

# Evaluation of the Implementation of Building Permits (PBG) in Supporting Infrastructure Growth and Development in Medan City

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**Abstract—** The implementation of Building Infrastructure (PBG) in Medan City has an important role in supporting the development of quality, structured, and sustainable city infrastructure. This study aims to evaluate the contribution of PBG in the growth and development of infrastructure in the city of Medan and the obstacles faced in its implementation. The method used is a qualitative approach with data collection through interviews and document analysis related to PBG regulations in Medan City. The results of the study show that PBG contributes significantly to improving the quality of infrastructure, supporting the development of orderly urban areas, and creating a safe and comfortable environment. However, there are still obstacles in terms of suboptimal supervision, limited human resources, and slow bureaucracy. For this reason, it is necessary to increase supervisory capacity, use technology in the licensing process, and stricter law enforcement to maximize the potential of PBG in supporting better city development.

**Keywords:** *Evaluation, PBG, Infrastructure, Sustainable Development, Spatial Planning.*

## I. INTRODUCTION

The rapid development of cities, especially in urban areas such as the city of Medan, requires planned spatial and infrastructure management. As one of the largest cities in Indonesia, the city of Medan is a center of significant economic, social, and cultural activities. However, this growth rate is often not balanced with directed development management, so it has the potential to cause various problems, such as congestion, floods, and a decrease in environmental quality. Building Licensing (PBG) is one of the policy instruments introduced to replace Building Permits (IMB) as the government's effort to improve development control. PBG aims to ensure that the building construction process is in accordance with the Regional Spatial Plan (RTRW) and other related regulations, so as to support the creation of a more organized and sustainable urban environment. This policy is also expected to be able to provide convenience for the community and business actors in obtaining permits, while ensuring the safety, health, comfort, and sustainability of the buildings that are erected.

In Medan City, the implementation of PBG has a strategic role in supporting infrastructure growth and development. As one of the cities that continues to grow, the need for adequate infrastructure is crucial to support

economic activities and population mobility. However, in practice, the implementation of PBG in Medan City faces various challenges, such as lack of socialization to the community, complexity of licensing procedures, and other technical and administrative obstacles. The phenomenon of problems that occur in the implementation of Building Licensing (PBG) in the City of Medan includes the following aspects: Lack of Policy Socialization Many people, including developers, have not fully understood the mechanism and purpose of PBG. This results in low compliance with applicable rules. Complexity and Length of the Licensing Process Although PBG aims to simplify licensing procedures, in practice there are still administrative obstacles that prolong the permit process. Lack of Availability of Resources Both in terms of experts and supporting technology, the implementation of PBG in Medan City is often constrained by limited resources, which affects the quality of evaluation and supervision of development. Incompatibility with the Regional Spatial Plan (RTRW) of some buildings that have obtained PBG are found to be not in accordance with the provisions of the RTRW, which can have a negative impact on the environment and urban spatial planning. Lack of Supervision and Law Enforcement Lack of supervision over the implementation of development and weak law enforcement cause many violations that are not acted upon firmly.

Building Licensing (PBG) is a strategic policy designed to replace the Building Permit (IMB) system. The goal is to create a licensing mechanism that is more adaptive and in accordance with the needs of modern urban development. In Medan City, PBG is expected to be a solution to overcome various challenges in development management, such as improving the quality of infrastructure, controlling spatial planning, and accelerating the investment process. In its implementation, the PBG policy faces significant challenges. The complexity of administrative procedures is one of the main obstacles. Many business actors and the public feel that this policy has not fully provided convenience, especially due to the lack of socialization and transparency of information. This has an impact on the low understanding of the technical management of PBG, thereby extending the permit processing time.





Figure 1.1 Realization of the progress of Medan City Infrastructure Development work

In addition, the lack of competent human resources in managing licensing is another factor that hinders the effectiveness of PBG. Many developers complain about delays in technical evaluations due to limited experts. On the other hand, digital systems that are expected to simplify processes are still not optimally implemented, so many processes are carried out manually and are prone to errors. The evaluation of PBG also shows that this policy has great potential to support infrastructure growth in the city of Medan. By ensuring that erected buildings meet safety, health, and sustainability standards, PBG can improve the quality of the urban environment. However, this contribution can only be realized if various obstacles in the implementation of PBG, such as convoluted bureaucracy and lack of supervision, can be overcome. In the context of spatial planning, PBG provides a clearer framework to direct development in accordance with the Regional Spatial Plan (RTRW).

This is important to avoid spatial conflicts that can damage the aesthetics of the city and interfere with ecological functions. However, the discrepancy between the building that has obtained a permit and the RTRW shows a weakness in the verification and supervision process. As an effort to support the growth and development of infrastructure, the implementation of PBG in Medan City requires a profound overhaul. Strategic steps are needed, such as increasing the capacity of human resources, optimizing information technology, and strengthening legal supervision. Thus, PBG can be an effective instrument to create sustainable, efficient, and responsive urban development to the needs of the community.

## II. LITERATURE REVIEW

### Definition of Building Licensing (PBG)

According to Susanto (2020), PBG is a licensing mechanism used to regulate the construction of buildings to comply with safety, health, comfort, and sustainability standards. PBG aims to replace Building Permits (IMB) with a more flexible and development-oriented approach to final development. Setiawan and Rahman (2020) explained that the implementation of PBG is based on the principles of efficiency and transparency. This policy is designed to support sustainable development, paying attention to spatial planning and environmental impact aspects. Abdiyanto (2019) stated that development is a multidimensional process that involves changes in various aspects, including economic, social, and cultural.

### Public Policy Implementation

According to Winarno (2020), the implementation of public policy involves the process of implementing rules that have been set by the government to achieve certain goals. The success of policy implementation is influenced by several factors, such as human resource capacity, interagency coordination, and technological support. (Grindle 2020; Nuraini, C. et al 2024) revealed that the implementation of the policy requires strict supervision to ensure that its implementation goes according to plan. Without adequate oversight, policies tend to be distorted or deviate from their original goals. (Nuraini, C. et al, 2023).

### Spatial Planning and Infrastructure Management

Nuraini, C. et al, (2024). stated that good spatial planning is the basis for sustainable infrastructure development. Spatial planning provides direction for development sites, so that it can minimize negative impacts on the environment and society (Azmi & Nuraini, 2024; Laia et al, 2024; Muazro & Nuraini, 2024; Ramadhan & Nuraini, 2024). Rachman (2020) emphasizes the importance of synergy between spatial planning and the implementation of infrastructure development, as also revealed by Ramadhani & Nuraini (2024), Rambe & Nuraini (2024), and Praja & Nuraini, 2024). This can be achieved through good coordination between the government, the community, and the private sector. Development theory emphasizes the importance of comprehensive and integrated planning, so as to be able to create inclusive and sustainable growth (Nuraini C, 2024; Situmorang & Nuraini, 2024). In the context of infrastructure development, the role of policies such as PBG is crucial to ensure that development is carried out efficiently, in accordance with the needs of the community, and while maintaining environmental sustainability, Abdiyanto. (2021).

## III. METHOD

This research uses a qualitative approach, as expressed by Creswell (2020), who states that qualitative research aims to understand social dynamics and specific phenomena in depth, focusing on the experiences, perceptions, and contexts of the research subjects. This research also applies an interpretive paradigm to explore the implementation of PBG policies in Medan City.

### Data Collection Methods

#### 1. In-Depth Interviews

According to Sugiyono (2020), in-depth interviews are used to dig up direct data from key informants, such as government officials, developers, and communities involved in the PBG licensing process. Interviews are conducted with semi-structured guidance for flexibility in exploring issues.

#### 2. Participatory Observation

Moleong (2020) states that observation allows researchers to understand the real context of policy implementation. Observations were made on the licensing mechanism and the implementation of PBG in the field.

#### 3. Documentation Studies

Braun and Clarke (2020) explain that document analysis is important to understand the context of

policy. This study includes regulatory analysis, official reports, and other supporting documents related to PBG in Medan City.

Moleong (2020) suggests the use of triangulation to increase the validity of research results. Triangulation in this study was carried out through comparison of data from interviews, observations, and documentation. In addition, member checking is carried out to ensure the accuracy of data with informants.

#### IV. RESULT AND DISCUSSION

##### **How is the implementation of the Building Licensing (PBG) policy in Medan City**

The implementation of the Building Licensing (PBG) policy in Medan City is a strategic step taken by the government to manage the city's infrastructure growth effectively and sustainably. Based on the results of the research, there are several aspects that affect the implementation of this policy, namely regulations, inter-agency coordination, public awareness, and supervision and evaluation.

##### **1. Regulation and Legal Basis**

PBG's policy in Medan City is based on Government Regulation No. 16 of 2021 concerning Building Licensing. This regulation aims to replace Building Permits (IMB) with a more structured system, based on technical standards, and in accordance with the Regional Spatial Plan (RTRW). However, the implementation of this regulation still faces challenges in adjustment at the regional level, such as the lack of harmonization between central and local policies, as well as the limited understanding of relevant officials of the PBG procedures.

##### **2. Inter-Agency Coordination**

The success of PBG implementation is highly dependent on coordination between local governments, related agencies, and the private sector. In practice, several obstacles were found, such as the lack of effective communication between agencies, inconsistencies in operational procedures, and weak integration of digital data to facilitate the licensing process. This caused the PBG submission and approval process to take longer than expected.

##### **3. Community Awareness and Participation**

One of the main obstacles in the implementation of PBG in Medan City is the low awareness of the public and developers on the importance of complying with regulations. Many developers consider the PBG process to be an administrative burden, so they tend to ignore procedures or look for shortcuts. Local governments need to increase socialization and educate the public about the benefits of PBG to create better spatial planning.

##### **4. Supervision and Evaluation**

Supervision of the implementation of PBG in Medan City still needs to be improved. Relevant agencies often lack human resources and technology to conduct thorough monitoring and evaluation. As a result, there are spatial planning violations, such as

the construction of buildings in zones that are not in accordance with the RTRW, which has the potential to harm the environment and the surrounding community. To overcome this, it is necessary to increase the capacity of supervisors and the application of GIS (Geographic Information System)-based technology to monitor development in real-time.

##### **What are the obstacles faced in the implementation of PBG in Medan City**

Obstacles to the implementation of PBG (Building Management) in Medan City, we can discuss them narratively and completely by identifying the various challenges faced, both in terms of regulations, technical implementation, and other aspects that affect the effectiveness of this system.

1. **Obstacles in Community Socialization and Understanding** One of the main obstacles in the implementation of PBG in Medan City is the lack of understanding from the community, especially the people who build buildings, about the importance of PBG and the procedures that must be followed. Some building owners or developers do not fully understand the licensing procedures that must be followed before starting construction, which can lead to violations of existing provisions.
2. **Limited Human Resources (HR)** The implementation of PBG requires skilled experts and professionals, such as architects, engineers, and technical supervisors. However, the limited number and quality of competent human resources in this field in the city of Medan is a significant obstacle. This can hinder effective inspection and supervision of building construction, as well as cause errors or irregularities in the implementation of development.
3. **Complex Bureaucracy** The licensing process for PBGs is often seen as complicated by the parties involved. There are many procedures that must be taken and documents that need to be fulfilled before a permit is granted. Especially in terms of coordination between related agencies, such as the Public Works Office, the Regional Disaster Management Agency, or other institutions involved in supervision. This convoluted bureaucracy often leads to delays in the permitting process and the implementation of development.
4. **Inconsistency with Spatial Planning and Zoning Regulations** in the implementation of PBG, obstacles often arise when the construction of buildings does not fully follow the applicable spatial planning and zoning regulations in the City of Medan. The construction of buildings that are not in accordance with the city's spatial plan or that do not comply with zoning regulations can cause adverse violations both in terms of environment and security.
5. **Lack of Supervision and Law Enforcement** supervision over the implementation of building construction in Medan City is still a challenge. Often the construction goes without sufficient supervision from the authorities. Weak law enforcement against violations that occur is also a problem, so that

building owners or developers who violate the regulations do not get enough sanctions. This causes violations of PBG to continue to occur, perhaps even more widespread.

6. Environmental and Safety Aspects of some building constructions in Medan City are inadequate in terms of environmental and safety aspects. For example, non-compliance with the technical requirements of buildings that are environmentally friendly or that may cause disturbances to the surrounding environment. In addition, the management of facilities such as drainage systems or fire control that is not optimal can increase the risk to the safety of building occupants and the surrounding community.
7. Lack of Technology Infrastructure Effective implementation of PBG requires the use of technology to facilitate submission, supervision, and licensing. However, the lack of adequate technological infrastructure in the city of Medan hinders the digitization process of licensing and supervision, so many processes are still carried out manually. This can slow down implementation and lead to inaccuracies in recording and supervision.
8. Culture and Practices Corruption Like in many other regions, corrupt practices can also affect the implementation of PBG in the city of Medan. The licensing or supervision process that should be carried out with strict standards is sometimes manipulated by certain parties for personal or group gain. This corrupt practice causes disorder in the implementation of PBG and harms the community and the environment.
9. Budget Limitations The Medan City government often faces obstacles in terms of limited budget to supervise and implement PBG regulations. Lack of funds for infrastructure development, human resource training, and adequate technology procurement can slow down the overall PBG implementation process.
10. Social and Economic Dynamics that occur in the city of Medan can also affect the implementation of PBG. When the economy was developing, many building constructions were carried out without paying attention to the applicable procedures. In addition, the existence of large social gaps between different walks of life can also affect the implementation of these regulations, with some parties may feel the need to follow the rules due to the injustice they feel.

In the implementation of PBG in Medan City, there are various obstacles related to social, economic, and technical factors. To improve the implementation of PBG, there needs to be an increase in public understanding, human resource training, improvement of the bureaucratic system, and strengthening supervision and law enforcement. Thus, the implementation of buildings in Medan City can run better and in accordance with existing regulations.

### **The extent of PBG's contribution in supporting the growth and development of infrastructure in the city of Medan**

In the discussion of Chapter 4 about the contribution of PBG (Building Management) in supporting the growth and development of infrastructure in the city of Medan, it can be highlighted how this system plays a role in improving the quality of development, supporting sustainable development, and creating an orderly and safe environment. PBG's contribution is very important in ensuring that every building construction carried out is in accordance with applicable regulations, and is able to adapt to the city's changing developments. PBG makes a significant contribution to the quality of infrastructure in the city of Medan. With regulations that regulate every stage of building construction, from planning to implementation, each building built will meet applicable technical standards. For example, buildings built in accordance with safety regulations, spatial layout, and proper drainage systems will prevent damage to other city infrastructure. It also helps maintain the quality of roads, clean water networks, and well-integrated sewers around the development area.

PBG plays a role in regulating and supervising the construction of buildings that support the development of urban areas in a structured and systematic manner. The city of Medan, as a big city, continues to grow rapidly, so the need for space for residential, commercial, and public facilities is getting higher. PBG helps ensure that every building construction is carried out in the right area according to its designation, and that each building does not undermine the existing urban spatial order. This system also plays a role in avoiding the construction of buildings that are not in accordance with the city's zoning and spatial planning regulations. PBG contributes directly to improving the safety and comfort of the urban environment. The licensing process and strict supervision of building safety aspects (such as fire protection systems, earthquake-resistant building structures, and evacuation facilities) ensure that the buildings are safe for their occupants and the surrounding community. When buildings are built to a high standard, the risk of accidents or damage to the city's infrastructure (such as roads, bridges, or sewers) can be minimized.

PBG supports sustainable development by requiring every building built to meet environmentally friendly criteria. In the PBG regulation, there are provisions related to the use of environmentally friendly building materials, energy efficiency, rainwater management, and pollution reduction. Thus, development in the city of Medan not only focuses on aesthetic and economic aspects, but also on environmental sustainability that is beneficial for future generations. PBG also encourages the use of the latest technology in more environmentally friendly construction. With an orderly and reliable PBG system, the City of Medan can increase its attractiveness as an investment location for developers and investors. A clear licensing system and a development process that complies with standards will create an environment conducive to property investment. This is important, because the city of Medan, as the third largest city in Indonesia, is a destination for various building construction projects, both for residential, commercial, and industrial purposes. The existence of a transparent and efficient PBG

gives investors the confidence to invest in the development of urban infrastructure.

PBG also contributes to increasing the availability of public infrastructure needed by the community. In every building construction project, there is an obligation to provide green open spaces, public facilities, and access roads that can improve the quality of life of residents and the surrounding community. In addition, PBG also facilitates more integrated infrastructure development, such as the construction of efficient transportation systems, clean water networks, and good waste management. One of the main contributions of PBG is to reduce the negative impact of development on the environment and the surrounding community. Without strict supervision of development, there can be misuse of space, environmental destruction, or the construction of buildings that are not in accordance with the character of the area. With PBG, every building built must consider its impact on the surrounding environment, be it related to land use changes, impacts on air and water quality, and resilience to natural disasters.

PBG serves as a tool to improve compliance with local regulations related to building construction. With the existence of PBG, the construction of buildings in Medan City will follow various regulations related to land use, buildings that are in accordance with technical standards, and zoning regulations set by the city government. This not only maintains the orderly development but also ensures that each development supports the long-term vision of better development of the City of Medan. The construction of buildings carried out through PBG contributes to improving the quality of life of the community. By building a building that complies with safety, comfort, and health standards, people who live or work in the building can feel the benefits. In addition, development that pays attention to social and environmental aspects will create a more livable area, with adequate facilities to support daily life.

PBG also contributes to the economic growth of Medan City. With the increase in the number of building constructions, be it office buildings, housing, or public facilities, many new jobs will be created, ranging from the construction sector, architecture, civil engineering, to other supporting sectors. This development project also encourages the growth of other economic sectors such as trade in building materials and the provision of development-related services. PBG plays a very important role in supporting the growth and development of infrastructure in the city of Medan. By ensuring that every building construction is carried out in accordance with applicable regulations, PBG helps create a safer, more orderly, and more sustainable environment. PBG's contribution in creating a more modern, safe, and comfortable city will be increasingly important along with the rapid development of Medan City as an economic and trade center in North Sumatra.

## V. CONCLUSION

### Conclusion

Based on the research carried out and the results of the research or study, it can be summarized several important findings that reflect the results of the research on the implementation of PBG (Building Management) in the city

of Medan. Based on the analysis that has been carried out, the following conclusions can be drawn:

The implementation of PBG to Improve the Quality of Infrastructure in the City of PBG has made a significant contribution to improving the quality of infrastructure in the city of Medan. A good licensing and supervision system ensures that each building construction follows established technical standards, which in turn improves the quality of urban infrastructure. Regular and regulatory development minimizes the risk of damage to municipal infrastructure such as roads, drainage channels, and other utility networks.

PBG Helps Realize Sustainable Development The results of the study show that PBG has contributed to the development of a more sustainable Medan City. The application of environmentally friendly principles in every building construction, such as efficient use of materials and natural resource management, shows that PBG supports environmentally friendly development and maintains the balance of the urban ecosystem.

Supervision and Law Enforcement Are Not Optimal Although PBG has had a positive impact, the results of the study also reveal that supervision of the implementation of PBG in the field is still not fully optimal. There are some cases of building construction that does not fully comply with regulations or there are delays in the licensing process, which indicates weaknesses in law enforcement and supervision.

PBG Supports the Development of Structured Urban Areas The results of the study also show that PBG plays a role in supporting the development of more structured urban areas. The implementation of zoning in accordance with the city's spatial plan has helped create more orderly development and reduce potential problems such as inappropriate land allocation.

Limitations of Human Resources and Supervision Infrastructure One of the obstacles found in the implementation of PBG is the limited number of competent human resources (HR) and the supervision infrastructure that is still limited. This results in less than optimal inspections of each development project, which sometimes affects the quality and compliance with regulations.

Overall, the implementation of PBG in Medan City has had a positive impact in supporting the growth and development of city infrastructure, as well as realizing more orderly, safe, and sustainable development. However, there are still challenges in terms of supervision, law enforcement, and limited resources that need to be addressed so that PBG can make a more optimal contribution to the development of the City of Medan in the future.

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