sayung	Approximately 5313 (five thousand three hundred and thirteen) hectares
10	Wonosalam	Approximately 116 (one hundred and sixteen) hectares

The use of land utilization must pay attention to the principle of justice, among others to:

1. Location planning and development must consider the provision of relatively sufficient land and or other forms of cooperation for the development of community life in and around the applicant's location (Nugraha et al., 2013).

2. The land use and utilization plan must enable the development of the economic life of the surrounding community, including a) by providing economic access for the community to better use and utilize their land and b) opening opportunities for community involvement (partnership) in efforts to better use and utilize their land.

3. Land use and utilization plans must enable the development of the social life of the surrounding community, including a) through the involvement of community participation in planning activities and b) through the involvement of community participation in the implementation of activities.

The use and utilization of land as part of the implementation of spatial planning must pay

attention to the principle of sustainability by taking into account the capabilities of the land. The principles of sustainability in land use, among others (Mokodongan et al., 2019):

1. Site planning and development must not control water sources or springs, drastically changing the landscape.

2. For the surrounding area, springs, rivers, lakes, or other natural bodies of water: a) It is not permissible to carry out land use and utilization activities that have an impact on the loss or reduction of quality (breadth or depth); b) Must not damage or close; c) Not allowed to hoard/backfill/reclamation; d) Cannot pollute.

3. The use and utilization of land in protected areas must pay attention to the limitations of carrying capacity, ecosystem linkages, biodiversity, and environmental functions.

4. The use and utilization of land in the area around historical sites must not disturb/damage/change/eliminate the existence of the site.

5. The use and utilization of land on a flat plane or with a slope of 0%-3%, is required to provide/pay attention to water management provisions, for example for land that is periodically inundated it is mandatory to build a water system such as adequate drainage, for continuously inundated land as a catchment area natural waters may not be stockpiled, reclaimed or built up.

6. The use and utilization of land on slopes of 15%-40%, must be carried out with appropriate mechanical and vegetative engineering to prevent erosion and landslides.

7. The use and utilization of land on slopes of more than 40% is limited to activities that have a protective function.

In order to realize the objectives of spatial planning, including the realization of sustainable territorial space, there must be good cooperation between stakeholders, communities/business actors, to be orderly in the implementation of spatial utilization in accordance with the spatial plan, taking into account the principles of land use, namely the principle justice. Location planning and development must consider the provision of relatively sufficient land and or other forms of cooperation for the development of community life in and around the applicant's location. Plans for land use and utilization must enable the development of the economic life of the surrounding community, plans for use and utilization of the land must enable the development of the social life of the surrounding community. The principle of sustainability, by taking into account the capabilities of the land, for example, planning and development of a location, may not control water sources or springs, or change the landscape on a large scale. Protected areas must pay attention to the limitations of carrying capacity, ecosystem linkages, biodiversity, and environmental functions, the use and utilization of land in the area around historical sites must not disturb and eliminate the existence of the site. This matter must be considered carefully by all parties, both from the government and development implementers in the field, so that the spatial goals are not chaotic and are neatly structured. All of these objectives are the same with results from many researchers (He et al., 2023; Yu & Li, 2020; Bazant-Fabre et al., 2022; Pleger et al., 2018).

## 6. CONCLUSION

In conclusion, this research shows that spatial planning policies consist of processing, controlling, financing, monitoring, and evaluating. Spatial planning regulatory policies are held for creating mature and directed plans, providing legal certainty in duties and responsibilities, and realizing justice for all stakeholders and society. The implementation of space utilization is carried out through implementing suitability of utilization activities and program synchronization included in planning for regional and state economic and business improvement. The contribution to the government, in addition to reminding the mandate of the law in carrying out spatial development properly and also a warning to any various actions of disobedience, were carried out by the researcher against the green open space policy and regulation with strictly enforced and given sanctions. The hope is that after the government implements spatial planning properly and sustainably, in the future, the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency can improve technology and electronic registration and monitoring, making it easier to serve the public in an integrated and systematized manner.

Future research could focus on evaluating the effectiveness of the recommendations made in this study for improving policy implementation and the wise, efficient, and effective management of Indonesia's territorial space. Additionally, future research could explore the use of technology and electronic registration and monitoring for spatial planning and land management and its potential impact on improving service delivery to the public in an integrated and systematized manner. One limitation of this study is that it used a qualitative case study methodology, which limits the generalizability of the findings to other contexts. Another limitation is that the study focused on the challenges and factors influencing the implementation of spatial planning policies, without exploring the perspectives and experiences of the stakeholders involved in the implementation process.

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