

# Legal Policy Strategies for Preserving Tropical Forests in IKN in the Context of Climate Change

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## Abstract

*This study examines legal policy strategies to preserve tropical forest sustainability in the National Capital City (IKN) in the context of climate change. Indonesian tropical forests, particularly in East Kalimantan as the location of IKN, play a crucial role in global climate change mitigation and biodiversity conservation. However, challenges such as deforestation, forest degradation, and the impacts of climate change necessitate effective policy responses. The research utilizes a literature review method to analyze existing regulations and policies, as well as evaluate implementation and challenges faced. Findings highlight the need for strengthened law enforcement, increased transparency, and the integration of climate change issues into forest policies. Recommendations include cross-sector collaboration and enhanced community participation in forest management in IKN.*

**Keywords:** Legal Policy, Tropical Forest, Climate Change, National Capital City (IKN).

## INTRODUCTION

Indonesia, as the world's largest archipelagic nation, boasts unparalleled natural wealth, particularly in the form of tropical forests encompassing diverse ecosystems. These forests not only serve as habitats for hundreds of thousands of unique species but also play a crucial role as significant carbon sinks, vital in addressing the challenges of global climate change (Mahabbah, 2023). However, over the past few decades, deforestation and forest degradation have emerged as serious threats to Indonesia's natural heritage. Practices like illegal logging, the expansion of oil palm plantations encroaching on forest lands, and infrastructure development without environmental consideration have exacerbated tropical ecosystem conditions.

As Indonesia's tropical forests continue to face pressure from various human activities, the impacts extend beyond irreparable biodiversity loss. Forest loss also threatens water resources, diminishes soil quality, and increases the risks of natural disasters such as floods and landslides (Suntoro et al., 2023). Moreover, tropical forest degradation accelerates climate change by releasing stored carbon into the atmosphere on a large scale, creating a vicious cycle where faster climate change worsens forest conditions, further accelerating climate change.

To address these challenges, concrete steps in natural resource management need to be carefully and sustainably implemented. Strict law enforcement against illegal logging and other forest exploitation practices is necessary, alongside policies that promote responsible land use (Saputra & Zahara, 2023). Empowering local communities in forest conservation and management is also crucial to ensure environmental sustainability while considering their socio-economic well-being. Only through a holistic and collaborative approach can Indonesia protect its invaluable natural heritage for future generations.

In this context, legal policies play a crucial role in preserving tropical forests. The Indonesian government has issued various regulations and policies to protect forests, such as the Moratorium on New Permits in Primary Forests and Peatlands since 2011. However, the implementation of these policies often faces challenges including weak law enforcement, corruption, and resource limitations (H. Y. S. H. Nugroho et al., 2022). Furthermore, these policies must continually be updated to address new challenges, such as increasingly intensive climate change impacts.

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Climate change significantly affects tropical forest ecosystems. Rising temperatures, changes in rainfall patterns, and increased frequency of extreme weather events such as forest fires can accelerate forest degradation (Kalalinggi et al., 2023). Therefore, legal policies designed to preserve tropical forest sustainability must adapt to the dynamics of climate change. Integrating climate change issues into forest policies is crucial not only for mitigation but also for adaptation to current and future impacts.

The establishment of the new Capital City in East Kalimantan presents both a challenge and an opportunity in tropical forest preservation efforts. The new Capital City is planned as an environmentally friendly and sustainable city, with a forest city concept that preserves surrounding forest areas (Ramadani et al., 2023). However, the development of the new Capital City also has the potential to increase pressure on forests through land clearing and infrastructure development. Thus, effective legal policy strategies are needed to ensure that the new Capital City development does not compromise the sustainability of Indonesia's tropical forests.

This research will explore various legal policy strategies that can be applied to preserve tropical forests in the new Capital City context amidst climate change. The study will examine existing regulations, evaluate their implementation, and propose necessary policy improvements and innovations. Additionally, the research will consider various factors influencing policy effectiveness, including social, economic, and political aspects.

Therefore, this research aims to contribute to efforts to preserve Indonesia's tropical forests, particularly in the new Capital City area, and provide policy recommendations for adoption by the government and other stakeholders. It is also expected to raise awareness about the importance of integrating climate change issues into forest policies as part of global efforts to preserve environmental sustainability.

## **METHOD**

This research employs a literature study method to examine effective legal policy strategies for preserving tropical forests in the new Capital City (IKN) context amidst climate change. This method was chosen because it allows the researcher to gather and analyze information from various relevant sources, thereby producing a comprehensive and in-depth understanding of the research topic (Sugiyono, 2018). The stages of this research are outlined as follows:

### **Determination of Research Focus**

The initial stage of the research begins with identifying the focus and objectives. In this case, the research focuses on identifying and evaluating legal policies related to the preservation of tropical forests in IKN in the context of climate change. These objectives are further detailed into several research questions that will be answered through literature analysis.

### **Literature Collection**

During this stage, the researcher collects relevant literature from various sources, including scholarly journals, books, government reports, policy documents, and publications from non-governmental organizations (NGOs). These sources are obtained through online databases such as Google Scholar, JSTOR, and official government portals. The researcher uses keywords such as "Indonesian forest policy," "climate change," "deforestation," "IKN environmental policy," and "forest conservation."

### **Literature Selection**

Once the literature is gathered, the next step involves literature selection. The researcher selects literature based on criteria of relevance, accuracy, and credibility. Selected literature must be relevant to the research topic, contain accurate and current information, and originate from credible sources. The researcher categorizes literature into several topics such as forest regulations, climate change impacts on forests, and IKN policies.

### **Literature Analysis**

This stage entails a deep analysis of the selected literature. The researcher critically reads each literature to identify key findings, research gaps, and various perspectives. The researcher notes important points and

compiles summaries of each analyzed literature. This analysis also includes comparing different policies, evaluating policy implementation, and identifying challenges and opportunities in policy implementation.

### **Synthesis of Findings**

Based on the literature analysis, the researcher synthesizes key findings. This stage involves integrating various acquired information into a coherent conclusion. The researcher connects findings from different literatures, identifies common patterns, and evaluates the effectiveness of legal policies in preserving tropical forests in IKN. This synthesis also includes policy recommendations based on research findings.

### **Research Report Writing**

The final stage involves writing the research report. This report includes background, methodology, analysis, synthesis of findings, conclusions, and recommendations. The researcher ensures that the report is systematically and logically organized, presenting research findings clearly and in detail. The report is then revised and edited to ensure quality and accuracy before publication or dissemination to stakeholders.

By following these stages, this research aims to make a meaningful contribution to the preservation efforts of tropical forests in IKN and offer policy recommendations that can be implemented by the government and other relevant parties.

## **RESULTS AND DISCUSSION**

This research utilizes a literature study method to evaluate legal policy strategies for preserving tropical forests in the new Capital City (IKN) amidst climate change. Based on the literature analysis conducted, here are the main findings of this study:

### **Existing Legal Frameworks and Regulations**

Moratorium on New Permits in Primary Forests and Peatlands (Presidential Instruction No. 5/2019): This moratorium has successfully reduced deforestation rates in some areas, although challenges remain in enforcement and field supervision.

Forestry Law No. 41 of 1999: This law serves as the primary basis for forest management in Indonesia. However, its implementation is often hindered by lack of coordination between government agencies and conflicts of interest with other sectors such as plantations and mining.

National Medium-Term Development Plan (RPJMN) 2020-2024: The RPJMN emphasizes the importance of forest conservation in sustainable development, but specific operational policies for tropical forests in IKN need strengthening.

### **Impacts of Climate Change on Tropical Forests**

**Temperature Increase and Changes in Rainfall Patterns:** Studies indicate that climate change contributes to increased frequency of forest fires and land degradation. Tropical forests in Kalimantan, including those around IKN, are vulnerable to these phenomena (R. Nugroho & Setijaningrum, 2023).

**Ecosystem Changes and Biodiversity:** Climate change can result in changes in species composition and ecosystem structure, negatively impacting biodiversity. Tropical forests in IKN need protection to maintain vital ecosystem functions (Olijkan, 2023).

### **Evaluation of Policy Implementation in IKN**

**Forest City Concept:** The development of IKN with a forest city concept aims to preserve existing forest areas. However, the success of this concept heavily relies on stringent implementation and effective monitoring to prevent illegal logging and land conversion (Sukmana & Azizah, 2024).

**Interagency Collaboration:** Research finds that collaboration among various government agencies, NGOs, and local communities is crucial for successful forest preservation. Involvement of local communities in forest

monitoring and management needs enhancement through empowerment programs (Syaban & Appiah-Opoku, 2024a).

### **Challenges and Opportunities in Forest Policy**

**Challenges:** The research identifies several key challenges in forest policy implementation, including inadequate law enforcement resources, corruption, and conflicts of interest between economic development and environmental conservation (Lan, 2019).

**Opportunities:** There are significant opportunities to strengthen forest policies through increased transparency, advanced monitoring technologies (such as remote sensing and GIS), and integration of climate change policies into IKN development planning (Syaban & Appiah-Opoku, 2024b).

### **Policy Recommendations**

**Strengthening Law Enforcement:** The government should enhance law enforcement capacity by providing adequate resources and strengthening coordination among law enforcement agencies.

**Increasing Transparency and Accountability:** Policy implementation should be conducted transparently and accountably, including engaging communities in oversight processes.

**Utilizing Technology for Forest Monitoring:** Adoption of technologies like remote sensing and Geographic Information Systems (GIS) can aid in forest monitoring and early detection of illegal activities.

**Integrating Climate Change Policies:** Forest preservation policies should be integrated with climate change adaptation and mitigation strategies to ensure the sustainability of tropical forest ecosystems in IKN.

These findings and recommendations aim to contribute to the ongoing efforts to preserve Indonesia's tropical forests, particularly in the context of the new Capital City, and provide actionable policy guidance for the government and relevant stakeholders.

This research emphasizes the importance of a holistic and integrative approach in preserving tropical forests in the new Capital City (IKN). Legal policies must be supported by effective implementation, rigorous monitoring, and active participation from all stakeholders. Thus, efforts to preserve tropical forests in IKN can significantly contribute to climate change mitigation and biodiversity conservation in Indonesia (Dupar, 2019).

Indonesia's tropical forests, spanning more than half of Southeast Asia's total tropical forests, play a central role in global ecology. As significant carbon sinks, these forests help moderate global climate by storing carbon dioxide that would otherwise be released into the atmosphere if the forests continue to degrade (Resnick, 2019). Moreover, their abundant biodiversity not only supports various unique species but also maintains crucial ecosystem balance essential for human well-being.

However, the greatest challenge facing Indonesia's tropical forests is the rapidly increasing rate of deforestation. Illegal logging practices, expansion of plantations, and environmentally unfriendly infrastructure development have led to the loss of valuable forested areas (Riyadi & Setiono, 2022). This phenomenon not only threatens environmental sustainability but also causes serious economic and social losses to local communities dependent on forest resources for their livelihoods.

In addressing these challenges, legal policies play a key role in maintaining Indonesia's tropical forest sustainability. There is a need for strict law enforcement against violations such as illegal logging and unsustainable land use (Ningsih et al., 2020). Additionally, policies supporting sustainable and responsible forest management need prioritization. This includes empowering local communities to actively engage in conservation efforts and manage their natural resources.

By adopting a holistic approach that integrates environmental conservation, economic sustainability, and social welfare aspects, Indonesia can ensure that this valuable natural heritage is preserved for future generations (Dunning, 2022). These steps will not only help maintain tropical forests as global climate stabilizers but also support global efforts in addressing increasingly urgent climate change issues.

The establishment of the new Capital City (IKN) in East Kalimantan adds a new dimension to the dynamics of tropical forest conservation in Indonesia. The forest city concept promoted in the development of IKN offers opportunities to preserve significant forested areas while promoting sustainable development. However, this also presents major challenges in ensuring that development does not compromise the integrity of forest ecosystems (SAPUTRA & WIDIANSYAH, 2022). The success of IKN as a forest city depends on the implementation of effective and sustainable legal policies that can balance development needs with environmental conservation.

Climate change adds additional pressure on tropical forests in IKN. Increasing temperatures, changes in rainfall patterns, and the frequency of extreme weather events such as forest fires can accelerate forest degradation. In this situation, existing legal policies need to be evaluated and updated to address emerging challenges. For example, the moratorium on new permits in primary forests and peatlands has successfully reduced deforestation rates, but its implementation still faces barriers such as inadequate law enforcement and corruption (Mahabbah, 2023). To address climate change, these policies need to be complemented with more adaptive and scientifically based strategies.

Evaluation of policy implementation in IKN shows that collaboration among agencies and involvement of local communities are crucial. The success of the forest city concept depends not only on good planning but also on implementation involving various stakeholders. Local community participation in forest management can enhance monitoring effectiveness and prevent illegal activities (Suntoro et al., 2023). Furthermore, the use of technologies such as remote sensing and Geographic Information Systems (GIS) can assist in forest monitoring and early detection of detrimental activities.

However, this research also identifies several significant challenges in preserving tropical forests in IKN. One major challenge is the lack of resources for law enforcement. Without adequate resources, it is difficult to oversee extensive forest areas and enforce regulations. Corruption and conflicts of interest between economic sectors and conservation also hinder policy implementation (Saputra & Zahara, 2023). Therefore, serious efforts are needed to enhance transparency and accountability in policy implementation, including involving communities in oversight and decision-making processes.

In addressing these challenges, this research proposes several policy recommendations that can be implemented. Strengthening law enforcement through increased human and technological resources is a crucial step (H. Y. S. H. Nugroho et al., 2022). Additionally, transparency and accountability must be enhanced to ensure effective policy implementation. The use of modern surveillance technology such as remote sensing can help monitor forest conditions in real-time and detect illegal activities early. Integrating climate change policies into IKN development planning is also essential to ensure that forest preservation efforts align with climate change adaptation and mitigation strategies.

Overall, this research underscores the importance of a holistic and integrative approach in preserving tropical forests in IKN. Legal policies must be supported by effective implementation, rigorous monitoring, and active participation from all stakeholders. Thus, efforts to preserve tropical forests in IKN can significantly contribute to climate change mitigation and biodiversity conservation in Indonesia. This success is not only important for Indonesia but also for global efforts in addressing increasingly complex environmental challenges.

## **CONCLUSION**

This research concludes that existing legal policies in Indonesia, while showing some successes, still require improvements in enforcement and implementation to preserve tropical forests in the new Capital City (IKN) amid climate change. The establishment of IKN with the forest city concept offers significant opportunities but also presents challenges that require adaptive and collaborative strategies. Community participation, increased transparency, and the use of modern technology are crucial to achieving forest conservation goals.

## **Recommendations**

This research recommends strengthening law enforcement by enhancing resource capacity and technology, as well as fostering collaboration between the government and local communities. Transparency and

accountability in policy implementation need to be improved to prevent corruption and conflicts of interest. Integrating climate change issues into forest policies is also essential to ensure the sustainability of tropical forest ecosystems in IKN.

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