



## **PUBLIC POLICY EVALUATION AND ENVIRONMENTAL GOVERNANCE OF THE REMPANG ECO CITY PROJECT : LESSONS FROM A CONTESTED NATIONAL STRATEGIC PROJECT IN INDONESIA**

### **EVALUASI KEBIJAKAN PUBLIK DAN TATA KELOLA LINGKUNGAN PROYEK KOTA EKOLOGI REMPANG: PELAJARAN DARI PROYEK STRATEGIS NASIONAL YANG DIPERDEBATKAN DI INDONESIA**

**Rika Meriza<sup>1\*</sup>, Yustina<sup>2</sup>**

<sup>1\*,2</sup> Universitas Negeri Riau, Email: [rikameriza902@gmail.com](mailto:rikameriza902@gmail.com)

\*email koresponden: [rikameriza902@gmail.com](mailto:rikameriza902@gmail.com)

DOI: <https://doi.org/10.62567/micjo.v3i3.2679>

#### **Abstract**

This study aims to analyze public policy evaluation and environmental governance issues surrounding the Rempang Eco City Project in Indonesia, particularly following its exclusion from the National Strategic Project agenda. The research employs a qualitative approach using a case study method and systematic literature review from government regulations, scientific journals, environmental organization reports, official investigations, and national media coverage related to Rempang Island. Data were analyzed using public policy and environmental mitigation perspectives. The findings indicate that the Rempang Eco City policy generated serious social conflicts, ecological threats, and legal uncertainty due to weak community participation during the policy formulation process. From an environmental mitigation perspective, the industrialization of Rempang Island has the potential to trigger coastal ecosystem destruction, air and water pollution, coastal abrasion, loss of fishermen's livelihoods, and prolonged social conflict. The government's recent decision to remove Rempang Eco City from the National Strategic Project list is considered an important corrective policy. However, unresolved legal and environmental governance issues remain. Policy evaluation based on effectiveness, efficiency, adequacy, equity, responsiveness, and appropriateness demonstrates that the Rempang Eco City policy failed to fulfill the principles of sustainable development and good governance.

**Keywords :** Public Policy, Disaster Mitigation, Rempang Island, Environmental Conflict, Rempang Eco City, Policy Evaluation.

#### **Abstrak**

Studi ini bertujuan untuk menganalisis evaluasi kebijakan publik dan isu tata kelola lingkungan yang terkait dengan Proyek Kota Ekologi Rempang di Indonesia, khususnya setelah dikeluarkan dari agenda Proyek Strategis Nasional. Penelitian ini menggunakan pendekatan kualitatif dengan metode studi kasus dan tinjauan pustaka sistematis dari peraturan pemerintah, jurnal ilmiah, laporan organisasi lingkungan, investigasi resmi, dan liputan media nasional terkait Pulau Rempang. Data dianalisis



menggunakan perspektif kebijakan publik dan mitigasi lingkungan. Temuan menunjukkan bahwa kebijakan Kota Ekologi Rempang menimbulkan konflik sosial yang serius, ancaman ekologis, dan ketidakpastian hukum akibat lemahnya partisipasi masyarakat selama proses perumusan kebijakan. Dari perspektif mitigasi lingkungan, industrialisasi Pulau Rempang berpotensi memicu kerusakan ekosistem pesisir, polusi udara dan air, abrasi pantai, hilangnya mata pencaharian nelayan, dan konflik sosial yang berkepanjangan. Keputusan pemerintah baru-baru ini untuk menghapus Kota Ekologi Rempang dari daftar Proyek Strategis Nasional dianggap sebagai kebijakan korektif yang penting. Namun, isu-isu hukum dan tata kelola lingkungan yang belum terselesaikan masih tetap ada. Evaluasi kebijakan berdasarkan efektivitas, efisiensi, kecukupan, kesetaraan, daya tanggap, dan kesesuaian menunjukkan bahwa kebijakan Kota Ekologi Rempang gagal memenuhi prinsip-prinsip pembangunan berkelanjutan dan tata kelola pemerintahan yang baik.

**Kata Kunci :** Kebijakan Publik, Mitigasi Bencana, Pulau Rempang, Konflik Lingkungan, Kota Ramah Lingkungan Rempang, Evaluasi Kebijakan.

## 1. INTRODUCTION

Industrial development in coastal and small island areas has become one of the most widely used development strategies among developing countries to accelerate national economic growth (World Bank, 2021), attract foreign direct investment, strengthen industrial downstreaming, and increase competitiveness in the global market. Coastal regions are often viewed by governments as strategic economic zones because they provide access to maritime transportation routes, international trade networks, fisheries resources, tourism potential, and industrial expansion opportunities. As a result, many developing countries have intensified industrialization policies in coastal regions through large-scale infrastructure and investment projects.

In Indonesia, the government has aggressively promoted National Strategic Projects (NSP) as an instrument to stimulate economic transformation and accelerate national development (Dunn, 2003). Through these projects, the government seeks to encourage industrial downstreaming, create employment opportunities, strengthen export-oriented industries, and increase state revenue. The NSP policy framework is also closely connected with Indonesia's broader economic modernization agenda, particularly in industrial manufacturing, energy, mining, tourism, and infrastructure development sectors.

However, despite their economic objectives, many National Strategic Projects in Indonesia have generated social conflict, environmental degradation, and agrarian disputes, particularly in coastal and indigenous areas. The implementation of large-scale industrial projects frequently places economic interests above ecological sustainability and community participation. Consequently, development policies that are intended to improve welfare often create new environmental and social vulnerabilities (Temper et al., 2021).

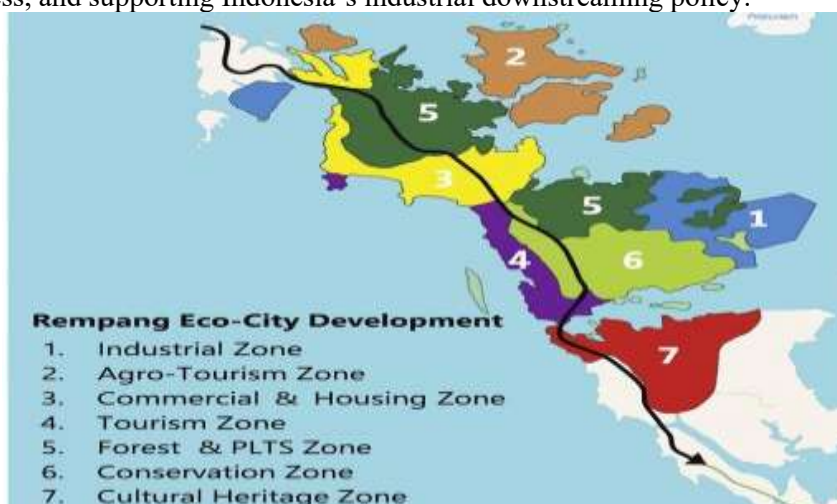
Several international studies have highlighted the increasing conflict between industrial expansion and environmental sustainability in coastal regions. According to UNEP (2022), large-scale industrialization in coastal ecosystems frequently generates ecological degradation, biodiversity loss, and socio-economic vulnerability among indigenous and coastal communities. Similarly, World Bank (2021) reports emphasize that development projects implemented without meaningful community participation often lead to social conflict, governance crises, and declining public trust toward state institutions.

Research conducted by Bennett et al. (2020) also explains that coastal industrial development in developing countries commonly creates environmental injustice because local communities bear environmental burdens while economic benefits are concentrated among investors and industrial actors. In addition, studies by Temper et al. (2021) demonstrate that ecological conflicts related to land acquisition and coastal industrialization are increasingly becoming global governance challenges, particularly in regions with vulnerable ecosystems and indigenous populations.



From a disaster mitigation perspective, coastal industrialization has also been associated with increased climate vulnerability, pollution risks, and ecosystem degradation. IPCC (2022) highlights that coastal regions and small islands are among the most vulnerable areas affected by environmental change, sea-level rise, and ecological disruption caused by unsustainable development activities. Therefore, sustainable governance and environmental mitigation strategies are essential components within contemporary coastal development policies.

One of the most controversial National Strategic Projects in Indonesia is the Rempang Eco City development plan located in Rempang Island, Batam City, Riau Islands Province (World Bank, 2021). The project proposed the construction of a large-scale integrated industrial area focusing on glass manufacturing industries supported by foreign investment. The project also included commercial zones, residential areas, tourism infrastructure, and supporting industrial facilities. The Indonesian government viewed the project as an important investment opportunity capable of increasing economic growth, creating employment opportunities, strengthening Batam's industrial competitiveness, and supporting Indonesia's industrial downstreaming policy.



**Figure 1. Planned Development Area of Rempang Eco City**

*Source: BP Batam Development Planning Report, 2024*

The Rempang Eco City project attracted significant attention because it involved cooperation with foreign investors in strategic industrial sectors. The planned investment was expected to transform Rempang Island into a modern industrial and economic hub integrated with international trade activities. Supporters of the project argued that the development would accelerate regional economic growth, improve infrastructure, and create thousands of employment opportunities for local communities.

Nevertheless, the project immediately triggered strong resistance from indigenous Malay communities living in Rempang Island. The local population rejected relocation plans because they feared losing ancestral lands, traditional villages, fisheries resources, and cultural identity that had existed for generations. For the indigenous Malay community, Rempang Island is not merely a residential area but also a historical and cultural space that represents social identity, collective memory, and traditional livelihoods (Bennett et al., 2020).



**Figure 2. Indigenous Malay Settlement in Rempang Island**

*Source: Trend Asia et al. (2023)*

The resistance of local communities also emerged because the development process was considered non-participatory and insufficiently transparent. Many residents argued that they were not adequately involved in policy discussions and environmental consultations regarding the project. The relocation policy created fears of social displacement, economic uncertainty, and long-term marginalization among coastal communities.

In addition to social conflict, environmental concerns became one of the central issues surrounding the Rempang Eco City project. Rempang Island is ecologically vulnerable because it contains important coastal ecosystems such as mangrove forests, fisheries resources, coral reefs, marine biodiversity, and protected coastal zones. These ecosystems serve essential ecological functions, including coastal protection, fisheries sustainability, carbon absorption, biodiversity conservation, and climate resilience.

Mangrove forests in Rempang Island, for example, play a significant role in preventing coastal abrasion, reducing wave energy, protecting coastal settlements from tidal flooding, and supporting marine life reproduction. Fisheries resources around the island also provide the primary source of livelihood for many local residents. Therefore, environmental degradation in Rempang Island would directly threaten both ecological sustainability and community welfare (UNEP, 2022).



**Figure 3. Mangrove Ecosystem and Coastal Area in Rempang Island**

*Source: Environmental Report Observation Documentation (2024)*

Large-scale industrialization in ecologically sensitive areas such as Rempang Island has the potential to generate serious environmental risks if sustainability principles are ignored. Industrial activities may contribute to deforestation, coastal ecosystem destruction, marine pollution, air pollution, increased carbon emissions, loss of biodiversity, and coastal vulnerability caused by climate change. Moreover, industrial expansion in coastal areas may also trigger social inequality, land conflicts, and environmental injustice among local communities.



The conflict escalated significantly in 2023 when security forces attempted to secure land measurement and land clearing activities in Rempang Island. Clashes occurred between residents and authorities, resulting in social tension, injuries, and public protests. The incident quickly attracted national and international attention because it raised broader issues concerning human rights protection, indigenous community rights, environmental sustainability, and public policy governance in Indonesia.



**Figure 4. Community Protest Against the Rempang Eco City Project**

*Source: Kompas.com National Media Documentation (2025)*

The Rempang conflict also reflected deeper structural problems in public policy implementation, particularly regarding the relationship between economic development, environmental governance, and community participation. Critics argued that the government prioritized investment interests and industrial expansion while neglecting ecological sustainability and indigenous rights protection.

In response to increasing public pressure and prolonged conflict, the Indonesian government issued Presidential Regulation Number 12 of 2025 concerning the 2025–2029 National Medium-Term Development Plan. Importantly, the new regulation no longer included Rempang Eco City as part of the National Strategic Project list. This decision became a significant political and policy turning point because it signaled a shift in the government's approach toward the controversial project.

Although the exclusion of Rempang Eco City from the National Strategic Project list was welcomed by many community groups and environmental organizations, legal and policy uncertainty remains unresolved. Several previous regulations related to the project still formally exist, creating ambiguity regarding the future status of industrial development in Rempang Island.

The Rempang case therefore represents an important example of the challenges faced by developing countries in balancing economic growth, industrial expansion, environmental sustainability, and indigenous community protection. It also highlights the importance of participatory governance, environmental justice, disaster mitigation, and sustainable coastal development policies.

This study offers several important novelties within the field of public policy and environmental governance studies in Indonesia. First, this research integrates public policy evaluation with environmental disaster mitigation perspectives in analyzing the cancellation of a National Strategic Project in a coastal and indigenous area. Previous studies on Rempang Island have generally focused separately on agrarian conflict, human rights issues, or environmental resistance, whereas this study combines policy evaluation and environmental mitigation analysis within a single analytical framework.

Second, this research develops a multidimensional environmental mitigation analysis based on nine environmental perspectives, including ecosystem sustainability, environmental economics, socio-cultural impacts, climate vulnerability, and environmental governance. This integrated approach provides a more comprehensive understanding of the environmental risks associated with strategic industrial development in small island regions.



Third, this study contributes to the discourse of sustainable coastal governance by emphasizing the importance of participatory governance, indigenous community protection, and environmental justice in the implementation of National Strategic Projects in Indonesia. Therefore, this research is expected to provide both theoretical and practical contributions to future policy formulation regarding sustainable industrial development in ecologically sensitive coastal areas.

Therefore, this study aims to comprehensively analyze public policy evaluation and environmental disaster mitigation prediction regarding the cancellation of strategic development in Rempang Island based on nine environmental perspectives.

## 2. RESEARCH METHOD

This research employs a qualitative approach with a case study design to comprehensively examine the public policy dynamics, environmental conflict, and disaster mitigation issues surrounding the Rempang Eco City development project in Rempang Island. The qualitative approach was selected because this study seeks to understand deeply and contextually the complex social, environmental, legal, and political phenomena emerging from the implementation and cancellation of the strategic industrial development policy.

Qualitative research is considered the most appropriate approach for this study because the Rempang case involves multidimensional issues that cannot be fully measured through quantitative statistical analysis alone. The conflict in Rempang Island involves interactions between government institutions, investors, indigenous Malay communities, environmental organizations, security forces, and civil society groups. Therefore, an interpretative and descriptive analytical approach is necessary to explore the meaning, impacts, and implications of the policy from various perspectives.

The study uses a case study design because Rempang Island represents a unique and contemporary policy case involving environmental governance, indigenous rights, coastal industrialization, and disaster mitigation within the context of National Strategic Projects in Indonesia. According to Yin (2018), case study research is appropriate when researchers aim to investigate contemporary phenomena within real-life contexts where the boundaries between phenomenon and context are not clearly evident. The Rempang Eco City conflict fulfills these characteristics because the policy process, environmental impacts, and social resistance are interconnected and influenced by broader political and economic structures.

This research focuses specifically on analyzing the policy formulation process, the implementation of the Rempang Eco City development plan, the emergence of social conflict, the environmental risks caused by industrialization, and the government's policy shift reflected in the cancellation of the project from the National Strategic Project list. The study also seeks to identify disaster mitigation strategies that can be applied in coastal industrial development areas based on environmental sustainability principles.

Data collection techniques in this study were conducted through systematic literature review. The literature review method was selected because the Rempang conflict has generated extensive documentation from government agencies, environmental organizations, academic institutions, human rights organizations, and national media. Through systematic literature review, the researcher was able to collect and synthesize various forms of information, arguments, findings, and policy documents related to the Rempang Eco City project.

The literature sources used in this study consist of several categories.

First, government regulations and official policy documents were analyzed to understand the legal framework and public policy structure related to the Rempang Eco City project. These documents include Presidential Regulations, Ministerial Regulations, environmental governance policies, and National Strategic Project regulations issued by the Indonesian government.

Second, scientific journals and academic publications were reviewed to obtain theoretical perspectives and previous research findings related to public policy, environmental conflict, coastal



development, disaster mitigation, and sustainable governance. Academic literature also provided conceptual foundations for evaluating policy effectiveness and environmental sustainability.

Third, reports published by environmental organizations and civil society institutions such as Walhi, Trend Asia, and environmental advocacy groups were examined to identify environmental risks, ecological impacts, and community perspectives regarding the Rempang Eco City project. These reports contain environmental assessments, ecosystem valuation studies, and documentation of ecological threats in Rempang Island.

Fourth, human rights investigation reports from institutions such as Komnas HAM and the Indonesian Ombudsman were analyzed to understand issues related to indigenous community rights, procedural justice, maladministration, and state responses during the conflict escalation process.

Fifth, national media publications and investigative journalism reports were utilized to trace the chronology of conflict events, government statements, public responses, and social dynamics related to the Rempang Eco City controversy. Media reports also provided updated information regarding protests, policy changes, and public debates surrounding the project.

Sixth, supporting academic studies concerning coastal ecosystems, mangrove conservation, environmental economics, and industrial pollution were used to strengthen the environmental disaster mitigation analysis within this research.

In addition to literature review, this study also applies policy document analysis to examine the substance, implementation, and implications of government regulations related to the Rempang Eco City project. Policy document analysis was conducted on Presidential Regulations, Ministerial Regulations, environmental governance documents, and National Strategic Project policy frameworks issued by the Indonesian government.

Through policy document analysis, the researcher identified inconsistencies, legal ambiguities, governance challenges, and environmental policy implications associated with the implementation and cancellation of the Rempang Eco City project. This analytical approach allows the study to evaluate not only the social and environmental impacts of the policy but also the institutional and regulatory dimensions influencing policy effectiveness and governance legitimacy.

The collected data were analyzed using content analysis techniques. Content analysis was employed to systematically identify, categorize, interpret, and synthesize information obtained from various literature sources. Through content analysis, the researcher examined relationships between public policy formulation, environmental threats, industrial development, social conflict, indigenous rights protection, and disaster mitigation strategies.

The analytical process involved several stages. The first stage consisted of data reduction, where relevant information related to public policy, environmental risks, and social conflict was selected and categorized. The second stage involved data presentation through descriptive and analytical explanations to facilitate interpretation of the findings. The final stage consisted of drawing conclusions regarding policy evaluation, environmental disaster prediction, and sustainable mitigation strategies for coastal development areas.

To strengthen the validity of the findings, this study also applied source triangulation by comparing information from government regulations, academic literature, environmental reports, media publications, and human rights investigations. This triangulation process was intended to ensure the credibility, consistency, and objectivity of the research findings.

Overall, the research method used in this study enables a comprehensive understanding of the Rempang Eco City conflict as a public policy issue involving environmental sustainability, social justice, coastal disaster mitigation, and indigenous community protection within the broader framework of sustainable development governance.



### 3. RESULT AND DISCUSSION

This section presents the findings and analysis of the Rempang Eco City policy conflict and environmental disaster mitigation issues based on the literature review conducted in this research. The discussion is organized systematically to explain the relationship between public policy formulation, environmental sustainability, industrial development, social conflict, and government policy evaluation regarding the cancellation of the Rempang Eco City National Strategic Project.

The findings reveal that the Rempang Eco City project was not merely an economic development policy but also represented a complex environmental governance issue involving indigenous rights, ecological sustainability, disaster mitigation, and political legitimacy. The implementation of the project created multidimensional impacts affecting social structures, environmental systems, coastal livelihoods, and public trust toward government institutions.

The results further indicate that the development policy in Rempang Island reflected the broader dilemma faced by many developing countries in balancing economic growth ambitions with environmental sustainability and social justice. In the context of Rempang Island, industrial expansion was promoted as a strategic economic opportunity; however, the policy implementation process generated serious social conflict and environmental concerns due to weak community participation and insufficient environmental protection mechanisms.

The following discussion elaborates the major findings of this study, including the basic concept of public policy in the Rempang case, the chronology of conflict in Rempang Island, policy controversies, government regulatory dynamics, environmental disaster mitigation analysis from nine environmental perspectives, and policy evaluation based on public policy evaluation criteria.

#### 1. Basic Concept of Public Policy

Public policy is generally understood as a set of decisions, actions, and strategies formulated by governments to address public problems and achieve collective goals within society. Public policy does not only reflect governmental authority but also represents the relationship between the state, society, economic interests, and social welfare. According to Thomas R. Dye, public policy refers to whatever governments choose to do or not to do. This definition emphasizes that government decisions, including the decision not to take action, have significant impacts on society and public life.

In the context of modern governance, public policy should not merely focus on economic growth and political interests. Instead, policies are expected to fulfill broader principles such as justice, sustainability, participation, accountability, and public welfare. Anderson also explains that public policy consists of purposive courses of action followed by governmental actors in dealing with public issues. Therefore, every public policy should be formulated through transparent procedures, community participation, and careful consideration of long-term impacts.

The Rempang Eco City project represents an example of a strategic public policy aimed at accelerating industrialization and investment in Indonesia. The government positioned the project as part of the National Strategic Projects program to strengthen industrial downstreaming, improve regional economic competitiveness, and increase employment opportunities. Through this policy, Rempang Island was projected to become a new industrial and commercial center integrated with global economic networks.

However, the implementation of the policy generated significant criticism because many observers considered that the government prioritized investment interests over environmental sustainability and indigenous community rights. The policy process was viewed as highly centralized and dominated by economic considerations rather than participatory governance principles.

One of the main weaknesses of the policy was the limited involvement of local communities during the formulation and implementation stages. Indigenous Malay communities living in Rempang Island argued that they were not meaningfully involved in discussions regarding relocation plans, environmental risks, and the future of their traditional villages. This situation created distrust toward the government and intensified social resistance.



From a public policy perspective, the Rempang Eco City conflict demonstrates how development policies may fail when governments ignore social legitimacy and environmental sustainability. Policies that prioritize economic growth without balancing ecological protection and social justice often produce long-term social conflict and governance crises.

Furthermore, the Rempang case illustrates the importance of integrating sustainable development principles into public policy frameworks. Sustainable development requires governments to balance economic interests with environmental protection and community welfare. In coastal and small island areas such as Rempang, policy decisions must consider ecological vulnerability, disaster risks, and the dependence of local communities on natural resources.

The failure to integrate these dimensions within the Rempang Eco City policy ultimately generated public resistance, environmental concerns, and political controversy. Therefore, the Rempang case provides an important lesson for policymakers regarding the necessity of participatory governance, environmental justice, and sustainable policy planning in strategic development projects.

## 2. Case Study of Rempang Island

Rempang Island is located in Batam City, Riau Islands Province, and forms part of Indonesia's strategic coastal and maritime region. The island possesses significant economic and ecological value because it is located near international shipping routes and contains important coastal ecosystems that support fisheries, mangrove forests, and marine biodiversity. For decades, the island has been inhabited by indigenous Malay communities who depend heavily on coastal resources for their livelihoods and cultural identity.

The indigenous communities in Rempang Island have historically lived in traditional villages known as *kampung tua*, which have existed for generations long before modern industrial development plans emerged. These communities rely on fishing, small-scale agriculture, coastal resource utilization, and traditional maritime activities as their primary sources of income. In addition to their economic functions, the villages also possess deep cultural and historical significance for the local population.

The Indonesian government later designated Rempang Island as part of the Rempang Eco City project under the National Strategic Project framework. The project proposed the development of a large-scale industrial area integrated with commercial centers, residential zones, tourism infrastructure, and glass manufacturing industries supported by foreign investment.

The government considered the project an important opportunity to accelerate regional economic growth and industrial modernization. Authorities argued that the project would create employment opportunities, improve infrastructure, increase state revenue, and strengthen Indonesia's competitiveness in international industrial markets.

However, the project immediately generated serious opposition from local communities. Residents feared that the development would force them to leave ancestral lands and destroy traditional villages that had existed for generations. Many community members believed that relocation policies threatened not only their homes but also their cultural identity, social networks, and traditional livelihoods.

Environmental concerns also became a major source of resistance. The local community and environmental organizations argued that industrial development in Rempang Island could severely damage coastal ecosystems, mangrove forests, fisheries resources, and marine biodiversity. Since many residents depend directly on marine resources, environmental degradation would also threaten economic sustainability and food security for local communities.

The conflict escalated significantly in 2023 during government land measurement and land clearing activities. Security forces were deployed to secure the project area, resulting in clashes between authorities and local residents. Reports regarding the use of tear gas, forced security operations, and social tension attracted widespread criticism from civil society organizations, environmental groups, and human rights institutions.



The Rempang conflict subsequently became a national issue discussed widely in media, academic circles, and public policy debates. The case highlighted broader structural issues related to development governance in Indonesia, particularly regarding indigenous rights, environmental protection, public participation, and state approaches toward conflict management.

The case study of Rempang Island therefore illustrates the complex relationship between industrial development, environmental sustainability, public policy implementation, and social justice in contemporary Indonesia. The conflict demonstrates that economic development projects implemented without sufficient community participation and environmental consideration are highly vulnerable to social resistance and governance failure.

### 3. Policy Conflict and Controversy

The conflict surrounding the Rempang Eco City project emerged primarily because of weak communication, limited public participation, and differences in perspectives between government institutions, investors, local communities, and environmental organizations. The policy implementation process demonstrated how development-oriented policies can generate social tension when communities feel excluded from decision-making processes that directly affect their lives and living spaces.

In the case of Rempang Island, the controversy did not only concern the issue of industrial development itself but also broader questions regarding indigenous rights, environmental sustainability, public participation, and social justice. The policy conflict reflected the clash between two competing development paradigms: the first emphasized economic growth and industrial modernization, while the second prioritized environmental protection and community rights.

The emergence of these competing perspectives created two major groups within the public debate surrounding the Rempang Eco City project.

The first group consisted of pro-development actors, including government officials, investment supporters, business groups, and several economic policy advocates. This group argued that the Rempang Eco City project represented a strategic opportunity to strengthen Indonesia's economic competitiveness and accelerate regional development in Batam and the Riau Islands Province.

Supporters of the project believed that the industrialization of Rempang Island would significantly increase foreign direct investment in Indonesia, particularly in strategic industrial sectors such as glass manufacturing and industrial downstreaming. They argued that large-scale investment projects are necessary to strengthen Indonesia's position within global industrial and trade networks.

In addition, proponents of the project emphasized that the development would create employment opportunities for local communities and surrounding regions. The establishment of industrial zones, commercial centers, tourism facilities, and supporting infrastructure was expected to absorb labor, stimulate local economic activity, and improve public welfare.

Government institutions also argued that the project would accelerate regional infrastructure development. Roads, transportation facilities, industrial utilities, housing complexes, and public facilities were projected to improve significantly as part of the integrated development plan. From the government's perspective, industrial modernization was viewed as an important strategy for transforming Batam and its surrounding islands into globally competitive economic zones.

Another argument frequently presented by pro-development groups concerned industrial downstreaming policies promoted by the Indonesian government. Industrial downstreaming refers to efforts to process raw materials domestically to increase economic value and reduce dependence on raw commodity exports. Supporters argued that the glass industry project in Rempang Island would strengthen Indonesia's manufacturing capacity and contribute to long-term national economic transformation.

However, despite these economic arguments, the project also generated strong resistance from anti-development groups consisting of indigenous communities, environmental organizations, civil society institutions, academics, and human rights activists. These groups viewed the Rempang Eco City project as a threat to environmental sustainability, indigenous rights, and social justice.



One of the primary concerns raised by anti-development groups was the threat posed to indigenous Malay villages in Rempang Island. Local communities feared losing ancestral lands and traditional settlements that had existed for generations. For indigenous communities, land does not only possess economic value but also represents cultural identity, social history, spiritual attachment, and collective memory.

Community members believed that forced relocation policies would disrupt social structures and destroy traditional coastal lifestyles that depend heavily on fisheries resources and marine ecosystems. The relocation issue therefore became one of the central triggers of social resistance against the project.

Environmental organizations also criticized the project because of its potential to destroy coastal ecosystems in Rempang Island. Environmental groups argued that large-scale industrialization would threaten mangrove forests, fisheries resources, coral reefs, and biodiversity in the surrounding coastal areas.

Mangrove forests in particular became one of the major environmental concerns because they function as natural coastal protection systems against abrasion, flooding, and sea-level rise. In addition, mangroves provide habitats for fish, shrimp, crabs, and various marine species that support the local fisheries economy.

Environmental degradation caused by industrial expansion was also feared to increase disaster risks in coastal areas. Pollution, land conversion, ecosystem destruction, and climate vulnerability were considered potential long-term consequences of industrial development in ecologically sensitive regions such as Rempang Island.

Another major issue that intensified the controversy was the emergence of agrarian conflict. Local communities argued that the government failed to recognize adequately the historical and customary rights of indigenous residents over land ownership and settlement areas. The project therefore became associated with broader debates regarding land rights, indigenous recognition, and environmental justice in Indonesia.

Criticism also emerged because many community members believed that local participation within the policy process was highly limited. Residents argued that they were not meaningfully involved in discussions related to relocation plans, environmental risks, and policy formulation. This condition created distrust toward government institutions and strengthened public resistance against the project.

The controversy intensified further because Environmental Impact Assessment (AMDAL) discussions were conducted after relocation and land clearing processes had already begun. Ideally, AMDAL processes should be completed before project implementation to ensure that environmental impacts are properly assessed and public participation is accommodated.

The delayed AMDAL process created the perception that environmental governance procedures were treated merely as administrative formalities rather than substantive environmental protection mechanisms. Environmental organizations criticized this condition because it contradicted fundamental principles of environmental governance and sustainable development.

From a public policy perspective, the Rempang controversy demonstrates the importance of participatory governance in development planning. Policies that directly affect local communities and ecological systems require transparent communication, inclusive participation, and environmental accountability.

The conflict also illustrates how development policies that prioritize economic growth without balancing social and environmental considerations can produce long-term governance crises. In the case of Rempang Island, weak communication, procedural problems, environmental concerns, and social injustice collectively transformed the project into one of Indonesia's most controversial development conflicts in recent years.

Therefore, the Rempang Eco City conflict provides an important lesson for policymakers regarding the necessity of integrating environmental sustainability, indigenous rights protection,



disaster mitigation, and community participation into strategic development policies. Without these elements, development projects risk generating social instability, ecological degradation, and declining public trust toward government institutions.

#### 4. Government Regulation Regarding the Cancellation of Rempang Development

The Rempang Eco City project involved several important government regulations that shaped the legal and institutional framework of the development policy. These regulations reflected the government's efforts to accelerate industrial investment while simultaneously managing the social impacts emerging from the project implementation process.

One of the primary legal foundations of the project was Coordinating Minister Regulation Number 7 of 2023, which officially designated Rempang Eco City as part of Indonesia's National Strategic Projects. Through this regulation, the government prioritized industrial development in Rempang Island as part of the national economic transformation agenda. The regulation provided administrative and institutional support for investment acceleration, industrial zoning, and infrastructure development.

Another important regulation was Presidential Regulation Number 78 of 2023 concerning the management of social impacts related to land provision for national development projects. This regulation was intended to regulate relocation mechanisms, compensation policies, and social impact management associated with strategic development projects. However, many observers criticized the regulation because it was perceived as focusing primarily on administrative relocation procedures rather than comprehensive indigenous rights protection.

The legal controversy intensified when Presidential Regulation Number 12 of 2025 concerning the 2025–2029 National Medium-Term Development Plan no longer included Rempang Eco City within the National Strategic Project list. This decision became a major political turning point because it indicated a significant shift in the government's policy direction regarding the controversial development project.

Nevertheless, despite the exclusion of Rempang Eco City from the National Strategic Project framework, legal ambiguity continues to exist because several earlier regulations related to the project remain formally active. This condition creates uncertainty regarding the future legal status of industrial development activities in Rempang Island.

From a governance perspective, the overlapping regulatory framework demonstrates weaknesses in policy consistency and legal certainty within Indonesia's strategic development planning system. Inconsistent regulations may generate confusion among stakeholders, increase social distrust, and complicate environmental governance processes.

The Rempang case therefore illustrates the importance of policy synchronization and legal clarity in development governance. Government regulations concerning strategic development projects should not only prioritize investment acceleration but must also guarantee environmental sustainability, indigenous rights protection, procedural justice, and public participation.

To resolve these governance problems, the government needs to implement several important policy measures. These include revoking problematic regulations associated with the project, strengthening legal recognition of indigenous land rights, improving environmental governance mechanisms, resolving agrarian conflicts fairly, and restoring the social rights of affected communities.

Overall, the Rempang regulatory controversy demonstrates that development governance requires not only economic planning but also institutional accountability, environmental justice, and legal consistency to ensure sustainable and socially acceptable policy outcomes.

#### 5. Disaster Mitigation Analysis Based on 9 Environmental Perspectives

Industrial development in Rempang Island has the potential to create serious environmental disasters. The following table presents disaster predictions and mitigation strategies based on nine environmental perspectives.

**Table 1. Disaster Prediction and Mitigation Based on 9 Environmental Perspectives**

No	Perspective	Predicted Threat	Mitigation
1	Ecosystem & Biodiversity	Mangrove destruction, coral reef damage, marine habitat loss	Marine conservation zones and mangrove protection
2	Air Quality	Silica dust and industrial emissions	Industrial emission filters and air monitoring
3	Water Quality	Coastal water pollution and fisheries decline	Wastewater treatment systems
4	Land & Spatial Planning	Coastal abrasion and uncontrolled land conversion	Sustainable spatial planning
5	Climate Change	Increased carbon emissions and sea-level vulnerability	Renewable energy and mangrove rehabilitation
6	Public Health	Respiratory diseases and silica exposure	Safe industrial zoning and health services
7	Socio-Cultural Perspective	Loss of Malay cultural identity and social conflict	Protection of indigenous villages
8	Environmental Economics	Loss of fishermen income and local economic decline	Environmental economic valuation
9	Environmental Law & Governance	AMDAL violations and legal conflict	Environmental law enforcement

Source: Author's synthesis based on UNEP (2022), IPCC (2022), World Bank (2021), and Walhi Riau (2024).

The disaster mitigation analysis above demonstrates that industrial development in coastal and small island areas requires multidimensional environmental governance approaches. Environmental risks in Rempang Island are interconnected, meaning that ecosystem destruction may simultaneously trigger economic decline, public health problems, climate vulnerability, and socio-cultural disruption. Therefore, disaster mitigation strategies should not be implemented partially or sectorally. Instead, mitigation efforts must integrate environmental sustainability, social protection, indigenous rights recognition, and climate resilience within the broader development planning framework.

In addition, environmental mitigation policies should involve active participation from local communities because indigenous populations possess important ecological knowledge regarding coastal ecosystem management and environmental sustainability. Community participation is therefore essential for strengthening environmental governance legitimacy and improving disaster mitigation effectiveness in vulnerable coastal regions. The analysis above indicates that the environmental costs of industrialization are extremely high and could threaten ecological sustainability in Rempang Island.

## 6. Policy Evaluation

This study evaluates the Rempang Eco City policy using William Dunn's six public policy evaluation criteria.

**Table 2. Policy Evaluation Based on Dunn's Six Criteria**

Criteria	Evaluation Findings
Effectiveness	The policy failed to achieve social legitimacy and generated conflict
Efficiency	Large state resources were spent on conflict management
Adequacy	Community rights and environmental protection were insufficient
Equity	Investors benefited more than local communities
Responsiveness	Government response to community aspirations was weak
Appropriateness	Removal of Rempang Eco City from NSP was a corrective step

Source: Author's analysis adapted from Dunn's Policy Evaluation Framework (2003).



The effectiveness criterion measures the extent to which a public policy successfully achieves its intended goals and objectives. In the context of the Rempang Eco City project, the primary objectives of the policy were to accelerate industrial development, attract large-scale foreign investment, create employment opportunities, and relocate local communities to support the establishment of the integrated industrial area. However, the implementation of the policy demonstrated that many of these objectives were not successfully achieved.

One of the clearest indicators of policy failure was the inability of the government to achieve relocation targets among indigenous communities in Rempang Island. Strong social resistance continued throughout the implementation process, indicating that the policy lacked social legitimacy and public acceptance. Instead of creating public support, the relocation plan generated fear, distrust, and social tension among local residents.

The persistence of protests, demonstrations, and community rejection showed that the government failed to build effective communication and participatory dialogue with affected communities. In addition, unresolved land disputes and social conflicts prevented the project from progressing smoothly. As a result, the Rempang Eco City policy failed to achieve its broader objective of establishing a stable and sustainable industrial development area.

From a policy effectiveness perspective, this case illustrates that development policies cannot be considered successful solely based on economic targets or investment plans. Public acceptance, social stability, environmental sustainability, and procedural legitimacy are equally important indicators of policy success.

Efficiency refers to the relationship between the resources used in policy implementation and the outcomes achieved. A policy is considered efficient when it achieves its objectives with minimal social, political, financial, and administrative costs.

In the Rempang Eco City case, the government mobilized substantial resources to support the implementation of the project. Large numbers of security personnel were deployed during land measurement and relocation processes. The government also invested in relocation facilities, infrastructure preparation, and administrative arrangements intended to facilitate industrial development.

However, despite the significant allocation of resources, the conflict persisted for years without achieving a sustainable resolution. Social resistance remained strong, public protests continued, and tensions between communities and authorities intensified. Instead of reducing conflict, the extensive use of security approaches often increased public distrust and social polarization.

From an efficiency perspective, the Rempang Eco City policy generated high political, social, and economic costs while failing to deliver the expected outcomes. The prolonged conflict also created indirect costs, including reputational damage to government institutions, reduced public trust, environmental uncertainty, and social instability.

This condition demonstrates that development policies relying heavily on coercive or top-down approaches may become inefficient because conflict management consumes substantial state resources without resolving underlying social and environmental issues.

Adequacy refers to the extent to which a policy sufficiently addresses the problems and needs that it is intended to solve. In the Rempang Eco City project, the policy was expected to balance industrial development with community welfare and environmental sustainability. However, the findings indicate that the policy failed to adequately protect indigenous land rights and ecological systems.

One of the major weaknesses of the policy was the absence of sufficient legal protection for indigenous Malay communities living in Rempang Island. Many residents believed that their historical and customary rights over ancestral lands were not properly recognized within the development process. Relocation policies were introduced without adequate guarantees regarding long-term social, economic, and cultural protection for affected communities.



In addition, environmental sustainability considerations were viewed as insufficient throughout the policy implementation process. Environmental Impact Assessment (AMDAL) discussions were criticized because they occurred after relocation and land clearing activities had already begun. This created concerns that environmental procedures were treated merely as administrative requirements rather than substantive environmental protection mechanisms.

The policy also failed to adequately anticipate long-term environmental risks associated with large-scale industrialization in ecologically sensitive coastal areas. Potential impacts such as mangrove destruction, fisheries decline, pollution, coastal vulnerability, and biodiversity loss were not comprehensively addressed.

Therefore, from an adequacy perspective, the Rempang Eco City policy was unable to provide sufficient solutions for protecting environmental sustainability and indigenous community welfare.

Equity refers to fairness in the distribution of policy benefits and burdens among affected groups within society. In the Rempang Eco City case, the policy generated significant criticism because the distribution of benefits and impacts was perceived as highly unequal.

Economic benefits from the project were largely directed toward investors, industrial developers, and broader economic growth objectives promoted by the government. The policy was designed to strengthen industrial investment, increase manufacturing competitiveness, and support economic modernization.

However, while investors and economic institutions were expected to benefit from industrial expansion, local communities bore the majority of the environmental and social burdens associated with the project. Indigenous residents faced threats of relocation, loss of ancestral land, disruption of livelihoods, and social uncertainty.

Environmental risks such as ecosystem destruction, fisheries decline, coastal pollution, and mangrove degradation also disproportionately affected coastal communities who depended directly on natural resources for survival. As a result, the communities most vulnerable to environmental degradation were also those receiving the fewest direct economic benefits from the project.

This imbalance created perceptions of environmental injustice and social inequality. Many critics argued that the policy prioritized economic interests and corporate investment over the welfare and rights of local communities.

From an equity perspective, the Rempang Eco City conflict demonstrates the importance of ensuring that development policies distribute benefits and burdens fairly among all stakeholders, particularly vulnerable and marginalized communities.

Responsiveness measures the extent to which governments respond to the aspirations, concerns, and needs of affected communities. A responsive policy process requires open dialogue, participatory governance, and the willingness of authorities to consider public input in decision-making.

In the Rempang Eco City case, the government's approach was widely viewed as insufficiently responsive to local concerns and community aspirations. Many residents argued that their voices were not adequately heard during the planning and implementation stages of the project.

Community groups repeatedly expressed concerns regarding relocation, environmental destruction, cultural loss, and economic uncertainty. However, instead of prioritizing dialogue and negotiation, government responses were often perceived as administrative and security-oriented.

The deployment of security forces during land measurement activities further strengthened public perceptions that the government prioritized project implementation over community engagement. This condition contributed to declining public trust and intensified social resistance.

Environmental organizations and civil society institutions also criticized the lack of transparency and meaningful public participation in policy discussions. The delayed AMDAL process reinforced concerns that environmental and community considerations were not treated as policy priorities.

From a responsiveness perspective, the Rempang Eco City case illustrates how insufficient public engagement can weaken policy legitimacy and generate prolonged conflict.



Appropriateness refers to whether a policy direction is suitable, reasonable, and aligned with broader public interests and societal values. In the context of Rempang Eco City, the government's decision to remove the project from the National Strategic Project list through Presidential Regulation Number 12 of 2025 was widely considered a more appropriate policy direction.

The decision reflected growing recognition that the project had generated extensive social conflict, environmental controversy, and governance challenges. Removing the project from the National Strategic Project framework was viewed as an important corrective measure intended to reduce tensions and prevent further escalation of conflict.

The policy shift also demonstrated increasing awareness regarding the importance of environmental sustainability, indigenous rights protection, and participatory governance in strategic development planning. Many observers considered the decision necessary to restore public trust and create opportunities for more sustainable policy approaches in the future.

However, despite this positive step, policy ambiguity still remains because several earlier regulations related to the project continue to exist formally. This condition creates uncertainty regarding the long-term future of development planning in Rempang Island.

Nevertheless, from an appropriateness perspective, the removal of Rempang Eco City from the National Strategic Project list represented a more balanced and socially acceptable policy direction compared with continuing a development project that had generated prolonged environmental conflict and social instability.

#### 4. CONCLUSION

The strategic glass industry development policy in Rempang Island generated serious environmental, social, and legal problems. The Rempang Eco City policy failed to balance investment interests with environmental sustainability and indigenous community protection.

From a disaster mitigation perspective, industrialization in Rempang Island could potentially trigger ecosystem destruction, pollution, coastal vulnerability, cultural loss, and prolonged social conflict.

The government's decision to remove Rempang Eco City from the National Strategic Project list became an important corrective measure to reduce social conflict and prevent larger environmental disasters.

However, regulatory uncertainty and unresolved indigenous land rights remain important challenges that require immediate government action.

Future coastal development policies should prioritize sustainability, public participation, environmental justice, and community protection to prevent similar conflicts from occurring again.

#### 5. REFERENCES

- Anderson, J. E. (2014). *Public Policymaking*. Boston: Cengage Learning.
- Anggara, S. (2018). *Kebijakan Publik*. Bandung: CV Pustaka Setia.
- Bennett, N. J., Blythe, J., Tyler, S., & Ban, N. C. (2020). Communities and change in the anthropocene: Understanding social-ecological vulnerability and planning adaptations to multiple interacting exposures. *Regional Environmental Change*, 20(3), 1–15.
- BNPB. (2020). *Pedoman Mitigasi Bencana*. Jakarta: Badan Nasional Penanggulangan Bencana.
- Dahuri, R. (2001). *Pengelolaan Sumber Daya Wilayah Pesisir dan Lautan Secara Terpadu*. Jakarta: Pradnya Paramita.
- Dunn, W. N. (2003). *Pengantar Analisis Kebijakan Publik*. Yogyakarta: Gadjah Mada University Press.



- IPCC. (2022). *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Cambridge University Press.
- Komnas HAM. (2024). *Laporan Investigasi Konflik Pulau Rempang*. Jakarta.
- Konsorsium Pembaruan Agraria. (2024). *Catatan Konflik Agraria Kawasan PSN*. Jakarta.
- Presidential Regulation No. 12 of 2025 on the 2025–2029 National Medium-Term Development Plan.
- Presidential Regulation No. 78 of 2023 on the Management of Community Social Impacts in the Context of Land Provision for National Development.
- Temper, L., Walter, M., Rodriguez, I., Kothari, A., & Turhan, E. (2021). A perspective on radical transformations to sustainability: Resistances, movements and alternatives. *Sustainability Science*, 13(3), 747–764.
- UNEP. (2022). *Coastal Ecosystem Management and Sustainable Development Report*. United Nations Environment Programme.
- World Bank. (2021). *Environmental Governance and Social Inclusion in Coastal Development Projects*. Washington DC: World Bank.
- Walhi Riau. (2024). *Kajian Dampak Lingkungan Rempang Eco City*. Pekanbaru.
- Yin, R. K. (2018). *Case Study Research and Applications*. California: SAGE Publications.