

Facing the Policy Challenges of Climate Change: Assessing China's Strategy and Actions in International Environmental Crisis Communication

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Abstract: Climate change represents an unparalleled global challenge that necessitates urgent, unified responses to mitigate its far-reaching impacts. As a leading contributor to global emissions and a key stakeholder in international climate negotiations, China's policy maneuvers, and diplomatic engagements are crucial for spearheading global efforts towards sustainable development. However, the image China presents in global climate change governance does not fully meet its expectations, which is largely due to China's strategic deviation in public communication. This study aims to dissect the complexities of China's strategic approach, evaluating its effectiveness, contributions, and encountered challenges within the international climate change dialogue. By focusing on China's capacity to facilitate collaborative global actions and its endeavors in promoting sustainable policies, this research emphasizes the indispensability of adept communication and robust international cooperation in combating the environmental crises of this era.

Keywords: Climate Change, China, Communication Crisis

1. Introduction

Climate change is a pervasive and escalating global phenomenon that not only poses significant impacts on environmental degradation, but also affects socio-economic structures, public health, and global security. According to the Intergovernmental Panel on Climate Change (IPCC), the last few decades have witnessed unprecedented warming, with the period from 2010 to 2020 being the warmest decade on record [1]. These changes have led to severe consequences, including increased frequency and intensity of droughts, hurricanes, wildfires, and heatwaves, threatening food security, biodiversity, and human livelihoods.

As a leading contributor to global emissions and a key stakeholder in international climate negotiations, China's policy maneuvers, and diplomatic engagements are crucial for spearheading global efforts towards sustainable development. Several scholars have emphasized the significance of China's participation in global climate governance. For instance, Gallagher and Qi [2] argue that China's rapid industrial growth and its consequences on global emissions have positioned it as a critical player in climate change negotiations. Furthermore, Teng and Wang [3] highlight China's

evolving environmental policy landscape, indicating a shift towards greater international engagement and sustainable development. Despite these advancements, critiques from Zhang [4] suggest that there is a divergence of opinions in the public discourse regarding China's carbon-neutral objectives, which are incongruent with its ambitious plans.

In this case, there is a necessity to research the reason for the discrepancies between China's projected image in global climate governance and the expectations of the international community. This study aims to dissect the complexities of China's strategic approach to environmental crisis communication, evaluating its effectiveness and the challenges it faces within the international climate change dialogue.

2. Theoretical Framework

Firstly, it is necessary to review the complex field of international policy responses to climate change. In the context of environmental crisis communication, analyzing international policies enables us to comprehensively understand how global agreements and theoretical insights drive public discourse and policy-making in environmental crises. Recent literature highlights the complexity of international climate policy responses, centering on pivotal frameworks such as the UNFCCC, the Kyoto Protocol, and the Paris Agreement [5]. These agreements, integral to global environmental efforts, aim for unified action against climate change through emission reduction and sustainability. Theoretical models, including the tragedy of the commons, collective action, and game theory, underscore the challenges of international climate change mitigation, emphasizing the difficulty of aligning diverse national interests and capacities [6]. These models are instrumental in developing communication strategies that highlight the interconnectedness of global communities and the shared responsibility for climate action. By elucidating these concepts, communication efforts can emphasize the urgency of collective action and the potential consequences of inaction, thereby motivating public support for climate policies and initiatives.

In crisis communication, the decline in traditional media's ability to satisfy public curiosity and the rise of new media have diversified media landscapes, prompting the public to explore various channels for truth. Internet technologies and platforms like Weibo and Twitter disrupt traditional media's monopoly, amplifying their discourse power and engaging more individuals. Social media accounts, or "social robots," play a pivotal role in disseminating information on public health and other critical issues, raising questions about their impact on strategies for addressing climate change, environmental crises, and sustainability. This shift represents a new paradigm in environmental crisis communication, highlighting the importance of understanding how digital discourse can influence public opinion and policy on environmental issues.

In the case of China, research on environmental crisis reporting is twofold: analysis of media coverage on specific events and comparative studies across media outlets. This research underscores the use of framework theory, the integration of international perspectives to broaden domestic research, and a focus on issues pertinent to China's environmental context. The findings advocate for a blend of international and domestic approaches in media strategy, suggesting the development of adaptive platforms for information sharing, public discourse, and policy engagement. This strategy aims to enhance China's role in global environmental governance and align its policies with international sustainability trends.

3. China's Environmental Policy Landscape

China's journey towards environmental sustainability and climate change mitigation has been marked by significant policy evolution over the past few decades. Initially, economic development was the paramount concern, with environmental considerations taking a back seat. This approach led to rapid

industrialization and urbanization at the expense of the environment. The turning point came in the late 20th and early 21st centuries when the Chinese government began to recognize the unsustainable nature of this growth model. This acknowledgment was crystalized in the 11th Five-Year Plan (2006-2010), which for the first time, included binding targets for energy efficiency and pollution reduction. The subsequent years witnessed an increasing emphasis on green growth, culminating in the concept of "ecological civilization" being embedded into China's national development strategy. The 13th Five-Year Plan (2016-2020) further underscored this commitment by integrating climate change actions into economic, social, industrial, and urban development plans. These policy shifts reflect China's growing recognition of its role in global environmental governance and its responsibility as a major emitter of greenhouse gases.

China has implemented several key strategies and initiatives aimed at mitigating climate change and promoting environmental sustainability. One of the cornerstone efforts is the National Climate Change Program, launched in 2007, which outlined comprehensive strategies for reducing greenhouse gas emissions through technological innovation, energy efficiency improvement, and the development of renewable energy sources. Moreover, China has committed to peaking its CO₂ emissions before 2030 and striving to achieve carbon neutrality before 2060, a bold pledge that underscores its commitment to the global fight against climate change. In the realm of renewable energy, China is a global leader, with substantial investments in solar, wind, hydro, and nuclear power. These efforts are supported by ambitious targets set in the Renewable Energy Law, which aims to increase the share of non-fossil fuels in primary energy consumption to around 20% by 2030. Additionally, China has launched national carbon trading schemes and piloted green finance initiatives to support sustainable development projects. In terms of international cooperation, China and the EU built an energy cooperation platform in 2019 to jointly commit to the development and utilization of renewable energy to face the growing challenge of climate change. As a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) and its subsequent agreements, including the Kyoto Protocol and the Paris Agreement, China has submitted Nationally Determined Contributions (NDCs), outlining its commitments to curb emissions, enhance energy efficiency, and increase the share of non-fossil fuels in its energy mix. Furthermore, China's Belt and Road Initiative (BRI) has been linked with green development principles, indicating an attempt to integrate environmental sustainability into its international development and cooperation projects.

4. Challenges in International Environmental Crisis Communication

Renn [7] distinguishes between objective and subjective interpretations of risk society, as originally proposed by Beck [8]. The objective viewpoint sees risk as a real, unavoidable consequence of globalization, necessitating systematic responses for risk management. Conversely, the subjective perspective attributes the perception of an increasing risk to a heightened societal focus, advocating for cultural approaches to risk management, such as environmental activism and sustainable development practices. In the digital era, risk perception is often shaped by media representations, leading to a preference for subjective analysis in environmental risk studies.

The global dissemination of Chinese policies encounters three primary conflicts that pose significant challenges to global crisis communication: the clash between hegemonic and peace discourses, the divergence between different cultural and civilizational discourses, and the tension between official and popular discourses. These challenges impede the global dialogue on environmental crises, with hegemonic tactics like political isolation and economic sanctions potentially stifling communication efforts. Moreover, the interplay of Western influence on Eastern civilizations and the coexistence of multiple discursive traditions complicates the alignment of Chinese policies with global expectations. Additionally, the media's role in politicizing discourse

necessitates the development of transparent and open channels for discourse and policy formulation to enhance China's contribution to global crisis communication.

The following article will conduct a background analysis from three factors: politics, economy, and society, exploring how China will face the above three important challenges and the adjustment direction of China's communication strategy.

4.1. Political factors

As Cai [9] points out, Ecological and environmental issues are not purely "natural problems", nor is it inevitable that Western scholars claim that "natural resources are scarce". In fact, ecological issues are closely related to a country's political orientation and institutional measures. In fact, ecological issues are closely related to a country's political system. Therefore, in the face of global ecological governance issues, it is not only necessary to formulate policies from the perspective of objective environmental issues, but also to consider environmental governance issues from the perspective of political systems. The "depoliticization" trap created by Western countries when discussing environmental damage without considering economic and political interests needs to be addressed reasonably in the process of building a global community with a shared ecological future.

4.2. Economic factors

Compared to other global issues, environmental issues should be more wary of the infiltration of capital logic. The global governance led by capital logic is essentially a global governance model that focuses on pursuing domestic interests. Both developed and developing countries should stand on the same front and follow fair and feasible international agreements. China needs to continuously compete for international discourse power in the field of ecological governance, enhance the international status and influence of developing countries, and strive to achieve common human development.

4.3. Social factors

The global environmental crisis has public attributes and cross regional characteristics. The process of economic globalization has further intensified the spread and diffusion of global environmental problems, which poses serious challenges to the implementation of China and international policies from both time and space perspectives.

5. Assessing China's Strategy and Actions

The international environmental crisis has brought severe challenges to China. In the face of the crisis, China has two important strategic measures: clarifying the situation, challenging work methods, and participating in the formulation of international environmental governance rules.

5.1. Two strategic measures

Contemporary environmental governance research emphasizes models such as multi-centric governance, which seeks to diversify leadership beyond government to include market and societal forces, ensuring all stakeholders are actively involved. This approach, alongside interactive governance, fosters widespread engagement in environmental decisions. The shift from end-of-pipe solutions to source prevention highlights a proactive stance on pollution control, focusing on the root causes. Sustainable governance integrates environmental objectives with economic and social planning, respecting the natural limits of resources.

China's engagement in global environmental governance evolves through familiarization with, adherence to, and proficient application of rules to safeguard interests and eventually, shaping rules to align with its goals. Currently transitioning from understanding existing frameworks to applying and benefiting from them, China emphasizes environmental protection as a pillar for peaceful development and international cooperation. Initiatives like the Belt and Road highlight its commitment to building a global community with shared futures, underpinning China's strategy to enhance its influence and protect national interests [10].

Based on the above two strategic directions, China has taken practical actions in four aspects: strategic focus, capital investment, talent development, and green brand building.

5.2. Four practical actions

Fully respect the development needs of various countries, actively promote climate cooperation and practical actions. In terms of goal setting, climate cooperation is deeply integrated with China's low-carbon transformation strategy. In terms of organizational structure arrangement, better leverage China's leading role in international development cooperation and create an integrated cooperation plan.

Expand China's investment in the field of climate change and increase funding in the climate field. Strengthen cooperation with financial institutions such as the Asian Infrastructure Investment Bank (AIIB) and the BRICS Development Bank (NDB), support financial regulatory agencies in creating a climate friendly green investment ecosystem, and develop green investor responsibility guidelines. Utilize financial technology to support the development of green finance. Establish corresponding projects while clarifying their specific needs to improve the effectiveness of fund utilization [11].

Promote extensive exchange and cooperation of technical talents. Strengthen cooperation with other countries to jointly cultivate talents in the field of climate, expand the scale of the work plan for outstanding scientists from countries, regions, and the world to come to China, and create a world important talent center and innovation highland in the field of climate.

Strengthen the construction of green brands, closely integrate national image with green and low-carbon investment, and develop sustainable environmental communication strategies. Focus on promoting the signing of cooperation projects on renewable energy and green infrastructure. By sharing China's clean energy development practices through various media channels, climate change initiatives are highly correlated with green and low-carbon development in public opinion, forming a green brand effect.

One of the specific cases of China's response to international environmental crises could be the analysis based on 18 typical major sudden water pollution incidents from 1994 to 2018. Nevertheless, diverse stakeholders, including affected communities, social elites, and enterprises, have increasingly participated in environmental discourse, challenging the government's dominant narrative. The rise of new media technologies has further shifted the balance, enabling broader engagement in environmental debates and diluting traditional media's influence. This evolution not only amplifies media's role in shaping public perception and agenda but also suggests a shift towards a more inclusive and cooperative approach in environmental governance. With new media's support, there's a push for a balanced discourse that moves the government's role from being solely responsible for pollution solutions to becoming a guardian of a multifaceted cooperative environment [12].

6. Comparative Analysis

The global effort to combat climate change requires a cohesive strategy involving all major emitters. In this context, comparing China's strategies with those of other significant players, such as the

European Union (EU) and the United States (USA), can provide valuable insights into different approaches to climate change mitigation and adaptation.

6.1. European Union (EU)

The EU has been a pioneer in climate governance, setting ambitious targets for reducing greenhouse gas emissions, increasing the use of renewable energy, and improving energy efficiency. The European Green Deal is a hallmark strategy aiming to make Europe the first climate-neutral continent by 2050. This comprehensive plan encompasses a wide range of policy areas, from clean energy to sustainable agriculture, circular economy, biodiversity conservation, and green transportation. The EU's approach is characterized by its binding legislation, robust regulatory frameworks, and significant financial investments in green technologies [13].

The EU's approach to climate crisis communication is characterized by transparency, inclusivity, and consistency, which have significantly contributed to its credibility and leadership role in international climate discussions. The EU actively engages with a broad range of stakeholders, including member states, non-governmental organizations, and the private sector, ensuring a diverse range of voices are heard and considered. Public awareness campaigns and accessible information dissemination are central to its strategy, enhancing the public's understanding of climate change issues and the need for action. Furthermore, the EU's commitment to multilateralism and its role in fostering dialogue and cooperation through international forums exemplify its proactive communication stance [13].

6.2. United States (USA)

The climate policy of the USA has experienced fluctuations, largely depending on the political leadership. However, recent developments signify a renewed commitment to addressing climate change, with the rejoining of the Paris Agreement and the announcement of the goal to reduce carbon emissions by 50-52% below 2005 levels by 2030 [14]. The USA focuses on innovation in clean energy technologies, regulatory measures for emission reduction, and the engagement of the private sector in climate action initiatives. The Bipartisan Infrastructure Law and the Inflation Reduction Act are key components of this strategy, aiming to modernize infrastructure, accelerate the clean energy transition, and create jobs in sustainable industries.

The communication approach of the USA towards the climate crisis has varied, reflecting shifts in political leadership. Nonetheless, when committed to climate action, the USA demonstrates a strong emphasis on innovation and economic opportunity related to clean energy transitions, effectively leveraging narratives that resonate with a broad audience, including sceptics and supporters alike. The strategic framing of climate action as a driver of economic growth, job creation, and national security has been pivotal in garnering support for climate policies. Additionally, the USA's engagement in diplomatic channels and international alliances highlights its capacity to utilize communication as a tool for enhancing global climate governance [14].

From these cases, China can refine its strategies and policies to enhance its contribution to global climate governance by implementing the following points:

- **Enhance Transparency and Consistency in Communication:** Adopting a more transparent and consistent communication approach can help China improve its image in global climate governance. Regularly publishing progress reports, policy updates, and future plans in an accessible format would build trust and credibility both domestically and internationally.
- **Inclusive Stakeholder Engagement:** By involving a wider array of stakeholders in the climate dialogue, including civil society, academia, and the private sector, China could

enrich its communication strategy. This inclusive approach can foster a more cohesive understanding and support for its climate policies.

- Strategic Narrative Framing: Learning from the USA, China could benefit from framing its climate actions within broader narratives that appeal to diverse international audiences. Highlighting the economic benefits of green technology, renewable energy investments, and climate resilience can align China's climate agenda with global economic development goals.

7. Conclusion and Recommendations

The study outlines the theoretical underpinnings of environmental crisis communication, emphasizing the shift towards new media platforms and the emergence of diverse voices in shaping public discourse on climate change. By examining China's environmental policy landscape, the research elucidates the country's transition towards green growth, highlighting key initiatives and strategies aimed at mitigating climate change and promoting sustainability. Despite these efforts, challenges in international environmental crisis communication remain, attributed to differing perceptions of risk and the need for more effective alignment of China's policies with global standards.

This investigation into China's strategic approach in the context of international environmental crisis communication reveals a complex scenario, where China's efforts in addressing climate change are both commendable and subject to scrutiny. The study underscores the critical role of adept communication and robust international cooperation in combating the environmental crises. To enhance China's contribution to global climate governance and improve its crisis communication strategies, the following recommendations are proposed:

- Building value standards for environmental governance in China. When spreading environmental governance abroad, China can learn from the values of good governance in the West, and on this basis, transcend and reconstruct, so as to spread the progressiveness and superiority of contemporary China's environmental governance to the outside world.
- Avoid formalism and empty talk in environmental governance, promote transparency and openness in governance tasks and goals. The media and the public actively participate in discussions on environmental governance.
- Call for the construction of an ecological governance community. Countries are becoming increasingly integrated in ecological governance issues, and the construction of a community in the field of ecological governance is a requirement for mutual benefit and shared responsibility. The interests related to ecological governance are also constantly calling for the construction of an ecological governance community.

By addressing these recommendations, China can refine its approach to international environmental crisis communication, align more closely with global expectations, and play a pivotal role in fostering a sustainable future. The success of global climate governance hinges on the collective action of all stakeholders, with China's strategic contributions being indispensable to achieving environmental sustainability and combating climate change on a global scale.

Both of the two authors have made equally significant contributions to the work and share equal responsibility and accountability for it.

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