



# STATE CAPACITY IN LAND MANAGEMENT AND SPATIAL PLANNING: A COMPARATIVE STUDY OF INDONESIA-SINGAPORE

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## Abstrack:

*Land and spatial governance constitute strategic policy domains for ensuring sustainable and equitable development. This study aims to analyze differences in state capacity between Indonesia and Singapore in managing land and spatial planning and to examine their implications for policy effectiveness and land-related conflicts. The research adopts a qualitative approach with a descriptive-comparative design, employing a literature review of academic publications, policy documents, and reports from national and international institutions. The analysis focuses on four key dimensions of state capacity: regulatory framework, institutional arrangements, policy implementation, and oversight mechanisms. The findings indicate that although Indonesia possesses a relatively comprehensive regulatory framework through Law No. 26 of 2007 on Spatial Planning, its state capacity in implementation remains constrained by fragmented authority under decentralization, weak cross-sectoral coordination, and inconsistent law enforcement. In contrast, Singapore demonstrates a high level of state capacity through a centralized spatial planning system managed by the Urban Redevelopment Authority (URA), strong state control over land ownership, and consistent long-term planning instruments, notably the Concept Plan and Master Plan. These conditions contribute to a high degree of legal certainty and a significant reduction in land-use conflicts. This study concludes that state capacity is a critical determinant of effective land and spatial governance and offers policy-relevant insights for strengthening spatial governance in Indonesia.*

*Keyword: state capacity, spatial planning, land governance, comparative study.*

## INTRODUCTION

Land and spatial planning are strategic resources for development. Land and spatial planning policies in Indonesia are regulated by Law Number 26 of 2007 concerning Spatial Planning. This law emphasizes that land and space utilization must be carefully and appropriately planned to ensure that spatial planning and land use can create safe, productive, and sustainable spaces. Furthermore, appropriate spatial planning can support the dynamics of ongoing development. In line with this, through this framework, the government is required to have the capacity to protect and manage natural resources in an integrated and sustainable manner while ensuring orderly spatial use (UU, 2007)

The management of spatial planning, as defined in Law Number 26 of 2007 concerning Spatial Planning, aims to ensure that the spatial planning



process is carried out effectively and participatory, thus aligning with the aspirations of a just and prosperous society. In this context, land utilization needs to be carried out in an integrated manner, taking into account the existence of open and green spaces, maintaining environmental balance, and fulfilling the principle of ecological justice. Therefore, spatial planning policies cannot be formulated solely based on population and territorial considerations, but must also accommodate global challenges such as climate change and global warming, which increasingly impact sustainable development.

Spatial planning in Indonesia still faces various structural issues that hinder the realization of orderly, equitable, and sustainable spatial use. Despite a relatively comprehensive legal framework under Law Number 26 of 2007 concerning Spatial Planning, the implementation of spatial planning policies in the field often remains suboptimal. One major problem is the mismatch between spatial plans and land use practices. Many development activities are inconsistent with regional spatial plans, both in urban and rural areas. This situation indicates weak government control and oversight of spatial use, as well as low compliance with established planning documents. Further problems include overlapping permits and agrarian conflicts. Misaligned policies between sectors and levels of government often trigger conflicts of interest in land ownership and use, particularly in forested, coastal, and industrial areas. These conflicts not only impact local communities but also undermine legal certainty and development stability. Another equally important issue is the pressure of urbanization and environmental degradation. Uncontrolled urban growth drives the conversion of agricultural land and green open spaces, increasing the risk of flooding, pollution, and vulnerability to disasters. In many cases, environmental considerations and climate change mitigation have not been fully integrated into spatial planning policies.

Overall, spatial planning issues in Indonesia reflect the challenges of the state's capacity to ensure consistency between planning, implementation, and oversight of spatial use. Without institutional strengthening, law enforcement, and cross-sectoral policy integration, spatial planning has the potential to continue to be a source of conflict and development inequality.

This research, related to (Ghaniyyu & Husnita, 2020), discusses the implementation of the concept of sustainable development to strengthen spatial planning laws based on environmental functions as a solution to the negative impacts of natural exploitation resulting from uncontrolled development. Normatively, spatial planning laws divide areas into protected areas and cultivated areas using indicators of carrying capacity, carrying capacity, and environmental resilience to ensure optimal and sustainable spatial use.

Meanwhile, according to (Priyanta & Yulinda, n.d.) the importance of increasing the capacity of State Civil Apparatus (ASN) to understand the legal implications of Spatial Plan Review (PK) on infrastructure development in West Java is emphasized, in order to support safe and sustainable spatial planning. Although spatial plans are designed to be valid for twenty years, the five-year review mechanism is often misused to legitimize violations of spatial use and

land conversion, which impact environmental degradation. Legal uncertainty also arises from the use of ambiguous normative terms in regulations, so that stricter review criteria and strong protection for protected areas are needed to prevent spatial planning policies from being easily influenced by short-term interests.

And research conducted by (Islami et al., 2025) concluded that the capacity The Cimahi City Environmental Agency's handling of water catchment land conversion in North Cimahi District remains suboptimal, particularly in terms of human resources, institutions, regulations, and adaptation. Limited personnel, minimal technical training, weak cross-sectoral coordination, and the absence of standard operating procedures (SOPs) for prevention have led to a reactive role for the DLH, acting after environmental impacts have occurred, rather than taking preventative measures from the outset.

The National Disaster Management Agency (BPNN) recorded at least 3,176 disasters caused by natural disasters, with the number of disasters fluctuating from 2021 to the end of 2025. Hydrometeorological disasters, such as floods, extreme weather, and landslides, were the most prevalent type of disaster, accounting for 99.02 percent, while geological disasters only accounted for around 0.98 percent of all incidents. In this context, Singapore serves as a relevant comparison, facing far more extreme land constraints than Indonesia, yet managing space in an orderly, efficient, and sustainable manner. Through a centralized, long-term planning system, Singapore integrates land, housing, transportation, and environmental policies within a consistent spatial framework. Institutional strength, legal certainty, and disciplined policy implementation contribute to Singapore's relatively low level of conflict and natural disasters, enabling Singapore to support economic growth while maintaining environmental quality.

A comparison between Indonesia and Singapore is crucial for understanding how differences in state capacity, institutional design, and policy approaches influence the effectiveness of land and spatial management. This comparative analysis not only provides a contrasting picture between a developing country and a city-state with strong governance capacity but also provides opportunities for policy learning for Indonesia in strengthening spatial planning, control, and enforcement. Therefore, this study is both academically and practically relevant for formulating strategies to improve the quality of sustainable spatial governance in Indonesia.

This research complements previous research that focused solely on the implementation and capacity of civil servants in Indonesia. This study focuses more on comparing state capacity in managing spatial planning between Indonesia and Singapore. The results of this comparison are expected to provide input for efforts to refine and reconstruct spatial planning policies in Indonesia through strengthening government capacity. This study aims to formulate the construction of spatial planning through strengthening government capacity with a comparative analysis between spatial planning policies implemented in Indonesia and spatial planning policy practices in

Singapore.

## **RESEARCH METHOD**

This study uses a qualitative approach with a descriptive-comparative approach to analyze the differences and similarities in land governance and spatial planning policies between Indonesia and Singapore, emphasizing the policy context, institutional design, and underlying state capacity. The research data are sourced from secondary data collected through a literature review, including academic textbooks, reputable scientific journal articles, policy documents and laws related to spatial planning in each country, and reports from national and international institutions relevant to spatial planning, sustainable development, and the environment. Data analysis is conducted through literature synthesis to identify key concepts and key empirical findings, followed by a thematic comparative analysis based on regulatory, institutional, implementation, and oversight variables to uncover variations in state capacity and their implications for the effectiveness of spatial planning policies. The results of the analysis are then used to draw policy implications and formulate conceptual lessons as the basis for recommendations for strengthening spatial planning policies in Indonesia.

## **FINDINGS AND DISCUSSION**

### **Indonesia's State Capacity in Managing Land and Spatial Planning**

Indonesia's state capacity in managing land and spatial planning is heavily influenced by the decentralized nature of government, where spatial planning authority is divided between the central, provincial, and district/city governments. Normatively, this decentralization design is intended to strengthen state capacity by increasing policy responsiveness to diverse social, economic, and ecological conditions at the local level. Regional governments are expected to be able to formulate and implement spatial planning policies that are more contextual and aligned with the development needs of their respective regions. However, in practice, decentralization has created serious challenges in institutional coordination, primarily due to overlapping authority, differing political interests, and a lack of synchronization between levels of government (Firman, 2009).

This fragmentation of authority has resulted in weak consistency in national spatial planning policies. Plans formulated at the regional level often conflict with central policies and those of neighboring regions, weakening the function of spatial planning as an instrument for controlling long-term development. This situation indicates that the state's administrative capacity in the context of decentralization has not been fully balanced by effective coordination and oversight mechanisms. Weak coordination is also reflected in the low level of synchronization between sectoral policies and spatial plans. Strategic sectors such as forestry, mining, plantations, and infrastructure often have their own regulations and planning logic that are not always aligned with the RTRW (Regional Spatial Plan) and RDTR (Regional Spatial Plan). As a

result, spatial plans are often marginalized by sectoral interests oriented toward short-term economic growth. This phenomenon highlights the limited administrative and regulatory capacity of the state to integrate cross-sectoral planning and effectively coordinate central and regional actors (OECD, 2017).

In this context, spatial plans tend to function as normative documents that are easily negotiated, rather than as binding legal instruments that guide sustainable development. When the state's coordination capacity is weak, spatial plans become vulnerable to interference from political and economic interests, making the goal of realizing orderly, equitable, and sustainable spatial use difficult to achieve. This situation demonstrates that strengthening state capacity, particularly in terms of institutional coordination and cross-sectoral policy integration, is a key prerequisite for effective land and spatial management in Indonesia.

In terms of law enforcement and oversight, Indonesia's state capacity remains relatively weak. Although the spatial planning regulatory framework provides control instruments and sanctions, its implementation in the field is often inconsistent. Violations of spatial use, such as the conversion of protected land or development in disaster-prone areas, are often not firmly prosecuted or are instead legitimized through later policy changes (Hudalah & Woltjer, 2007). Weak oversight is also related to limited human resources, the limited technical capacity of supervisory officials, and poor coordination between law enforcement agencies. Agrarian studies indicate that these conditions contribute to increased land conflicts and legal uncertainty, as the state is not effectively present as the controlling authority for spatial use (Peluso et al., 2008). Thus, the state's limited coercive capacity weakens the function of spatial planning as an instrument of spatial justice and environmental protection.

Overall, Indonesia's capacity to manage land and spatial planning still faces serious challenges in terms of institutional coordination and law enforcement. This situation suggests that strengthening administrative and oversight capacity is a crucial prerequisite for increasing the effectiveness of spatial planning policies amidst the pressures of development and decentralization.

### **Singapore's State Capacity in Land and Spatial Management**

Singapore's state capacity in land and spatial management rests on a centralized, integrated, and long-term planning system, which allows the state to play a dominant role in strategically directing spatial use. State dominance of land ownership—with over 90 percent of land under government control—provides a powerful structural instrument for the state to control development direction, reduce land speculation, and ensure alignment between planning and implementation of spatial policies. This significantly differentiates Singapore from countries with decentralized systems that tend to face fragmented authority and conflicts of interest between levels of government (Phang, 2018).

In practice, Singapore's spatial planning is structured through a hierarchical and sustainable framework, primarily through the Concept Plan and Master Plan managed by the Urban Redevelopment Authority (URA). The

Concept Plan serves as a long-term spatial vision with a 40–50-year horizon, designed to comprehensively anticipate population growth, economic needs, and environmental challenges. This document integrates various strategic sectors, such as housing, industrial areas, mass transportation, green space, and water resources management, within a single integrated planning framework. Meanwhile, the Master Plan, updated regularly every 10–15 years, serves as an operational instrument that translates the long-term vision into detailed and legally binding zoning and land-use intensity regulations. The consistency between these two documents reflects the state's strong administrative capacity to systematically and evidence-based cross-sectoral planning ((URA), 2019).

In addition to its strong planning capabilities, the effectiveness of spatial planning in Singapore is also supported by strong regulatory and enforcement capacity. Land use regulations are clearly formulated, stable, and relatively free from normative ambiguity, providing a high level of legal certainty for all stakeholders. Changes in land use or zoning can only be implemented through strict formal procedures based on technocratic considerations, with the involvement of professional planning institutions. This mechanism effectively limits the scope for short-term political intervention or economic pressure that could potentially undermine spatial planning consistency (Phang, 2018).

The effectiveness of spatial planning policy implementation is also strengthened by a consistent system of oversight and law enforcement. The state has sufficient coercive capacity to ensure compliance with spatial plans through strict and enforceable administrative and legal sanctions. This high level of compliance not only reflects the state's strength in enforcing regulations but also demonstrates the legitimacy of spatial planning policies in the eyes of the public and business actors. The combination of state control over land, integrated long-term planning, and consistent law enforcement makes Singapore an exemplary country with high capacity to bridge normative planning and the effective and sustainable implementation of spatial planning policies. From a comparative perspective, Singapore's experience provides important lessons regarding the role of state capacity in minimizing land conflicts and increasing legal certainty in spatial management.

### **Comparative Analysis of Land Management and Spatial Planning between Indonesia and Singapore**

A comparison of the state capacities of Indonesia and Singapore reveals fundamental differences in administrative, regulatory, and law enforcement capabilities, which have direct implications for the effectiveness of land management and spatial planning. Indonesia, with its decentralized government structure, faces challenges in coordination across levels of government and sectors. Fragmentation of authority and inconsistent sectoral policies often weaken the position of spatial planning as a development control instrument. As a result, spatial planning implementation tends to compromise short-term interests and is vulnerable to political-economic intervention (Firman, 2009).

In contrast, Singapore demonstrates high state capacity through its

centralized planning system and strong state control over land. The dominance of state ownership allows for consistency between long-term planning and policy implementation on the ground. Clear, stable, and strictly enforced regulations strengthen legal certainty and minimize the scope for negotiations that could potentially undermine spatial planning. This reflects effective regulatory and coercive capacity in maintaining orderly land use (Phang, 2018).

The implications of these differences in state capacity are evident in the dynamics of land conflicts and the quality of development. In Indonesia, weak integration of planning and oversight contributes to high levels of agrarian conflict, overlapping permits, and uncontrolled land conversion. These land conflicts not only reduce legal certainty but also contribute to environmental degradation and regional development inequality (Peluso et al., 2008). In contrast, in Singapore, land conflicts are relatively minimal due to strong state control, consistent planning, and firm law enforcement. High legal certainty creates a stable, directed, and sustainable development climate, allowing spatial planning to function effectively as a long-term development control instrument. Overall, this comparative analysis confirms that differences in state capacity significantly vary the outcomes of spatial planning policies. States with strong capacity are able to suppress land conflicts and ensure orderly and sustainable development, while those with weak capacity tend to result in spatial disorder and prolonged conflict. These findings reinforce the argument that strengthening institutional capacity, cross-sectoral coordination, and consistent law enforcement are key prerequisites for improving land and spatial governance in Indonesia.

### **Policy Lessons**

Singapore's experience in land and spatial planning management provides a number of relevant policy lessons for Indonesia, particularly regarding strengthening state capacity in spatial planning, control, and enforcement. Although the two countries have different geographic, political, and social contexts, Singapore's spatial planning practices demonstrate how strong state capacity can generate legal certainty, regular land use, and sustainable development.

#### **1. Relevance of Singapore's Experience for Indonesia**

One key lesson from Singapore is the importance of consistency between long-term planning and policy implementation. Through its integrated and legally binding Concept Plan and Master Plan, Singapore has been able to make spatial planning an effective development control instrument. For Indonesia, this experience underscores the need to strengthen the position of the Spatial Plan (RTRW) and Regional Spatial Plan (RDTR) so that they function not only as normative documents but also as a consistent legal basis for development decision-making and permit issuance. Strengthening integration between spatial planning and sectoral policies—such as infrastructure, forestry, and investment—is key to reducing policy overlap and land conflicts.

Furthermore, Singapore's institutional model provides lessons on the importance of centralized, technocratic cross-sectoral coordination. The role of

the Urban Redevelopment Authority (URA) as a single planning agency allows for policy synchronization and minimizes fragmentation of authority. In the Indonesian context, this can be translated into strengthening national coordination mechanisms and increasing the capacity of planning institutions, without eliminating the principle of decentralization, but by clarifying the division of authority and responsibility between levels of government (Firman, 2009).

## 2. Limitations and Context of Implementation

However, the direct application of the Singapore model in Indonesia faces structural and contextual limitations. Singapore is a city-state with a relatively small area, a very high level of state land ownership, and a centralized government structure. In contrast, Indonesia has a vast territory, high socio-ecological diversity, and a decentralized government system that grants significant autonomy to regions. These differences make the Singaporean approach of strong state control over land and centralized planning difficult to fully implement in Indonesia.

Therefore, the policy lessons learned are adaptive, not direct adoption. Indonesia needs to adapt best practices from Singapore to the local context, for example through strengthening regional administrative capacity, standardizing spatial planning regulations, and improving oversight and law enforcement systems. With this contextual approach, Singapore's experience can serve as a strategic reference for Indonesia in reconstructing more consistent, equitable, and sustainable spatial planning policies, without ignoring the complexity of governance and political dynamics at the national and regional levels.

## CONCLUSION

This comparative study demonstrates that differences in state capacity play a crucial role in the effectiveness of land management and spatial planning in Indonesia and Singapore. The research findings demonstrate that although Indonesia has a relatively comprehensive spatial planning regulatory framework, its implementation still faces various structural obstacles, particularly institutional fragmentation, weak cross-sectoral coordination, and inconsistencies between land use planning and practices. These conditions result in low legal certainty, high levels of land conflicts, and limited spatial planning's ability to function as a driving force for sustainable development.

In contrast, Singapore demonstrates strong state capacity through its centralized, long-term spatial planning system, supported by clear regulations, strong institutions, and consistent law enforcement. Strong state control over land, continuity between strategic planning and implementation, and effective oversight mechanisms enable spatial planning to function optimally in guiding development and minimizing land use conflicts. This comparison confirms that the success of land governance is not solely determined by the existence of formal regulations but is highly dependent on the state's capacity to coordinate actors, enforce rules, and maintain consistency between planning and policy implementation.



Thus, state capacity can be concluded as a key factor explaining the differences in spatial planning policy performance between Indonesia and Singapore. Strengthening administrative, regulatory, and supervisory capacity is a key prerequisite for Indonesia to improve the effectiveness of land and spatial planning management. Without such strengthening, spatial planning has the potential to continue to be a source of conflict and development inequality, rather than serving as a strategic instrument for achieving equitable and sustainable development.

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