



Green policy analysis: Communicating national strategy in addressing global environmental threats

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Abstract

Indonesia faces significant pressure from deforestation, climate change, and globalization, which exacerbate environmental vulnerabilities and threaten societal sustainability. An inclusive approach based on green policy is needed to integrate environmental protection, sustainable resource management, and strategic communication in addressing the complex challenges of global environmental threats. This study aims to analyze national green policy strategies in response to global environmental threats, focusing on three main aspects: (1) analyzing the impact of globalization on the environment, including changes in communication patterns in addressing environmental challenges; (2) examining the role of government communication in developing and implementing strategies to combat global warming; and (3) identifying the failures of international environmental regulations in addressing global issues and their impact on national security. This case study employs a qualitative method, involving the Indonesian Defense University and the Cultural Heritage Preservation Agency, with a total of 10 participants selected through purposive sampling. Data collection for this research was conducted through observation and documentation. The findings reveal that globalization significantly affects the environment through the exploitation of natural resources by multinational corporations and changes in communication patterns, which require the government to leverage digital technology to counter disinformation and enhance environmental awareness. Government communication plays a strategic role in formulating policies and mobilizing society to address global warming. Meanwhile, the failure of international regulations exacerbates the impact of climate change, increasing national security threats through resource conflicts and climate-induced migration. The effectiveness of national green policies depends on the integration of communication strategies, cultural value protection, and cross-sectoral coordination to holistically address global environmental challenges. This study provides an original contribution by combining local cultural approaches and national security strategies in green policy, an aspect that has been largely overlooked in previous research.

Keywords: Climate Change; Global Warming; Globalization; Industrial Revolution

Introduction

Indonesia, as an archipelagic country with extraordinary biodiversity, faces significant challenges in managing its natural resources and environment (Aprilia et al., 2021; Liliani & Ryan, 2022; Nugroho et al., 2023). Indonesia's tropical forests, home to a vast array of unique flora and fauna, play a crucial role in maintaining global ecosystem balance while also serving as a livelihood source for more than 2,000 indigenous communities (MOEF RI, 2022). However, deforestation driven by plantation expansion, resource exploitation, and the impacts of globalization continue to deplete biodiversity and threaten the survival of indigenous communities (Adnan & Dadi, 2023). This threat is further exacerbated by climate change, which increases ecosystem vulnerability and worsens the socio-economic conditions of affected communities. In a global context, a UNDP report (1994) highlights that climate change and environmental degradation pose serious threats to human security, including food security, health, and livelihoods (Siloko, 2024). Therefore, a comprehensive national strategy is needed—one that integrates sustainable natural resource management and the recognition of Indigenous rights, supported by strategic communication to foster collective action among various stakeholders.

Deforestation in Indonesia has led to biodiversity loss, environmental degradation, and the disruption of indigenous communities' livelihoods. The expansion of palm oil plantations is the primary driver of forest cover loss, exacerbating global carbon emissions and accelerating climate change (Adnan & Dadi, 2023; Gaveau et al., 2021; Purwanto et al., 2020). Additionally, reliance on fossil fuels hampers the transition to renewable energy. Theoretically, this issue can be analyzed

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through the framework of political ecology, which highlights inequalities in access to and control over resources; globalization theory, which explains economic pressures on the environment; and environmental justice theory, which demands a fair distribution of benefits and burdens (Brand et al., 2020; Neimark et al., 2019). The sustainable development approach emphasizes the need to integrate environmental protection with economic development (Purvis et al., 2019). In this regard, green policies must address structural challenges such as unsustainable resource exploitation. The concept of human security, introduced by UNDP (1994), is also relevant in understanding the direct impact of environmental degradation on food security, health, and the survival of local communities (Gomez & Gasper, 2021).

In response to these challenges, the Indonesian government has adopted various green policies to balance economic growth with environmental sustainability. One of the key initiatives is the Enhanced Nationally Determined Contributions (ENDC) 2022, which aims to reduce emissions by 31.89% domestically and 43.2% with international support by 2030 (unfccc, 2022). This policy is implemented through the integration of low-carbon development into national planning and the application of Green Taxonomy to encourage innovation and green investment. However, reliance on coal and fossil-fuel-based power plants remains a major obstacle to achieving these targets (Greenpeace, 2022). Therefore, strategic communication plays a crucial role in raising public awareness, encouraging community participation, and attracting international investment. Environmental literacy campaigns, as demonstrated by Hussain et al. (2024), can enhance public engagement in environmental conservation. Moreover, transparency and open information sharing strengthen cross-sector collaboration in implementing green policies.

Table 1. Key initiative through NDC

Indonesia NDC	Greenhouse Gas (GHG) emission level in 2030 (conditional)	GHG emission reduction scenario in 2030 (Conditional) in %
1 st NDC	1.787	38
Update NDC	1.683	41
Enhance NDC	1.632	43.2

Source: dataaction

In the context of strategic communication, it is essential to understand how the government formulates and executes national strategies to tackle global environmental threats. Strategic communication not only conveys information about environmental policies but also builds narratives that mobilize society and the private sector to actively participate in sustainability initiatives. For instance, national campaigns aimed at reducing deforestation and transitioning to green energy must be designed to reach diverse social groups, including indigenous communities most affected by environmental policies. Strategic communication also plays a role in fostering partnerships between the government, private sector, and civil society in the implementation of green policies. One of the main challenges in environmental policy is the lack of coordination among stakeholders and resistance from industries that rely on natural resource exploitation. Therefore, effective communication must involve various media channels, including social media, public campaigns, and discussion forums that facilitate open dialogue among all relevant parties. A study by Hsu et al., (2021) suggests that the success of green policies depends on a combination of strong regulations and active public engagement in sustainable practices. Furthermore, communication in green policies also includes environmental diplomacy at the international level. Indonesia, as one of the world's largest tropical forest nations, holds a strategic position in global climate change negotiations. Participation in international forums such as the United Nations Climate Change Conference (COP) and cooperation with international organizations can strengthen the implementation of national environmental policies and attract greater financial and technological support from developed countries.

Several studies examining this research highlight various aspects of green policy and sustainable development. A 2021 study by [Hsu et al.](#), like this research, focuses on the impact of green policies and technological innovation on economic and environmental development, with a particular emphasis on the role of technology and regulation in supporting sustainable practices. However, unlike [Hsu et al. \(2021\)](#), which focuses on the relationship between green innovation and financial development in China, this study takes a broader approach, discussing national policy strategies in response to global environmental threats without being limited to specific economic sectors or geographic regions. This research also aligns with a 2020 study by [Scheidel et al.](#) in terms of interest in global environmental issues. Both studies emphasize the importance of policies and global actions to protect the environment and recognize the need for advocacy and protection for environmental defenders. However, this study has a broader scope, not limited to environmental conflicts and advocacy, as in the study by [Scheidel et al., \(2020\)](#).

Furthermore, a 2020 study by [Chernysh & Roubík](#) shares similarities with this research in acknowledging the importance of international cooperation in addressing environmental issues. However, [Chernysh & Roubík, \(2020\)](#) focus more on a bibliometric approach and international cooperation in environmental protection. In contrast, this study takes a broader approach by analyzing national green policy strategies on a larger scale. This research adopts a more comprehensive perspective, analyzing national green policy strategies in the context of complex global environmental threats. Thus, this study offers a new perspective on how green policies can be effectively implemented to address various global environmental challenges.

This study aims to analyze national green policy strategies in response to global environmental threats, focusing on three main aspects: (1) examining the impact of globalization on the environment, including changes in communication patterns in addressing environmental challenges; (2) assessing the role of government communication in building and implementing strategies to combat global warming; and (3) identifying failures in international environmental regulations in addressing global issues and their impact on national security. The urgency of this research lies in the need for inclusive and sustainable solutions to tackle global environmental challenges, highlighting the importance of strategic communication and green policies as key tools in national responses.

Practically, this study provides strategic guidance for governments and stakeholders in designing sustainable policies, including fair natural resource management, the transition to renewable energy, and the reduction of greenhouse gas emissions. Its theoretical implications include integrating conceptual frameworks such as political ecology, sustainable development, and environmental justice to analyze the complex relationships between humans, the environment, and policy. With a comprehensive approach, this research is expected to support Indonesia's efforts in addressing global environmental threats holistically and inclusively.

Method

The issue of environmental sustainability in Indonesia presents a complex challenge, as it is inextricably linked to national security concerns. Problems such as deforestation, pollution, and climate change require serious attention, while national security plays a crucial role in maintaining the stability of the country. The intersection of these two aspects creates significant challenges for the government in formulating policies that integrate environmental conservation efforts with national security strategies. This study aims to provide an in-depth understanding of this phenomenon and offer a comprehensive perspective on collaboration between the government and other sectors, such as the private sector and cultural institutions, in addressing environmental issues.

To achieve this, the research employs a qualitative approach with a quasi-qualitative design, allowing methodological adjustments during the research process and the development of insights based on direct observations and collected documentation. The research follows several stages, including identifying key issues, data collection, data analysis, and the formulation of findings and recommendations. The operationalization of the study involves mapping the relationship between environmental policies and national security through inter-agency cooperation.

The subjects of this research consist of two key institutions: the Indonesian Defense University (Unhan) and the Cultural Heritage Preservation Agency (BPWB). Unhan was selected

due to its focus on national security strategies, while BPWB has a mandate in cultural and environmental conservation. The combination of these two institutions reflects the need for synergy between security and environmental preservation. A total of ten participants—five representatives from each institution, including academics, practitioners, and policymakers—were selected using a purposive sampling technique over a period of three months. This technique ensures that the chosen participants possess relevant knowledge and direct involvement in the issues under study, thereby ensuring the relevance and quality of the data.

Data collection was conducted through field observations and documentation. Field observations took place at the two main institutions, as well as private sector entities collaborating on environmental initiatives. These observations aimed to identify interaction patterns, collaboration strategies, and challenges faced in managing environmental issues. The researcher directly observed meetings, policy discussions, and program implementations related to environmental conservation and national security. Additionally, secondary data were obtained through documentation, including government reports, policy documents, academic publications, and field data from relevant institutions. This documentation was analyzed to examine patterns of cooperation, emerging challenges, and the outcomes of inter-agency collaboration.

The collected data were analyzed using an inductive analysis method, allowing key findings to emerge organically from the data without being constrained by rigid initial assumptions. This approach was used to explore in depth the aspects of collaboration, potential synergies, and obstacles encountered in managing environmental and security issues. By integrating direct observation and document analysis, this study aims to provide a more comprehensive understanding of how to address the complexity of environmental and security challenges. The findings are expected to serve as a foundation for the government and other stakeholders in developing more effective, sustainable, and comprehensive policies to tackle environmental challenges in the future.

Results and Discussion

Observations at the Indonesia Defense University and the Cultural Heritage Conservation Agency have revealed strategic aspects in understanding green policies and the role of communication in national strategies to address global environmental threats. One key point is the impact of globalization on the environment, which not only involves the exploitation of natural resources by multinational corporations but also changes in communication patterns when addressing environmental challenges. Globalization has accelerated the dissemination of information through social media, digital platforms, and international networks, creating opportunities to raise global awareness of environmental issues. However, this flow of information also presents challenges, such as disinformation, which obscures the urgency of environmental issues, including climate change. Participants in the observation noted that this transformation in communication patterns requires the government and relevant institutions to strategically utilize communication technology to educate the public, mobilize collective action, and strengthen commitment to environmentally friendly behavior.

In examining the role of government communication, the Indonesia Defense University and the Cultural Heritage Conservation Agency highlighted the importance of structured communication in building environmental awareness, formulating policies, and implementing strategies to combat global warming. The Indonesian government, through its environmental policies, has sought to increase public involvement in tackling these challenges. However, fragmented communication and a lack of cross-sectoral coordination often serve as obstacles. Findings from the Indonesia Defense University indicate that the success of environmental policies largely depends on how effectively the government conveys the urgency of environmental issues clearly and consistently to the broader public. Moreover, communication strategies must emphasize narratives that evoke a sense of collective responsibility and highlight the direct impact of environmental issues on people's daily lives. For example, narratives linking global warming to threats to food security, natural disasters, and national resilience can serve as powerful drivers for raising awareness and encouraging public participation.

Furthermore, the observations also identified the failures of international environmental regulations in addressing global environmental problems and their impact on national security. One

of the key weaknesses highlighted is the lack of strict sanctions against countries or entities that violate international environmental agreements, such as the Kyoto Protocol or the Paris Agreement. Participants from the Indonesia Defense University noted that the inability of international regulations to ensure compliance with environmental commitments not only exacerbates climate change but also threatens national stability by increasing the risks of natural disasters, climate-induced migration, and resource-related conflicts. On the other hand, the Cultural Heritage Conservation Agency emphasized that local cultural values that respect the environment can serve as complementary solutions to fill the gaps left by the failures of international regulations. Traditional practices that promote environmental conservation, such as indigenous customs that protect forests or water sources, can be integrated into national environmental policies to strengthen community resilience in facing global environmental threats.

The observations also emphasized the importance of a cross-sectoral collaborative approach in tackling environmental challenges. Collaborative leadership involving the government, educational institutions, communities, and the private sector is key to implementing effective and efficient green policies. The Indonesia Defense University highlighted that environmental defense should be an integral part of national security strategy, while the Cultural Heritage Conservation Agency stressed the importance of using a cultural approach to build environmental awareness. By combining these perspectives, environmental policies can incorporate both security and cultural aspects that reinforce one another, creating a comprehensive framework for addressing global challenges. At the international level, regional collaboration is also a crucial factor in addressing transboundary issues, such as air pollution and overfishing, which require strong coordination among the countries involved.

Overall, these findings underscore that the effectiveness of green policies depends on the government's ability to leverage communication as a strategic tool—both in raising public awareness and in formulating and implementing sustainable environmental policies. Amid the challenges posed by the failure of international regulations, Indonesia's role becomes increasingly important in demonstrating global leadership by integrating local values, cultural approaches, and security strategies in environmental conservation efforts. Through targeted communication and cross-sectoral collaboration, Indonesia can strengthen its position as a pioneer in addressing global environmental threats and achieving sustainable development goals.

Discussion

The findings of this study on green policy highlight the crucial role of communication in national strategies to address global environmental threats. Observations from the Indonesian Defense University and the Cultural Heritage Conservation Agency reveal that globalization has a significant impact on the environment, particularly through the exploitation of natural resources by multinational corporations and the transformation of communication patterns related to environmental challenges (Gereffi et al., 2021; Hidalgo & Zografos, 2020). Globalization has accelerated the dissemination of information through social media, digital platforms, and international networks, creating opportunities to raise global awareness of environmental issues (Kaplan & Kinderman, 2020). However, on the other hand, the rapid flow of information also presents challenges in the form of misinformation that can obscure the urgency of environmental issues, including climate change (Silva et al., 2019). This transformation in communication patterns requires governments to strategically utilize communication technology to educate the public, mobilize collective action, and strengthen commitment to environmentally friendly behavior. Additionally, a communication approach based on risk and crisis communication theories can be employed to enhance the effectiveness of environmental policy messaging, ensure transparency, and reinforce the credibility of information (Delgado et al., 2023; Frémont, 2024).

The role of government communication is highly strategic in building environmental awareness, formulating policies, and implementing strategies to address global warming. The Indonesian government has sought to increase public engagement through various environmental policies, such as the National Action Plan for Greenhouse Gas Emission Reduction (RAN-GRK) and the moratorium on peatland clearing permits to reduce deforestation (MOEF RI, 2022). However, these policies are often hampered by fragmented communication and a lack of cross-

sectoral coordination (Mercille & Murphy, 2019). Observations at the Indonesian Defense University indicate that the success of environmental policies largely depends on how well the government communicates the urgency of environmental issues clearly and consistently to the public (Niesten & Jolink, 2020). Furthermore, communication strategies should be able to evoke a sense of collective responsibility by emphasizing the direct impact of environmental issues on daily life, such as threats to food security, natural disasters, and national resilience (Albert et al., 2023). The agenda-setting theory in political communication is also relevant in understanding how environmental issues are positioned in public and media discourse, given that the media plays a vital role in shaping public perceptions of environmental issues and encouraging collective action (Fadeji et al., 2025; Langer & Gruber, 2021).

In analyzing the failures of international environmental regulations, findings indicate that the lack of strict sanctions for violations of international agreements, such as the Kyoto Protocol and the Paris Agreement, exacerbates climate change and threatens national stability (Söderholm, 2020). Weak regulations provide room for multinational corporations to disregard environmental sustainability, particularly in developing countries with lax regulations (Kaplan & Kinderman, 2020). This leads to biodiversity loss, climate change, and pollution that directly affect local communities (Silva et al., 2019). Observations highlight that the inability of international regulations to ensure compliance with environmental commitments not only increases the risks of natural disasters and climate-induced migration but also exacerbates resource conflicts (Hidalgo & Zografos, 2020). In this context, environmental diplomacy plays a crucial role in building global consensus on green policies through international platforms such as the UNFCCC and the United Nations (UN) (Kuh, 2018). Moreover, local cultural traditions that respect the environment can serve as alternative solutions to fill the gaps left by international regulatory failures (Mercille & Murphy, 2019). Indigenous practices such as forest and water resource conservation can be integrated into national environmental policies to strengthen community resilience.

Globalization also presents new challenges concerning communication patterns in addressing environmental challenges. Multinational corporations driven by financial profits often overlook environmental sustainability, particularly in developing countries. Deregulation and market liberalization reinforced by international agreements such as the WTO and FTA further exacerbate resource exploitation without considering its impact on sustainability (Ergen et al., 2023; Gereffi et al., 2021). In this context, structured government communication becomes increasingly essential in conveying the negative impacts of globalization on the environment and fostering collective public responsibility. Political ecology theory highlights that global economic power dynamics often clash with local interests, necessitating the promotion of fair regulations, circular economy practices, and incentives for environmentally friendly practices (Hidalgo & Zografos, 2020).

A cross-sectoral collaborative approach is key to addressing environmental challenges. Collaborative leadership involving the government, educational institutions, communities, and the private sector can strengthen the effective implementation of green policies. The Indonesian Defense University emphasizes that environmental defense should be an integral part of national security strategies, while the Cultural Heritage Conservation Agency highlights the importance of using cultural approaches to build environmental awareness (Albert et al., 2023). By integrating these perspectives, environmental policies can encompass security and cultural aspects that complement each other, creating a comprehensive framework for tackling global challenges. The communication strategies used in national green policies should incorporate various approaches, ranging from media-based campaigns to direct community engagement. The government can leverage digital technology and social media to disseminate information broadly and interactively, as well as engage opinion leaders such as scientists, environmental activists, and community figures to enhance the effectiveness of green policy communication (Suryani, 2024).

This study focuses on analyzing national green policies in response to global environmental threats, emphasizing the importance of integrating cultural values, environmental sustainability, and national defense. The findings indicate that a holistic approach combining government roles and cross-sectoral coordination is crucial. Compared to previous research, such as studies on international collaboration in environmental protection (Chernysh & Roubík, 2020), there is a

shared emphasis on the need for extensive cooperation to address global environmental challenges. However, the study by Chernysh & Roubík (2020) focuses more on the impact of the COVID-19 pandemic on international cooperation mechanisms. Meanwhile, the study by Hsu et al. (2021) on green innovation and financial development in China highlights the importance of green technology development and environmental regulations in promoting economic development and sustainability. This study aligns with findings that strong regulations and policies are necessary to mitigate environmental impacts. Additionally, the research by Scheidel et al. (2020) on environmental conflicts and environmental defenders emphasizes the need for global awareness of environmental protection and human rights. Thus, this study reinforces previous findings by emphasizing the need for an integrated approach while contributing original insights by incorporating cultural and defense aspects into national green policy strategies.

The implications of this study suggest that national green policy strategies must consider the integration of effective communication, cross-sectoral coordination, and the utilization of local culture in building awareness and commitment to environmental protection. The government needs to develop strategic and evidence-based communication policies to counter misinformation and strengthen transparency and public participation in environmental issues. Furthermore, weaknesses in international regulations that hinder the effectiveness of national environmental policies require a more proactive diplomatic approach to enforce global compliance with environmental agreements. Therefore, a risk communication-based approach, community engagement, and the synergy between environmental policy and national security are crucial in addressing global challenges. As a recommendation, the government should adopt a collaborative and interactive green policy communication model by utilizing digital technology and engaging stakeholders from various sectors. This model includes (1) strengthening data-driven communication through digital platforms and social media to enhance public awareness and education, (2) cross-sectoral coordination between the government, academics, the private sector, and society to accelerate the implementation of green policies, and (3) integrating local cultural values into environmental conservation strategies to enhance public compliance with environmental policies. Additionally, the government must strengthen national regulations with stricter enforcement mechanisms and advocate for fairer environmental policies in international forums to prevent unsustainable resource exploitation.

Conclusion

This study finds that globalization has a significant impact on the environment through the exploitation of natural resources and the transformation of communication patterns in addressing environmental challenges. While globalization accelerates the dissemination of information and increases environmental awareness, misinformation remains a major challenge in fostering an accurate understanding of global environmental issues. The role of government communication is proven to be crucial in raising public awareness and implementing strategies to combat global warming. However, fragmented communication and a lack of cross-sectoral coordination often hinder the effectiveness of environmental policies. Furthermore, the failure of international environmental regulations—marked by weak enforcement mechanisms and the absence of sanctions for violators—has exacerbated the effects of climate change, increasing the risks of disasters, migration, and resource conflicts that threaten national stability. Therefore, integrating strategic communication, enhancing cross-sectoral coordination, and adopting an approach based on cultural values and national security are necessary to strengthen the effectiveness of green policies in addressing global environmental threats. This study has limitations in its empirical data scope, as observations were restricted to the Indonesia Defense University and the Cultural Heritage Conservation Agency. As a result, it does not fully capture perspectives from other actors, such as civil society, the private sector, and international organizations. Additionally, this research primarily focuses on national-level policies, whereas environmental challenges have transnational dimensions that require further analysis of Indonesia's role in international cooperation. Future research is recommended to conduct comparative studies with other countries to better understand effective communication strategies and environmental policies in the context of globalization. Furthermore, a quantitative analysis of the effectiveness of government communication in raising environmental awareness and public participation could provide deeper insights. Research should also further

explore the role of digital technology in green policy communication and the impact of environmental diplomacy on global compliance with international environmental regulations.

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