

# Spatial Planning Policy in the Control Aspect of Urban Area Development

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## Abstract

The rapid development of urban areas has the potential to cause various problems, including environmental degradation, excessive population density, and infrastructure imbalances. Spatial planning policies are an important key in controlling urban development to achieve a balance between economic growth and environmental sustainability. However, challenges in implementing these policies are often related to inter-agency coordination and compliance with existing regulations. This research aims to analyze the effectiveness of spatial planning policies in controlling urban development. This research uses a qualitative approach with data originating from relevant previous studies, which are then analyzed to gain a deeper understanding. The conclusion of this research shows that spatial planning policies play a vital role in controlling sustainable urban development. Integration of spatial planning policies with other policies, such as transportation and housing, is needed to create effective synergies. Active participation of all stakeholders, including civil society, is essential in the policy-making process to ensure sustainability and fairness. The main challenges identified relate to divergent sectoral interests and a lack of inter-agency coordination. Sustainable urban development requires a joint commitment to overcome these challenges and implement comprehensive and inclusive spatial planning strategies.

**Keywords:** *Spatial Planning, Urban Areas, Public Policy.*



## A. INTRODUCTION

The development of urban areas in various parts of the world, including Indonesia, has experienced rapid growth in line with increasing urbanization. The uncontrolled urbanization process has given rise to various complex problems that affect the quality of life of city residents and environmental sustainability. One of the main problems faced is irregular land use and massive land conversion which often does not take into account aspects of environmental sustainability and social welfare (Surya et al., 2020).

In recent decades, the growth of infrastructure and residential development in urban areas has eroded green land, reduced public open space, and increased vulnerability to natural disasters, such as floods and landslides. This condition is exacerbated by the lack of control over development which often only prioritizes short-term economic interests without considering the long-term impacts on the environment and society (Lourenco et al., 2020).

In addition, the growth of urban areas that are not well organized also contributes to increased air and water pollution, severe traffic jams, and increasing social inequality. Traffic jams, for example, not only waste time and energy but also increase carbon emissions which impact climate change. Meanwhile, increasing social

inequality can be seen from the gap in access to quality housing, health services, education, and public spaces between high and low-income groups (Sharifi & Khavarian-Garmsir, 2020).

Considering the complexity and urgency of existing problems, spatial planning policies are very critical. Effective spatial planning can be considered an important tool in controlling urban development to make it more focused and sustainable. However, the implementation of spatial planning policies often faces challenges, ranging from conflicting sectoral interests, and lack of coordination between government agencies, to low compliance with existing regulations (Gura et al., 2023).

In this context, the importance of an in-depth study of spatial planning policies in the aspect of controlling urban development becomes very relevant. It is hoped that this study can provide a broader understanding of the dynamics that occur, identify problems comprehensively, and develop effective strategies to overcome these problems. In addition, by understanding the various challenges and obstacles in implementing spatial planning policies, it is hoped that opportunities for improvement and innovation can be identified in controlling more sustainable and inclusive development (Duivenvoorden et al., 2021).

Economic growth, which is one of the national development goals, cannot be separated from the urban development process. However, without proper control, such development can cause more problems than benefits. Therefore, research on spatial planning policies in the context of controlling urban development is very important to find a balance between economic growth, social justice, and environmental sustainability.

## **B. LITERATURE REVIEW**

### **1. Spatial Planning**

Regarding spatial planning theory itself, many experts have provided descriptions, and editorially they are not the same, but substantively they have the same thing. Spatial planning, with an emphasis on "planning" is the arrangement of the spatial arrangement of a region/region (region) so that requirements are created that are economically, socio-culturally, and politically beneficial, as well as beneficial for the development of the people of that region (Sowl et al., 2022). Article 1 of law no. 26 of 2007 concerning spatial planning, what is meant is "a container that includes land space, sea area and air space including space within the earth as a single territorial unit, where humans and other creatures live, carry out activities and maintain their survival".

Article 1 of Law No. 26 of 2007 states that space is divided into several categories, including:

- a. Land space is the space located above and below the land surface, including the surface of land waters and the land side of the lowest sea line
- b. Marine space is the space located above and below the sea surface starting from the sea side from the lowest sea side including the seabed and the part of the earth beneath it, over which Indonesia has jurisdictional rights.

- c. Space is space located above land space and/or ocean space around the territory of the State and attached to the earth, over which the State of Indonesia has jurisdictional rights (Bauer-Marschallinger et al., 2021).

With this emphasis, it is hoped that the function of the state can be developed as mandated by Article 2 paragraph (2) Number 5 of 1960 concerning the Principles of Agrarian Law, which includes first, the administration of the allocation, use, supply, and maintenance of space; (in the three-dimensional sense: earth, water, and air), and the riches contained therein. Second, regulate the relationship between people and space, and third determine and regulate the legal relationship between people and legal acts regarding space (Roestamy et al., 2022).

According to Yunus, spatial planning or spatial planning is an instrument in monitoring development and the living environment, especially preventing environmental damage and pollution; So, broadly speaking, spatial planning law can be said to be a law that regulates procedures, aspects that must be taken into account, spatial planning processes, space utilization, and control of space utilization (Świąder et al., 2020). From a formal juridical perspective in Indonesia, spatial planning law has of course been crystallized as statutory regulations. The results that have been ratified and become official legal products are Law Number 26 of 2007 concerning Spatial Planning, as well as Government Regulation Number 26 of 2008 concerning National Regional Spatial Plans (Putri et al., 2022).

## **2. Space Utilization Control**

Space utilization control is an activity related to monitoring and controlling the implementation of plans as a follow-up to the preparation or existence of a plan so that space utilization follows the spatial planning plan. Ibrahim stated that by controlling space utilization, the possibility of deviations in space utilization can be identified and avoided (Karakadzai et al., 2023).

As confirmed in the explanation of Law No. 24 of 1992 concerning Spatial Planning, Article 17 "control of space utilization is carried out through supervision and ordering activities". Supervision itself is an effort or activity to maintain the suitability of space utilization with the space function specified in the spatial plan which is carried out in the form of:

- a. Reporting is an effort or activity to provide objective information regarding the use of space, whether by or not following the spatial plan (Hermoso et al., 2022).
- b. Monitoring is an effort or activity to observe, supervise, and carefully examine changes in the quality of spatial planning and the environment that are not following the spatial planning plan. Routine monitoring of spatial and environmental changes is carried out by the respective Regency/City Governments using all incoming reports, both from individual members of the community. Community organizations, RT, RW, sub-district and sub-district officials. This monitoring is the obligation of Regional Government officials as a continuation of the findings in the reporting process which are then followed

up together based on applicable processes and procedures (Nguyen et al., 2021).

- c. Evaluation is an effort or activity to assess the overall progress of space utilization activities after reporting and monitoring activities have first been carried out in achieving the objectives of the spatial planning plan. The essence of the evaluation is to assess the progress of all utilization activities in achieving the objectives of the spatial plan. Evaluation is carried out continuously by making spatial portraits. Every year this is differentiated from the review activities mandated by the Spatial Planning Law. A review is an effort to periodically reassess the validity of the spatial planning plan and the overall performance of the spatial planning; including accommodating updates deemed necessary due to new paradigms and regulations or references in spatial planning activities carried out after an evaluation activity found fundamental problems (Bibri et al., 2020).

Meanwhile, controlling is an effort to take action against the use of space that is not following the plan to be realized. Controlling actions are carried out through inspection and investigation of all violations or crimes committed regarding space utilization that are not following the spatial planning plan (Berisha et al., 2021). Controlling space utilization is carried out by the regional government through officials who are authorized to control violations of space utilization, including sub-district officials. The form of imposition of these sanctions can be in the form of administrative sanctions, criminal sanctions, or civil sanctions regulated in applicable legislation (Mizwar & Soewaryo, 2023).

Control activities can be carried out in the form of direct control and indirect control. Direct enforcement is through law enforcement mechanisms carried out following applicable laws and regulations, while indirect enforcement is the imposition of disincentive sanctions for the use of space which can be implemented, among other things, through the progressive imposition of levies or limiting basic environmental facilities and infrastructure (Shi et al., 2021).

### **3. Urban Area**

In regional planning, it is very necessary to determine whether a residential area or place of various activities is a city or not. This is because cities have different functions so their facility needs are different compared to rural areas. Even in rural areas, there are residential locations plus various non-agricultural activities such as trading, coffee shops, barbers, and clothes tailors, even though at a small intensity (Pozoukidou & Chatziannaki, 2021).

In determining whether a residential concentration can be categorized as a city or not, there needs to be clear criteria to differentiate it (D. Permana, 2023). One of the criteria commonly used is the number and density of population, for example from the perspective of population based on government administrative areas, the results are often inaccurate because sometimes there are parts of the outskirts of city administrative areas that do not meet the requirements as city areas. In other

conditions, the city has expanded beyond its administrative boundaries, meaning that the city has merged with neighboring areas that are not within the city's administrative area (Li, 2020).

The problem for residential concentrations or small cities (district capitals) is whether the concentration can be categorized as a city or still as a village. So, it is necessary to determine the criteria for whether a location meets the requirements to be declared a city or not. The Central Statistics Agency (BPS), in carrying out a village/kelurahan status survey conducted in 2000, used several criteria to determine whether a village/kelurahan was categorized as a village or city (Senoro et al., 2022). The criteria used are:

- a. Population density per square kilometer,
- b. Percentage of households whose main livelihood is agriculture or non-agriculture,
- c. Percentage of households that own a computer,
- d. Percentage of households that are electricity customers,
- e. Public facilities in the village, such as educational facilities, markets, karaoke, massage parlors, and salons (Ma et al., 2021).

The BPS criteria above are only based on physical conditions and must be supplemented by looking at whether the concentration site carries out urban functions. To see whether a concentration is a city or not is based on how many types of urban facilities are available and how far the city carries out urban functions (Ahmed et al., 2023). Urban functions include the following:

- a. Trade centers, whose levels can be differentiated into serving the city community itself, serving city and suburban communities, serving several small cities (district centers), and serving provincial centers or centers of inter-island trade activities.
- b. Service center, both individual services and company services.
- c. Availability of urban infrastructure, such as a good city road system, electricity network, telephone network, drinking water network, waste services, drainage system, city parks, and markets.
- d. Center for providing social facilities, such as educational infrastructure (universities, academies, high schools, middle schools, elementary schools), including various skills courses, health infrastructure at various levels, including pharmacies, places of worship, sports infrastructure, and social infrastructure such as meeting buildings.
- e. Center of government, many cities are also the location of the center of government.
- f. Communication center and transportation base.
- g. Arranged residential locations (Zhang & Grydehøj, 2021).

### C. METHOD

This research was designed to understand in-depth spatial planning policies in the aspect of controlling urban development, using a qualitative approach. This

approach was chosen because it allows researchers to gain a broader and deeper understanding of the phenomenon being studied, through collecting descriptive data. The data used in this research comes from various research results and previous studies which still have similar discussions with the focus of this research. These sources include scientific journals and research reports related to spatial planning and urban development. After the research data has been successfully collected, the next step is processing the data. Data processing is carried out to enable researchers to draw valid and reliable conclusions. Through this process, it is hoped that the results of this research can provide new insights and recommendations that are useful for developing spatial planning policies that are more effective in controlling urban development (Hasan et al., 2023).

## **D. RESULT AND DISCUSSION**

### **1. Dynamics of Urban Area Development**

The dynamics of urban development is a phenomenon that continues to develop along with the rapid rate of population growth and urbanization. Population growth in urban areas has a significant impact on space and infrastructure requirements (Otuoze et al., 2020). As a result of the increase in urban population, the need for housing, health facilities, education, and transportation also increases. Rapid urbanization is often accompanied by an increase in demand for land for infrastructure and residential development that can accommodate the city's growing population. This encourages land conversion on a large scale, where agricultural land, green land, and open spaces which previously functioned as the lungs of cities and sources of local environmental sustainability, change their function into commercial, industrial, and residential areas. This land conversion not only reduces available green space but also harms the city environment (Kristian,I, 2022).

One of the most obvious environmental impacts of uncontrolled urban development is increased pollution. Air and water pollution is a serious problem facing many big cities. The increase in motorized vehicles, industrial activity, and open burning of waste contributes to increased air pollution. Meanwhile, poorly managed industrial and domestic waste disposal worsens water pollution conditions. This pollution not only negatively impacts the health of city residents but also reduces the general quality of life.

Apart from pollution, uncontrolled development also increases the vulnerability of urban areas to flooding. The decrease in water catchment areas due to the conversion of green land into residential and commercial areas reduces the environment's ability to absorb rainwater (Kristian, I, 2021). This, combined with inadequate drainage systems, causes urban areas to be highly vulnerable to flooding when the rainy season arrives. Floods not only cause material losses but can also disrupt the economic and social activities of city residents.

Rising temperatures in urban areas, known as the urban heat island phenomenon, are another impact of uncontrolled development. A reduction in green space and an increase in surfaces covered by materials such as asphalt and concrete

cause cities to absorb and store more heat than rural areas. This phenomenon not only increases air temperatures in urban areas but also increases energy requirements for cooling, such as the use of air conditioning, which in turn contributes further to air pollution and climate change.

The rapid and uncontrolled dynamics of urban development give rise to various environmental challenges that require serious attention and handling. Efforts to overcome these problems require an integrated approach involving government, the private sector, and society. Controlling development, preserving green land, improving green infrastructure, and implementing effective policies and regulations are the keys to creating sustainable and livable urban areas (Kristian, I, 2021).

## **2. Challenges in Development Control**

In the context of development control, the challenges faced are often complex and multidimensional, especially due to the existence of diverse and sometimes conflicting sectoral interests. Different sectoral interests between developers, local governments, and communities often lead to conflicts in controlling development. Developers generally seek maximum returns from their investments, which can drive a desire to build with little consideration of environmental or social consequences. On the other hand, local governments may seek to meet the space needs of their communities while also maintaining economic growth. Communities, especially those directly impacted by development, may focus more on environmental preservation, accessibility of public services, and quality of life. This conflict of interest can complicate the decision-making process and implementation of effective and sustainable development control policies.

Apart from that, coordination between government agencies with authority in spatial planning and development control is also a significant challenge. Government agencies at various levels often have different visions, missions, and priorities. For example, an agency responsible for environmental protection may have a very different view of a development project than an agency focused on economic development. These challenges are exacerbated by complex licensing and regulatory systems, which can cause delays and excessive bureaucracy in the development control process. Ineffective coordination between institutions can hinder the implementation of comprehensive and integrated spatial planning policies, thereby reducing the overall effectiveness of development control.

Compliance with spatial planning regulations is another challenge that is no less important. Although many countries and cities have developed comprehensive regulatory frameworks for spatial planning and development control, their implementation is often inconsistent. These problems can arise from a lack of resources for law enforcement, a lack of awareness or understanding of regulations among developers and the public, or even corruption in the licensing process. Low compliance with spatial planning regulations reduces the effectiveness of development control, exacerbates environmental and social problems, and hinders efforts to achieve sustainable development. Without strong compliance with

regulations, spatial planning, and development control efforts will face significant obstacles in achieving their goals.

Addressing these challenges requires a holistic and integrated approach, involving all stakeholders in the decision-making process. This includes developing more effective inter-agency coordination mechanisms, increasing transparency and public participation in decision-making processes, as well as strengthening the capacity of government institutions to monitor and enforce spatial planning regulations. Only in this way can development control be implemented effectively, reduce conflicts of interest, and ensure that the development of urban areas takes place sustainably and inclusively.

### **3. Spatial Planning Policy as a Solution**

Spatial planning policy is a key element in overcoming various challenges faced by urban areas due to uncontrolled development. To achieve maximum effectiveness, the policy-making process must be participatory, ensuring that all stakeholders, including civil society, are actively involved in the process. This participation not only enriches the policymaking process with diverse perspectives and expertise but also increases the legitimacy and acceptability of the policy in the eyes of society, which in turn facilitates smoother implementation. The involvement of civil society in the creation of spatial planning policies also ensures that these policies reflect the needs and desires of local communities, thereby increasing their relevance and effectiveness in addressing the specific problems faced by these urban areas.

In addition, the integration of spatial planning policies with other sectoral policies such as transportation, housing, and the environment is very important to create synergy between various aspects of urban development. This integrated approach allows policymakers to account for complex interactions between multiple factors and maximize cross-sectoral benefits while reducing conflict and redundancy. For example, spatial planning policies that are integrated with transportation policies can support the development of efficient public transportation systems, reduce the need for travel by private vehicles, and contribute to reducing greenhouse gas emissions. Likewise, integration with housing policy can ensure that affordable housing developments are well integrated into spatial plans, supporting the creation of inclusive and sustainable communities.

Implementation strategies and effective monitoring systems are other important components of spatial planning policies. Successful policy implementation requires clear action plans, adequate resource allocation, and strong commitment from all levels of government. This also requires good cooperation between the public, private, and civil society sectors. To ensure that spatial planning policies remain relevant and effective in the face of changing conditions and new challenges, a strong monitoring system must be put in place. This system must be able to evaluate progress against policy goals, identify barriers and challenges in implementation, and provide feedback for policy adjustments. Continuous monitoring and evaluation of policies

enable continuous adaptation and improvement, ensuring that spatial planning policies can effectively address the ever-changing dynamics of urban development.

A participatory, integrated, and adaptive approach to creating and implementing spatial planning policies is the key to overcoming various urban development challenges. Through close collaboration between government, the private sector, and civil society, as well as a focus on ongoing monitoring and evaluation, spatial planning policies can become a powerful tool for creating urban areas that are more sustainable, inclusive, and resilient to future challenges.

#### **4. Towards Sustainable Urban Area Development**

Achieving sustainable urban development is an important and complex goal, requiring an integrated and innovative approach to overcome various existing challenges. One important aspect in achieving this goal is the development of green infrastructure, which not only improves the quality of the urban environment but also provides various social and economic benefits. Green infrastructure, such as urban parks, green roofs, and green walls, can help reduce air pollution, control air temperature, and improve the mental well-being of city residents. Additionally, green infrastructure plays a role in stormwater management, reducing flood risks and improving water quality, which is especially important in urban areas that often face challenges related to water management.

Sustainable management of natural resources is also key to sustainable urban development. This management strategy includes efficient use of resources, such as energy and water, and reducing waste production through recycling and reuse policies. For example, rainwater collection systems and wastewater treatment technologies can be used to meet non-potable water needs, reducing the use of freshwater resources. Waste reduction can be achieved through effective recycling programs and incentives to reduce the consumption of single-use items. These measures not only help in environmental conservation but also support the local economy through the creation of green jobs and reduction in waste and resource management costs.

Apart from environmental aspects, improving the quality of life of city residents is another important component of sustainable urban development. Well-designed spatial planning policies can play a vital role in this aspect, by providing better access to affordable housing, health services, education, and quality public spaces. The creation of safe and inclusive public spaces, such as parks and pedestrian areas, not only improves the physical and mental health of city residents but also supports social interaction and strengthens communities. The integration of education and health facilities in urban planning ensures that all city residents have access to these important services, which in turn improves the overall quality of life.

To achieve sustainable urban development, close cooperation between government, the private sector, and civil society is needed. A holistic and adaptive approach, which considers ecological, economic, and social needs in balance, is key to addressing these complex challenges. Through implementing strategies that focus on

developing green infrastructure, sustainable natural resource management, and improving the quality of life, urban areas can be transformed into greener, healthier, and more inclusive environments for all their residents.

## E. CONCLUSION

The results of this research found that spatial planning policies have a crucial role in controlling the development of urban areas so that they occur sustainably. The dynamics of urban development characterized by population growth and urbanization, land conversion, and various environmental problems demand a comprehensive and participatory spatial planning strategy. Integration of spatial planning policies with other sector policies such as transportation, housing, and the environment, together with effective implementation and monitoring, is the key to creating synergies that support inclusive and sustainable urban development. Towards sustainable urban development, joint efforts from all stakeholders are needed to overcome challenges such as different sectoral interests, inter-agency coordination, and regulatory compliance. The development of green infrastructure, sustainable management of natural resources, and improving the quality of life through better access to essential services, must be the main focus. Through close collaboration between the government, the private sector, and society, it is hoped that the development of urban areas can proceed with sustainability principles that pay attention to social justice, environmental sustainability, and inclusive economic growth.

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