Research Horizon

ISSN: 2808-0696 (p), 2807-9531 (e)

Research Horizon
Volume: 06
Issue: 05
Year: 2026
Page: 2229-2246

Citation:
Yacoeb, M. F. P., & Niswah, H. A. (2026). Paradigms in practice: Urban planning theories and governance dualism in Batam. *Research Horizon*, *6*(5), 2229-2246.

Article History:
Received: September 11, 2026
Revised: October 8, 2026
Accepted: October 14, 2026
Online since: October 25, 2026

Paradigms in Practice: Urban Planning Theories and Governance Dualism in Batam

M. Fadel Pahleva Yacoeb[1*], Hajar Azizatun Niswah[2]

[1] Department of Regional and Urban Planning, Faculty of Engineering, Universitas Diponegoro, Semarang, Indonesia
[1] School of Engineering and Built Environment, Griffith Sciences, Griffith University, Brisbane, Australia
[2] Radio Republik Indonesia Kota Batam, Batam, Indonesia

[*] *Corresponding author: M. Fadel Pahleva Yacoeb (mfadelpj@students.undip.ac.id)*

Abstract

Batam was conceived as a state-led spatial experiment to rival regional industrial centers such as Singapore through special economic zone policies, technocratic planning, and major infrastructure investment. However, decades of development have produced persistent socio-spatial inequalities and institutional friction. This study examines how mainstream planning theories operate within Batam's institutional dualism between the autonomous municipal government and the central development agency. Using a qualitative single-case study, the research analyzes statutory planning documents, including the RPJMD, RTRW, and Special Economic Zone regulations, supported by empirical literature through theory-driven deductive content analysis. Six planning paradigms- rational comprehensive, incremental, strategic, neoliberal, communicative, and advocacy planning- are assessed based on decision logic, institutional alignment, stakeholder engagement, flexibility, and treatment of marginalized groups. The findings indicate that rigid, top-down approaches are difficult to implement under divided planning authority, leading institutions to rely on gradual and pragmatic adjustments. Strategic and neoliberal approaches strongly shape development priorities, particularly investment and global economic activities, while community participation, land tenure security, and environmental resilience receive less attention. Communicative and advocacy approaches remain limited and mainly emerge in specific land conflicts. The study highlights the need for an integrated planning framework that reconciles economic growth, institutional coordination, and spatial justice.

Keywords

Governance, Institutional Dualism, Mainstream Planning, Planning Paradigm, Spatial Justice, Special Economic Zones.

1. Introduction

Batam was once projected as Indonesia's leading industrial and technological region as an ambitious spatial experiment to rival Singapore in terms of productivity and regional influence (Pemko Batam, 2021; Amri et al., 2023; Ahmad & Pradjoko, 2024). Strategically located on the Malacca Strait and included in the national industrialization agenda since the 1970s, Batam's development was guided through special economic zone policies, investment deregulation, and large-scale infrastructure planning (Negara & Hutchinson, 2020). All of these reflected the optimistic and technocratic application of modern planning theory. However, after several decades, Batam is in an ambiguous position: not yet a fully integrated global city, but also not yet an inclusive and sustainable urban area (Lodan et al., 2023; Valentina et al., 2024).

These issues stem from the planning theory behind Batam's development. Not just from political and economic decisions. Batam, which prioritizes economic efficiency, competitiveness, and market orientation, has shaped a spatial and institutional structure that resembles strategic and neoliberal planning models (Aritenang, 2017). Those approaches emphasize land values, infrastructure readiness, and global connectivity to generate economic opportunities (Fajrah et al., 2023). However, the process sometimes neglects local needs and can exceed environmental carrying capacity (van Grunsven & Hutchinson, 2017). Moreover, the urban system that has been created is rigid and less adaptive to changing challenges (Lodan et al., 2023).

These conditions raise an important question about how planning theories work when they are applied in a real and complex institutional context. Batam provides an interesting case because planning ideas that were developed in different contexts have been applied to a city with a unique institutional structure (Nurzahiroh & Putri, 2023). The city has adopted planning approaches that emphasize economic growth, infrastructure, investment, efficiency, and global connectivity (Ahmad & Pradjoko, 2024; Athallah & Fitri, 2025). However, these approaches have not been applied in their original form. They have been adapted to the local political, economic, spatial, and institutional conditions of Batam.

The adaptation of these planning approaches is strongly influenced by Batam's dual governance structure. The Batam City Government (Pemko Batam) and BP Batam have different responsibilities and authorities in managing the city. This creates a planning environment in which multiple institutional authorities shape development decisions (Fajrah et al., 2023). As a result, planning theories that assume relatively clear institutional responsibilities may struggle to apply to Batam. Ideas such as strategic planning, neoliberal planning, and modern technocratic planning may provide important principles for development, but their implementation is also shaped by institutional negotiation, overlapping responsibilities, and different development priorities.

Batam therefore provides an opportunity to critically examine the relationship between planning theory and planning practice. Rather than asking whether a particular planning theory has been applied successfully or unsuccessfully, this study examines how different planning ideas are manifested, adapted, and constrained within Batam's institutional context. This approach recognizes that planning theories are not simply transferred from academic or international contexts into local practice. Local institutions, governance arrangements, and development conditions interpret and reshape them.

While research on Batam's political economy, institutional dualism, and development has expanded, it has paid limited attention to how planning paradigms operate within its fragmented governance structure. Existing studies examine investment-driven development, institutional overlap, and socio-spatial

consequences, but less is known about how different planning logics are manifested in planning instruments and practices and how they fit Batam's dual-governance context. Accordingly, this study asks: How are six planning paradigms- rational comprehensive, incremental, strategic, communicative, advocacy, and neoliberal planning- manifested in Batam's planning history, governance arrangements, and planning instruments, and how suitable are they for its dual-governance context? The study aims to trace these paradigms in Batam's planning trajectory, examine how institutional dualism shapes their implementation, and assess their suitability and limitations in terms of institutional coordination, stakeholder participation, flexibility, and social equity.

2. Literature Review

2.1. Rational Comprehensive and Incremental Planning

Rational Comprehensive Planning (RCP) emerged as a dominant post-war planning paradigm grounded in scientific rationality, technocratic expertise, and systematic decision-making. It conceptualizes planning as a linear process involving problem definition, extensive data collection, formulation of alternatives, quantitative evaluation, and implementation. This approach assumes that planning can be coordinated through an integrated administrative hierarchy capable of translating comprehensive blueprints into practice. However, Gil and Lucchesi (2021) argue that RCP overestimates decision-makers' cognitive capacity, assumes extensive access to reliable information, and tends to depoliticize spatial decisions that inevitably produce competing interests and outcomes. These limitations have encouraged alternative approaches that recognize uncertainty and institutional complexity.

Lindblom (2018) introduced Incremental Planning, or the "science of muddling through," as an alternative based on gradual adjustments rather than exhaustive long-term calculations. Decisions are developed through marginal policy changes, negotiation, political bargaining, and mutual adjustment, making incrementalism particularly relevant where information and administrative resources are constrained. Nevertheless, its pragmatic orientation may reinforce existing interests and limit structural or redistributive change. Hildén et al. (2004) demonstrate that planning decisions involve diverse expectations, interpretations, and interactions, highlighting the gap between formal procedures and actual decision-making. Similarly, Mäntysalo et al. (2019) identify strategic incrementalism in Lahti, Finland, where planning evolved through successive adjustments and interactions rather than a predetermined comprehensive process.

2.2. Strategic and Neoliberal Planning

In the late twentieth century, fiscal restructuring and global economic competition contributed to the emergence of Strategic Planning in urban governance. Adapted from corporate management, strategic planning emphasizes selective priorities, institutional strengths, external opportunities and threats, and the coordination of stakeholders around a shared spatial vision (Theng, 2026). Albrechts (2004) similarly characterizes strategic spatial planning as a shift from comprehensive and regulatory approaches toward selective intervention, strategic priorities, and the coordination of actors and resources around transformative objectives. Rather than attempting to regulate urban development comprehensively, strategic planning focuses on leverage points that can generate broader economic and spatial impacts, including infrastructure development and private investment. Its emphasis on prioritization and coordination makes it particularly relevant to contexts where resources, institutional capacity, and planning authority are fragmented.

Closely associated with market-oriented development is Neoliberal Planning, which emerged alongside the restructuring of welfare-state functions and the promotion of entrepreneurial urban governance. This paradigm emphasizes deregulation, spatial privatization, and Public-Private Partnerships (PPPs) to mobilize private and transnational capital (Baeten, 2017). The state consequently shifts from direct provision toward facilitating markets through investment incentives, regulatory flexibility, and development-oriented infrastructure. However, the benefits and costs of neoliberal planning are unevenly distributed. Brenner and Theodore (2002) emphasize that neoliberalization does not produce a uniform urban model but is shaped by local institutional arrangements, development strategies, and political-economic conditions. Thus, while neoliberal planning may support investment and physical transformation, it can also generate socio-spatial segregation, privatization, and displacement.

2.3. Communicative and Advocacy Planning

As technocratic and market-driven approaches faced growing concerns over participation and legitimacy, alternative planning paradigms emerged to emphasize democratic deliberation, collective learning, and social justice. Communicative Planning conceptualizes planning as an interactive process rather than a purely technical or market-oriented exercise (Kivits & Sawang, 2021). Drawing on Habermasian critical theory, it emphasizes multi-stakeholder dialogue, mutual learning, and deliberation to facilitate understanding and consensus among actors with diverse interests. Healey (2020) similarly argues that communicative and collaborative planning reposition planning as a process of dialogue and collective learning, where knowledge is constructed through interaction rather than simply transferred from technical experts to the public. Accordingly, planners are expected to act primarily as facilitators and mediators who create spaces for dialogue among stakeholders.

Advocacy Planning takes a more explicitly justice-oriented position by challenging the assumption that planning can be politically neutral. Emerging from the civil rights movement, it argues that conventional planning processes can systematically disadvantage low-income and marginalized communities. Sager (2022) describes the planner in this approach as an advocate who represents underrepresented groups and challenges dominant political or corporate interests. Its emphasis therefore extends beyond participation toward spatial equity, secure land tenure, and redistributive justice. Forester (2018) further highlights that planning communication is embedded in unequal power relations, meaning that planners influence not only how information is exchanged but also whose knowledge, interests, and concerns become visible in decision-making.

3. Methods

This study uses a qualitative single-case study design to examine the operational dynamics and limitations of urban planning paradigms within the institutional dualism of Batam, Indonesia. A qualitative case study is appropriate because the study focuses on complex institutional processes that are shaped by historical, administrative, and spatial contexts, where the boundaries between planning theories and their practical implementation cannot be examined separately (Ahmad & Pradjoko, 2024). Batam was selected as the case because its development as a state-led border industrial area involves concurrent jurisdictions between the municipal authority and the central government development agency, providing a relevant context for examining how different planning paradigms interact with fragmented governance arrangements.

Data collection relies primarily on secondary documentary analysis using two complementary source categories: formal planning and regulatory documents and

empirical literature. The analyzed policy documents include the Batam City Regional Medium-Term Development Plan (RPJMD 2021–2026), the Batam Regional Spatial Plan (RTRW 2021–2041), Strategic Environmental Assessments, and key national regulations governing Free Trade Zones (FTZ) and Special Economic Zones. These documents were selected because they represent major statutory instruments through which development priorities, spatial allocation, environmental considerations, and economic policies are formally articulated. Peer-reviewed academic literature and government performance reports complement the documentary evidence, providing contextual and empirical support and enabling triangulation across sources.

The data are analyzed using theory-driven deductive content analysis based on the conceptual framework. This approach systematically examines empirical evidence against predefined theoretical dimensions rather than deriving categories solely from the documents. Evidence concerning Batam's planning history, governance architecture, and statutory planning instruments is coded according to the six planning paradigms: rational comprehensive planning, incrementalism, strategic planning, neoliberal planning, communicative planning, and advocacy planning. Each paradigm is examined across analytical dimensions: core decision logic, institutional integration, stakeholder engagement, operational flexibility, treatment of marginalized communities, and outcomes in Batam. The comparison enables the study to identify patterns of alignment and divergence between theoretical assumptions and planning practices. The resulting analytical structure provides a consistent basis for evaluating the applicability and limitations of each paradigm within Batam's dual-governance context.

4. Results

4.1. Batam's Planning History

Batam has a history of planning development that is very much based on state-based strategic approaches and geopolitical considerations (Abdi, 2023; Syuzairi et al., 2024). Batam's transformation from a remote island to a strategic industrial hub reflects how planning decisions are often driven by national agendas, rather than local needs. Batam's development began in earnest in the early 1970s when the Indonesian government designated the island as an industrial area to support oil and gas exploration by Pertamina in Belakang Padang (Diskominfo Kota Batam, 2022). This designation was based not only on economic potential but also on strategic considerations, given its proximity to Singapore and international shipping routes (Aritenang, 2020). At this stage, RCP appeared dominant. The state designed Batam from scratch with technocratic logic and a development blueprint. However, because this approach lacked participation and was insensitive to local socio-cultural conditions, negative impacts emerged in the form of marginalization of local communities and social exclusion (Ahmad & Pradjoko, 2024).

The 1980s–1990s marked a major transformation of Batam into a Free Trade Zone driven by foreign investment and export-oriented industrial development. Through the establishment of the Batam Authority (now BP Batam), the area was formalized as a Free Trade Zone with various incentives to attract Foreign Direct Investment (FDI) (Royle, 1997). The Regional Spatial Plan (*Rencana Tata Ruang Wilayah*/RTRW) was developed in a highly technical manner and shaped by the logic of economic zoning, allocating space for industrial areas, ports, airports, and worker settlements. This approach contained elements of Strategic Planning but was still implemented in a predominantly top-down manner. The presence of investors from Japan, Korea, and Singapore accelerated economic growth but also contributed to emerging inequalities (Pascal, 2023). Informal settlements or ruli (*rumah liar*)

expanded rapidly because planning did not adequately anticipate the housing needs of the growing migrant workforce (Ahmad & Pradjoko, 2024).

The 2000–2015 period marked a significant shift in Batam's governance following the Reformation, as regional autonomy introduced a more complex institutional structure and intensified the dualism of planning authority. Along with post-Reformation regional autonomy, tensions emerged between BP Batam and the Batam City Government in terms of licensing, spatial planning, and land distribution (Respationo & Thapa, 2024). These tensions highlighted challenges to the legitimacy and coordination of planning practices. Although various strategic plans had been prepared, institutions often implemented them poorly and out of sync. In this context, several Communicative Planning initiatives emerged, including Musrenbang and public participation in the preparation of the Regional Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Daerah*/RPJMD). However, these processes were often perceived as largely ceremonial, as major planning decisions remained concentrated among technocratic and political elites.

In the last decade, Batam has begun to shift its focus from conventional manufacturing to the high-tech sector and the digital economy (van Grunsven & Hutchinson, 2017). The central government and BP Batam promote the area as a "Smart City" and "Indonesia's Digital Gateway" (Sari & Pamadi, 2019; Fajrah et al., 2023). Projects from Batam's authorities, such as Nongsa Digital Park and the development of the International Data Center, reflect this new direction. Although the approach includes elements of Strategic Planning that adapt to global trends, it still has weaknesses. Some of the projects are ambitious, one-off initiatives without sustained effort. Nonetheless, infrastructure development has affected several coastal areas without meaningful consultation, such as the case of Rempang Island (Jatmika et al., 2025).

4.2. Dualism of Governance in Batam

One of the biggest challenges in development planning in Batam lies not only in the technical aspects or fiscal capacity, but also in the unique and complex institutional structure (Respationo & Thapa, 2024). Since its development, two main government institutions have managed Batam: the Batam City Government as the regional administrative authority, and BIFZA (BP Batam), formerly known as the Otorita Batam, as the representative of the central government in managing industrial and investment areas. This institutional structure stems from central policy in the 1970s, when the Indonesian government developed Batam as a strategic industrial and free trade area to support oil exploration and compete with Singapore. To that end, BP Batam was given authority in land management, licensing, investment, and infrastructure. Meanwhile, day-to-day administrative functions were carried out by the Batam City Government. The two institutions worked side by side, but not always in harmony.

Respationo and Thapa (2024) argue that overlapping authority between the Batam City Government and BP Batam creates ambiguity in roles and responsibilities, affecting public services and development effectiveness. Dalla and Hutabarat (2018) further show that this dualism extends to critical areas, including land management, spatial planning, forestry, and asset administration. Limited institutional integration generates uncertainty for investors and may delay development and trigger administrative conflicts. For example, investors may obtain location permits from BP Batam but struggle in secure Building Construction Permits or environmental documents from the Batam City Government. Although the central government introduced the Special Economic Zone (SEZ) framework to harmonize the roles of both institutions, the overlap remains unresolved. S et al. (2019) note that inadequate regulatory revisions have allowed institutional duplication to persist.

From a planning theory perspective, this dualism shows the complexity of planning the development of the Batam region. The more power involved, the more likely it is to spark power disputes. Planning cannot be effective with just a "good plan" on paper, but requires strong institutional coordination, recognition of the role of each actor, and collaborative mechanisms that can mediate conflict. In other words, good governance. Without it, the inequality of planning policies and practices will continue and ultimately harm the Batam community as the main recipient of the impact of the policy. The elaboration of how this dualism affects each of the planning documents will be explained next.

4.3. Planning Paradigm Suitability Evaluation

Governance dualism affects multiple layers of Batam's planning, from local strategic documents such as the RPJMD and RTRW to the Special Economic Zone (*Kawasan Ekonomi Khusus*/KEK) framework and cross-border cooperation. Among these instruments, the RPJMD serves as a political and technocratic document outlining the regional head's vision, mission, and five-year development priorities (Prasetyo et al., 2023). In Batam, its priorities include strengthening manufacturing, promoting investment, expanding digital infrastructure, and improving residential areas. However, coordination between the Batam City Government's RPJMD and BP Batam's agenda and authority remains problematic (Respationo & Thapa, 2024). As a central government agency, BP Batam controls strategic areas such as land management and major investments that fall beyond the RPJMD's effective reach. Consequently, the RPJMD has limited capacity to guide Batam's overall development. From a planning perspective, this creates a persistent disconnect between development vision and implementation.

The RTRW is a long-term spatial planning document (20 years) that determines zoning, spatial allocation, and direction of regional development (Sulistyawan et al., 2018). The Batam City RTRW (2021–2041) emphasizes Batam's transformation into a digital city and international logistics center, including high-tech industrial areas in Nongsa and Tanjung Uncang. However, the Batam RTRW is often constrained in implementation because it lacks full authority over land owned and managed by BP Batam. There are cases where the allocation of space in the RTRW differs from the land allocation map version of BP Batam. In the past, similar cases have caused conflict between agencies and uncertainty for investors. Additionally, the Batam RTRW has not yet adequately anticipated climate change impacts, such as sea level rise and tidal flooding in coastal areas (Susilo et al., 2025). Another ecological issue that should be mentioned is damage to protected forests (hutan lindung) that are progressively eroded by industrial activities. This reflects weak integration between growth planning and resilience planning.

Batam's status as a Special Economic Zone (SEZ) since 2019 has provided major incentives for investors, including tax breaks, ease of licensing, and export facilities. Areas such as the Nongsa SEZ and the Batamindo SEZ are promoted as centers for the creative industry and digital technology (Provost & Kennard, 2023). However, the main criticism of SEZs in Batam is their exclusive nature. Many SEZ areas operate in a closed manner. In generating profit, some enterprises are not creating mutual connections with the surrounding community in the form of improving the skills of the local workforce, distributing economic benefits, or arranging the surrounding space (Aritenang, 2020). From a planning theory perspective, this shows a bias towards growth-oriented planning and ignores the principle of equity-based planning. This is understandable because that is how the private sector works. The government has to step up to make it socially equitable. In addition, the determination of SEZ zones sometimes clashes with the RTRW and causes legal confusion, because SEZs are regulated by separate PPs that sometimes conflict with local planning (Dalla & Hutabarat, 2018).

Batam became the border that envisioned Indonesia, Malaysia, and Singapore within an economic and geopolitical corridor (Lindquist, 2010; Provost & Kennard, 2023). It gave Batam a strategic position in cross-border cooperation. Collaboration takes several forms, including the Batam Industrial Park (Batam–Singapore cooperation), the Sister City Agreement, and participation in the ASEAN Smart Cities Network (ASCN) (Abdi, 2023). However, this cooperation is mostly elite-driven and not rooted in local needs. Not many Batam residents feel the direct benefits of this cross-border cooperation, especially in terms of technology transfer, decent job creation, and local human resource development (Jatmika et al., 2025). Cross-border collaboration is more often seen as high-level economic diplomacy rather than an inclusive development strategy.

Classical planning such as RCP and Incremental Planning are the foundation of many modern planning practices in various parts of the world. However, in the context of complex border cities such as Batam, they intersect with geopolitical challenges, global economic pressures, and social inequality. The application of this model as a whole actually shows many limitations. The RCP model developed in the era of believes that planning can be scientific, objective, and rational (Gil & Lucchesi, 2021). By assuming all data are available and reliable, it emphasizes a systematic approach in identifying problems, setting goals, evaluating alternatives, and choosing the best solution based on data-driven cost-benefit analysis. In practice, this model is often adopted in the preparation of long-term planning documents such as the RTRW or RPJMD in Indonesia. Batam included. The implementation of RCP in Batam has been influenced by its designation as an industrial area under a presidential decree in 1971 (Ahmad & Pradjoko, 2024). Table 1 shows the summary of rational comprehensive planning implementation in Batam.

Table 1. Summary of Rational Comprehensive Planning Implementation in Batam

Aspect	RCP Characteristics	Reality in Batam
Core Approach	Technocratic, linear, and top-down. Relies heavily on data, forecasts, and clear objectives.	RPJMD and RTRW reflect RCP logic through comprehensive targets for infrastructure and investment zones
Institutional Integration	Assumes clear governance hierarchy and institutional harmony for plan execution.	Governance dualism between Pemko Batam and BP Batam creates overlapping and sometimes conflicting plans.
Stakeholder Engagement	Minimal public involvement. Experts and planners dominate decision-making.	Planning prioritizes investor interests, with limited meaningful public and community participation (Permana et al., 2022).
Flexibility and Adaptability	Low. Emphasizes rigid long-term frameworks. Difficult to adjust once formalized.	Batam's dynamic development requires greater flexibility and rapid adaptation (Aritenang, 2017).
Addressing Marginalized Groups	Often overlooks equity or justice unless explicitly included in objectives.	Ruli and displaced kampung communities often receive limited consideration, particularly in reclamation and industrial expansion areas (Pemko Batam, 2021).
Outcomes in Batam	Attempts at comprehensive plans often clash or remain unimplemented.	Integrated development projects face delays due to institutional disputes, funding constraints, and weak coordination (Respationo & Thapa, 2024).

In response to the rigidity of the RCP, Lindblom (2018) proposed the Incrementalism model. Often described as "muddling through," incremental planning makes decisions incrementally and adjusts them to small changes from previous policies. This approach is relevant in contexts of limited information and political capacity, such in bureaucracies in developing countries. Table 2 shows the summary of incremental planning implementation in Batam.

Table 2. Summary of Incremental Planning Implementation in Batam

Aspect	Incremental Characteristics	Reality in Batam
Core Approach	Decision-making through small, step-by-step adjustments or "muddling through."	Policies evolve incrementally amid political hesitation, institutional conflict, and uncertainty (Dalla & Hutabarat, 2018).
Institutional Integration	Fragmented authority managed through compromise and negotiation.	BP Batam and Pemko Batam rely on piecemeal adjustments to avoid institutional conflict.
Stakeholder Engagement	Ad hoc stakeholder inclusion without a formal engagement model.	Public input often emerges only after conflicts, such as evictions or land reclamation disputes in Rempang-Galang.
Flexibility and Adaptability	High flexibility in responding to changing circumstances.	Incremental adjustments enable responses to investor needs and regulatory changes (Negara & Hutchinson, 2020).
Addressing Marginalized Groups	May provide short-term benefits to disadvantaged groups.	Compensation and relocation measures may address immediate demands but rarely resolve structural issues (Jatmika et al., 2025).
Outcomes in Batam	Progress has been gradual and fragmented, with no breakthroughs.	SEZ integration, infrastructure connectivity, and digital economy development remain gradual and incomplete (Permana et al., 2022).

Strategic Planning was originally developed in the military but has been adapted into urban and regional planning practices. This approach focuses on creating a framework like a CEO in developing his company (Theng, 2026). By setting long-term goals and identifying internal strengths and weaknesses, this approach seeks opportunities to achieve a development vision. In Batam, this approach appears in policy documents such as the KEK Master Plan and Batam's vision as "Indonesia's Gateway to the International World". However, a gap remains between planning on paper and implementation in reality. Table 3 shows the summary of Rational Comprehensive Planning Implementation in Batam.

Table 3. Summary of Strategic Planning Implementation in Batam

Aspect	Strategic Characteristics	Reality in Batam
Core Approach	Long-term vision, selective priorities, and integration of planning and implementation.	RPJMD, KEK, and cross-border agendas provide strategic direction, but implementation is uneven due to fragmented authority and policy shifts.
Institutional Integration	Requires stakeholder alignment and strong leadership across sectors and agencies.	Dual governance creates competing priorities and jurisdictional overlaps (Permana et al., 2022).
Stakeholder Engagement	Emphasizes strategic partnerships with key actors,	Central policies and investor interests dominate, with limited grassroots involvement (Prasetyo et al., 2023).

Aspect	Strategic Characteristics	Reality in Batam
	often through top-down coordination.	
Flexibility and Adaptability	Medium-to-high flexibility in adjusting priorities.	Batam adapts to changing development agendas, but policy shifts and leadership turnover disrupt continuity (Syuzairi et al., 2024).
Addressing Marginalized Groups	Prioritizes aggregate growth and competitiveness.	Industrial and competitiveness agendas often overlook informal workers, displaced communities, and *kampung tua* (Amri et al., 2023).
Outcomes in Batam	Can produce high-impact development when institutions support them.	Major projects often face delays due to overlapping responsibilities and weak implementation (S et al., 2019; Pascal, 2023).

The communicative planning approach emphasizes the importance of communication between actors, public deliberation, and reaching consensus in the planning process. This model shifts the focus from planners as the sole experts to facilitators of dialogue between interests (Kivits & Sawang, 2021). The main characteristics of Communicative Planning include inclusive participation, such as collaborating with marginalized groups to voice their views in the planning process, and social legitimation, represented by incorporating community suggestions. Table 4 shows the summary of communicative planning implementation in Batam.

Table 4. Summary of Communicative Planning Implementation in Batam

Aspect	Communicative Characteristics	Reality in Batam
Core Approach	Emphasizes dialogue among experts, communities, and other stakeholders.	Planning remains largely technocratic and investor-oriented, with limited meaningful dialogue (S et al., 2019).
Institutional Integration	Relies on horizontal coordination and institutional trust.	Dual governance between Pemko Batam and BP Batam weakens coordination and institutional trust.
Stakeholder Engagement	Promotes inclusive dialogue across public, private, and community actors.	Participation often remains top-down, with limited roles for communities and NGOs as knowledge contributors (Anatami et al., 2024; Jatmika et al., 2025).
Flexibility and Adaptability	Emphasizes participatory processes and responsiveness to stakeholder input.	Musrenbang allows local adjustments, while RTRW and KEK planning remain largely rigid and centrally driven.
Addressing Marginalized Groups	Depends on inclusive facilitation and meaningful deliberation.	*Kampung tua* communities and informal workers rarely receive meaningful platforms (Jatmika et al., 2025).
Outcomes in Batam	Can strengthen understanding, trust, and the legitimacy of decisions.	Participation is more visible in Musrenbang but has limited influence on strategic planning and investment decisions.

Advocacy Planning is rooted in the civil rights movement and emphasizes that planners are not neutral. Planners must side with marginalized groups and advocate for more equitable policy alternatives, like a defense lawyer (Sager, 2022). This approach is relevant of analyzing land distribution inequality in Batam. Many urban poor people live in areas prone to eviction because they are seen as having violated formal spatial planning regulations. In Batam's context, advocacy for the right to

adequate housing, basic services, and recognition of informal settlements becomes very important. Table 5 shows the summary of advocacy planning implementation in Batam.

Table 5. Summary of Advocacy Planning Implementation in Batam

Aspect	Advocacy Characteristics	Reality in Batam
Core Approach	Planners advocate for marginalized and underrepresented communities.	*Kampung tua* residents, informal workers, and relocated communities have limited access to planning processes; NGOs and academics sometimes act as informal advocates (Ahmad & Pradjoko, 2024).
Institutional Integration	Challenges dominant institutions and promotes equity.	Institutional dualism between Pemko Batam and BP Batam limits space for public advocacy (Respationo & Thapa, 2024).
Stakeholder Engagement	Prioritizes meaningful participation of marginalized groups.	Civil society faces limited access to information and decision-making, with participation often occurring after plans are drafted (Jatmika et al., 2025).
Flexibility and Adaptability	Responds to community needs and justice concerns.	Community resistance has sometimes delayed or influenced land reclamation and resettlement plans (Anatami et al., 2024).
Addressing Marginalized Groups	Centers marginalized groups, livelihoods, and tenure security.	Development has generated inequalities affecting peri-urban communities and *kampung tua* (Lindquist, 2010; Ahmad & Pradjoko, 2024; Anatami et al., 2024).
Outcomes in Batam	Can strengthen recognition of community rights.	Advocacy has gained media and legal attention, but impacts remain largely temporary without structural reform (Anatami et al., 2024; Jatmika et al., 2025).

Neoliberal planning encourages deregulation, privatization, and public-private partnerships (Baeten, 2017). At the same time, it reduces the role of public deliberation and redistributive policies. In Batam's case, neoliberal logic is evident in its investor-centered planning, where infrastructure and zoning are tailored to global capital needs. Examples can be seen in the construction of the industrial park and international part (Sari & Pamadi, 2019). This policy sometimes sidelines community interests. Table 6 shows the summary of neoliberal planning implementation in Batam.

Table 6. Summary of Neoliberal Planning Implementation in Batam

Aspect	Neoliberal Characteristics	Reality in Batam
Core Approach	Market-led development, minimal state intervention, and privatization of services.	Investment-driven development through free trade, tax incentives, and deregulation to attract foreign capital (Negara & Hutchinson, 2020).
Institutional Integration	Public-private partnerships (PPPs) dominate planning and service provision.	BP Batam combines regulatory and operational roles, prioritizing investor coordination (S et al., 2019; Aritenang, 2020).
Stakeholder Engagement	Privileges capital owners and elite interests. Civil society is sometimes sidelined.	Consultations favor industrial and investor groups, with limited inclusion of marginalized

Aspect	Neoliberal Characteristics	Reality in Batam
		communities (Anatami et al., 2024).
Flexibility and Adaptability	High responsiveness to market signals and investor demand. Spatial planning can be reshaped to fit economic trends.	Development priorities shift with investment trends and national economic strategies, from free trade to digital and green industries (Pascal, 2023; Susilo et al., 2025).
Addressing Marginalized Groups	Market-oriented development often overlooks or negatively impacts marginalized groups.	Marginalized groups face displacement, labor insecurity, and limited planning attention (Ahmad & Pradjoko, 2024; Jatmika et al., 2025).
Outcomes in Batam	Rapid economic growth and infrastructure modernization, but sometimes at the cost of social cohesion, environmental degradation, and democratic control.	High economic and industrial output coexist with environmental degradation and urban inequality (Pemko Batam, 2021).

Evaluating mainstream planning theories against Batam's fragmented institutional environment reveals a distinct gap between theoretical ideals and practical governance. Rigid, top-down models struggle under the dual authority of Pemko Batam and BP Batam, while market-driven and pragmatic approaches better reflect the city's recent development trajectory. The synthesis below assesses the current suitability and practical manifestation of all six planning paradigms in Batam, highlighting how institutional dualism limits traditional comprehensive planning while favoring neoliberal, strategic, and incremental adaptations. Table 7 shows the evaluation of the suitability of planning paradigm implementation in Batam.

Table 7. Evaluation of Suitability of Planning Paradigm Implementation in Batam

Planning Theory	Key Principles	Suitability to Batam Currently	Reasoning
Rational Comprehensive Planning (RCP)	Linear, data-driven, and top-down; suited to stable institutions.	Less Likely	Applied in RPJMD assessment, but dual governance and overlapping authorities hinder rigid, integrated implementation.
Incrementalism	Small, adaptive changes through "muddling through."	Likely	Fits Batam's pragmatic responses to BP Batam–Pemko tensions, but offers limited transformative direction for equity.
Advocacy Planning	Represents marginalized and underrepresented groups.	Moderate	Relevant for countering investor-dominated planning, but civil society has limited institutional influence.
Communicative Planning	Dialogue, mutual learning, and consensus building.	Less Likely	Limited in practice despite its relevance for improving cross-institutional coordination and community participation.
Strategic Planning	Vision-setting, priority selection,	Likely	Aligns with Batam's long-term development and

Planning Theory	Key Principles	Suitability to Batam Currently	Reasoning
	and stakeholder alignment.		regional integration agendas, but limited participation may reinforce exclusion.
Neoliberal Planning	Market-oriented; emphasizes investment, competitiveness, and private-sector involvement.	Likely	Reflects Batam's investment- and infrastructure-driven development, but may intensify social and spatial inequality without inclusive planning.

5. Discussion

The findings indicate that Batam's planning trajectory cannot be adequately explained by a single planning paradigm. Instead, its planning practice reflects a hybrid configuration shaped by institutional dualism, economic priorities, and uneven stakeholder involvement. The overlapping authority of Pemko Batam and BP Batam creates a structural condition in which comprehensive planning is difficult to translate consistently into implementation. This finding is consistent with Dalla and Hutabarat (2018), who identified overlapping authority in the management of Batam's economic zones, and with Respationo and Thapa (2024), who linked institutional dualism to coordination and governance challenges. Thus, the limitations of Rational Comprehensive Planning (RCP) in Batam are not simply associated with the rigidity of comprehensive planning itself, but also with the absence of a unified institutional structure assumed by the model. The finding supports Gil and Lucchesi's (2021) critique that RCP relies on assumptions of comprehensive information, rational decision-making, and coordinated implementation that can be difficult to sustain in complex planning environments.

In this context, Incrementalism appears as a pragmatic response to fragmented authority. Rather than implementing fully integrated plans, Batam's institutions tend to accommodate changing priorities through gradual adjustments, negotiation, and piecemeal coordination. This pattern corresponds with Lindblom's (2018) conception of incremental decision-making. It is also consistent with Hildén et al. (2004), who emphasize that planning outcomes emerge through interactions among actors rather than formal procedures alone. The finding further parallels Mäntysalo et al. (2019), whose study of Lahti demonstrates how strategic incrementalism can emerge through successive adjustments within planning processes. However, the Batam case also reinforces the limitation of incrementalism. Although it provides flexibility under institutional uncertainty, it may not sufficiently address persistent structural issues such as fragmented authority and spatial inequality.

The stronger manifestation of Strategic and Neoliberal Planning further explains Batam's development trajectory. Long-term investment priorities, infrastructure development, economic zones, and international connectivity reflect the selective and goal-oriented character of strategic planning described by Albrechts (2004). At the same time, the emphasis on investment, competitiveness, and development-oriented infrastructure corresponds with neoliberal planning (Baeten, 2017). This finding aligns with Aritenang (2017) and Negara and Hutchinson (2020), who highlight the centrality of investment and Batam's changing economic role. However, the findings also reflect Brenner and Theodore's (2002) argument that neoliberal planning is locally mediated rather than uniformly implemented. In Batam, market-oriented development coexists with institutional fragmentation and produces uneven attention to social and spatial concerns.

Conversely, communicative and advocacy planning remain less institutionalized. Although participatory mechanisms such as Musrenbang provide spaces for public involvement, their influence on major strategic and investment decisions appears limited. This finding reflects the concerns of Kivits and Sawang (2021) and Healey's (2020) about the importance of meaningful dialogue and collective knowledge in planning. Similarly, the limited influence of marginalized communities supports Sager's (2022) observation that advocacy planning struggles in translate representation into structural change. The findings suggest that Batam represents a hybrid planning configuration in which strategic and neoliberal logics shape development priorities, incrementalism facilitates adaptation to fragmented governance, while communicative and advocacy approaches remain comparatively peripheral. This indicates that the applicability of planning paradigms depends not only on their theoretical principles but also on the institutional conditions through which planning is implemented.

6. Conclusion

This study finds that no single planning paradigm adequately captures Batam's institutional and spatial complexity. The analysis shows that RCP is constrained by fragmented authority between Pemko Batam and BP Batam, while Incrementalism reflects the gradual adjustments used to manage institutional and policy uncertainty. Strategic and neoliberal planning are more visibly manifested in Batam's investment-oriented development, infrastructure priorities, economic zones, and international connectivity. Meanwhile, Communicative and Advocacy Planning remain less institutionalized, particularly in giving marginalized communities such as informal settlers and kampung tua residents meaningful influence. These findings indicate that Batam's planning practice is characterized by a hybrid configuration in which different planning logics coexist, but unequal institutional capacity, stakeholder influence, and implementation authority shape their application.

The findings have practical implications for strengthening coordination between Pemko Batam and BP Batam, broadening meaningful stakeholder participation, and incorporating social equity into development and investment decisions. Rather than relying on a single planning model, planning practice in Batam may benefit from combining the coordination and long-term orientation of strategic planning with the adaptability of incrementalism and the participatory and equity-oriented principles of communicative and advocacy planning. However, this study is limited by its qualitative single-case design and reliance on secondary documentary sources, which constrain direct examination of stakeholders' experiences and perceptions. Future research could therefore employ interviews, focus groups, or mixed-method approaches involving government agencies, investors, communities, and civil society organizations to examine how planning decisions are negotiated and implemented in practice. Comparative studies with other Indonesian border or special economic regions could also assess whether the identified hybrid planning configuration is specific to Batam or reflects broader patterns of planning under fragmented governance.

References

Abdi, R. P. (2023). Assessing the impacts of paradiplomacy on Batam-Singapore cooperation: a case study in tourism, economic growth, and infrastructure development. *Journal of Paradiplomacy and City Networks*, *2*(1), 12-20. https://doi.org/10.18196/jpcn.v2i1.27.

Ahmad, A., & Pradjoko, D. (2024). Poverty, criminality, and prostitution: Impacts of the development of Batam as an industrial city (1971-1998). *Collective Memory, Marginality, and Spatial Politics in Urban Indonesia*, *2*(1), 99–112.

Albrechts, L. (2004). Strategic (spatial) planning reexamined. *Environment and Planning B: Planning and Design*, *31*(5), 743-758. https://doi.org/10.1068/b3065.

Amri, M., Widjarnarso, T. H., Roberts, M., & Li, Y. (2023). Indonesia: Batam. In *Private Cities*. Washington DC: World Bank Publication.

Anatami, D., Fadhil, S., & Respationo, S. (2024). Juridical analysis of investment in Batam (Case study in the Rempang-Galang Area). *International Journal of Social Welfare*, *1*(4), 1–11.

Aritenang, A. F. (2017). Special economic zone at the crossroads: The case of Batam. *Jurnal Ilmu Sosial dan Ilmu Politik*, *21*(2), 132-146. https://doi.org/10.22146/jsp.30438.

Aritenang, A. F. (2020). The continuity of Batam importance to the development of BBK Region: A regional economic perspective. In *6th International Conference on Social and Political Sciences (ICOSAPS 2020)* (pp. 317-323). Dordrecht: Atlantis Press. https://doi.org/10.2991/assehr.k.201219.048.

Athallah, M. F., & Fitri, N. N. (2025). Optimizing ESG-Based TOD implementation to foster inclusive and sustainable economic growth. *Arthatama: Journal of Business Management and Accounting*, *9*(1), 173–186. https://doi.org/10.54518/art.9.1.2025.649.

Baeten, G. (2017). Neoliberal planning. In *The Routledge Handbook of Planning Theory*. Oxfordshire: Routledge.

Brenner, N., & Theodore, N. (2002). Cities and the geographies of "actually existing neoliberalism". *Antipode*, *34*(3), 349-379. https://doi.org/10.1111/1467-8330.00246.

Dalla, A. Y., & Hutabarat, F. N. (2018). Tumpang tindih kewenangan pengembangan kawasan ekonomi khusus Batam. *Matra Pembaruan*, *2*(2), 139–148. https://doi.org/10.21787/mp.2.2.2018.139-148.

Diskominfo Kota Batam. (2022). *Buku Profil Kota Batam Tahun 2022*. Dinas Komunikasi dan Informatika Kota Batam. Retrieved on June 20, 2026, from https://kominfo.batam.go.id/wp-content/uploads/sites/2/2022/11/BUKU-PROFIL-KOTA-BATAM-2022-2.pdf.

Fajrah, N., Rasid Ridho, M., & Salsabila, L. (2023). Evaluating government readiness for Industry 4.0: A case study of Batam City. In *E3S Web of Conferences* (Vol. 440, p. 04014). Les Ulis: EDP Sciences. https://doi.org/10.1051/e3sconf/202344004014.

Forester, J. (2018). Planning in the Face of Power. In *Classic Readings in Urban Planning* (pp. 165-179). Oxfordshire: Routledge.

Gil, E., & Lucchesi, E. (2021). Community planning. In *Planning: Made easy: A Manual for Planning Commissioners, Members of Zoning Boards of Appeal, and Trainers*. Oxfordshire: Routledge.

Healey, P. (2020). *Collaborative planning: Shaping places in fragmented societies*. London: Bloomsbury Publishing.

Hildén, M., Furman, E., & Kaljonen, M. (2004). Views on planning and expectations of SEA: the case of transport planning. *Environmental Impact Assessment Review*, *24*(5), 519-536. https://doi.org/10.1016/j.eiar.2004.01.003.

Jatmika, S., Ahmad, M. Z., Muzwardi, A., Marlinda, A. P., & Yanuariandi, M. A. (2025, March). Human insecurity issues in the Rempang ecocity development conflict. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1475, No. 1, p. 012028). Bristol: IOP Publishing. https://doi.org/10.1088/1755-1315/1475/1/012028.

Kivits, R., & Sawang, S. (2021). Communicative planning. In *The Dynamism of Stakeholder Engagement: A Case Study of the Aviation Industry* (pp. 19-27). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-70428-5_3.

Lindblom, C. (2018). The science of "muddling through". In *Classic readings in urban planning* (pp. 31-40). Oxfordshire: Routledge.

Lindquist, J. (2010). Putting ecstasy to work: Pleasure, prostitution, and inequality in the Indonesian borderlands. *Identities*, *17*(2), 280–303. https://doi.org/10.1080/10702891003733500.

Lodan, K. T., Khairina, E., Dompak, T., Salsabila, L., & Fathani, A. T. (2023). Readiness of the Batam City Government in implementing sustainable transportation. *Masyarakat, Kebudayaan & Politik*, *36*(2), 246–259. https://doi.org/10.20473/mkp.V36I22023.246-259.

Mäntysalo, R., Tuomisaari, J., Granqvist, K., & Kanninen, V. (2019). The strategic incrementalism of Lahti master planning: Three lessons. *Planning Theory & Practice*, *20*(4), 555-572. https://doi.org/10.1080/14649357.2019.1652336.

Negara, S. D., & Hutchinson, F. (2020). Batam: Life after the FTZ?. *Bulletin of Indonesian Economic Studies*, *56*(1), 87-125. https://doi.org/10.1080/00074918.2019.1648752.

Nurzahiroh, K., & Putri, E. (2023). The sharia banking dispute settlement forum as the principle of freedom of contract post decision of the constitutional court no. 93/PUU-X/2012. *Research Horizon*, *3*(4), 454-466. https://doi.org/10.54518/rh.3.4.2023.159.

Pascal, E. (2023). Identification of leading sectors in Batam: LQ, DLQ, and Shift-Share analysis. *Jurnal Ekonomi*, *28*(2), 292-308. https://doi.org/10.24912/je.v28i2.1634

Pemko Batam. (2021). *Rencana Pembangunan Jangka Menengah Daerah Kota Batam Tahun 2021-2026.* Retrieved on June 21, 2026, from https://bappeda.batam.go.id/rpjmd-2021-2026.

Permana, A., Djohan, D., Sartika, I., & Lukman, S. (2022). Disharmonization in managing government affairs in Batam City, Riau Islands Province. *Indonesian Journal of Multidisciplinary Science*, *2*(3), 2169–2182. https://doi.org/10.55324/ijoms.v2i3.352.

Prasetyo, N. D., Arrsa, R. C., Haq, C. A., & Dewi, R. C. K. (2023). The juridical framework of the pentahelix model in the preparation of regional medium-term development planning. *Jurnal IUS Kajian Hukum dan Keadilan*, *11*(3), 569-588. https://doi.org/10.29303/ius.v11i3.1286.

Provost, C., & Kennard, M. (2023). Private cities. In *Silent Coup: How Corporations Overthrew Democracy*. London: Bloomsbury Publishing.

Respationo, S., & Thapa, N. Y. (2024). Optimizing regional governance in batam city government-business entity institutional dualism. *SASI*, *30*(1), 87-99. https://doi.org/10.47268/sasi.v30i1.1869.

Royle, S. A. (1997). Industrialisation in Indonesia: The example of Batam Island. *Singapore Journal of Tropical Geography*, *18*(1), 89–98. https://doi.org/10.1111/1467-9493.00006.

S, L. P., Matsunami, J., & Setiawan, B. (2019). The institutional dualism and its impact on economic development the case of dualism in Batam. *Journal of Applied Geospatial Information*, *3*(2), 244–252. https://doi.org/10.30871/jagi.v3i2.1786.

Sager, T. (2022). Advocacy planning: were expectations fulfilled? *Planning Perspectives*, *37*(6), 1205 – 1230. https://doi.org/10.1080/02665433.2022.2040189.

Sari, Y. A., & Pamadi, M. (2019). The smart port concept of Batu Ampar Port in Batam. In *IOP Conference Series: Earth and Environmental Science* (Vol. 343, No. 1, p. 012095). Bristol: IOP Publishing. https://doi.org/10.1088/1755-1315/343/1/012095.

Sulistyawan, B. S., Verweij, P. A., Boot, R. G. A., Purwanti, B., Rumbiak, W., Wattimena, M. C., Rahawarin, P., & Adzan, G. (2018). Integrating participatory GIS into spatial planning regulation: The case of Merauke District, Papua, Indonesia. *International Journal of the Commons*, *12*(1), 26–59. https://doi.org/10.18352/ijc.759.

Susilo, F. T., Sari, D. N., Priyana, Y., & Mukasyaf, A. A. (2025, January). Analysis of the influence of built-up land on the availability of green open space using Sentinel-2A imagery in Bengkong Sub-district, Batam City in 2023. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1438, No. 1, p. 012026). Bristol: IOP Publishing. https://doi.org/10.1088/1755-1315/1438/1/012026.

Syuzairi, M., Sofia, M., & Salim, D. F. (2024). Evaluation of Accountability in The Performance Report of The Batam Free Trade and Free Port Authority (bp Batam). *Journal of Ecohumanism*, *3*(3), 726–737. https://doi.org/10.62754/joe.v3i3.3360.

Theng, L. G. (2026). The Marketing Environment. In *Strategic Marketing Management in Asia: Case Studies and Lessons across Industries (2nd Edition)*. Leeds: Emerald. https://doi.org/10.1108/978-1-83753-048-920262004.

Valentina, A., Arieta, S., Samnuzulsari, T., Setiandika Igiasi, T., & Rahmawati, N. (2024). Social mapping in Batam City for urban development. In *BIO Web of Conferences* (Vol. 134, p. 04001). Les Ulis: EDP Sciences. https://doi.org/10.1051/bioconf/202413404001.

van Grunsven, L., & Hutchinson, F. E. (2017). The evolution of the electronics industry on Batam Island (Riau Islands Province, Indonesia): an evolutionary trajectory contributing

to regional resilience? *GeoJournal*, *82*(3), 475–492. https://doi.org/10.1007/s10708-015-9692-9.

Acknowledgment
We gratefully acknowledge the contributions of individuals who supported the completion of this article.

Funding Information
This research did not receive any funding.

Conflict of Interest Statement
The authors declare that there is no conflict of interest.

Ethical Approval and Originality Statement
Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement
The data that support the findings of this study are available from the corresponding author upon reasonable request.



Copyright: © 2026 by the authors.
This work is licensed under the terms and conditions of the Creative Commons Attribution-ShareAlike 4.0 International License (https://creativecommons.org/licenses/by-sa/4.0/).