

The Political Economy of Disaster Risk Reduction and Climate Policy: A Review

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Abstract

This paper checks the literature on the political economy of disaster risk reduction (DRR) and climate policy. It starts by highlighting the need for a better understanding of the political economy of DRR and climate policy in order to design and implement effective policies. It then reviews the existing literature on the political economy of DRR and climate policy, identifying the factors that have been found to influence the design, implementation, and outcomes of DRR and climate policy. Finally, it concludes the implications of this review for future research and policy. The paper argues that further research is needed to improve our understanding of the political economy of DRR and climate policy, and to inform the development of effective policies.

Keywords

Adaptation, Mitigation, Climate Policy, Climate Change, Disaster Risk Reduction, Governance, Political Economy, Sustainability.

INTRODUCTION

Climate As climate change continues to affect global economies, countries around the world are developing policies to reduce disaster risk and to mitigate the impacts of climate change. This paper provides a review of the political economy of disaster risk reduction (DRR) and climate policy. It examines the institutional, economic, and political factors that influence the design and implementation of DRR and climate policy. The paper with findings for the future of DRR and climate policy. Finally, it identifies potential areas of research that could further increase political economy of DRR and climate policy.

The Political Economy of Disaster Risk Reduction and Climate Policy

The political economy of DRR and climate policy is shaped by a variety of institutional, economic, and political factors. These factors include the structure of government, the level of economic development, the availability of resources, the influence of special interests, and the interests of the public.

Government Structure

The structure of government is an important factor in the political economy of DRR and climate policy. Government structures vary from country to country, but all governments have the power to create, implement, and enforce policy. Governments are also responsible for providing resources for DRR and climate policy, such as funding and technical assistance.

The type of government and the number of levels of government involved in policymaking are also important considerations. In some countries, the central government has exclusive authority over DRR and climate policy. In others, the central government shares power with state or local governments. In still others, the government is divided into

multiple levels, each with its own authority to create and implement policy.

Economic Development

The level of economic development is also a key factor in the political economy of DRR and climate policy. Developed countries are more likely to have the resources, infrastructure, and political stability to enact and enforce effective DRR and climate policies. In contrast, developing countries may lack the resources and capacity to effectively implement these policies.

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Influence of Special Interests

The influence of special interests is another factor that shapes the political economy of DRR and climate policy. Companies, organizations, and other entities that have a vested interest in DRR and climate policy can shape the design and implementation of these policies. They may lobby governments to create policies that are beneficial to their interests, or they may use their influence to block or weaken policies that are not in their favor.

Interests of the Public

Finally, the interests of the public are an important factor in the political economy of DRR and climate policy. The public can influence the policymaking process by voting, protesting, and engaging in other forms of political activism. The public can also influence the design and implementation of policy by pressuring governments to create and enforce policies that are in their best interests.

Implications for the Future

The findings of this review suggest a number of implications for the future of DRR and climate policy. First, governments should ensure that their structures are conducive to effective policymaking. This includes government is organized in a way that is conducive to effective decision-making and that resources are available to implement DRR and climate policies.

DEFINITION OF DISASTER RISK REDUCTION AND CLIMATE POLICY

Disaster risk reduction and climate policy are strategies used to reduce the risk of natural disasters and mitigate the effects of climate change. Disaster risk reduction strategies focus on reducing the likelihood and severity of disasters, while climate policy involves initiatives aimed at reducing emissions and limiting global warming.

DRR focuses on reducing the vulnerability of individuals, communities, and nations to climate-related disasters, while climate policy focuses on the broader impacts of global climate change, such as greenhouse gas emissions, land-use change, and the impacts of climate change on food security and the economy [20]. These two areas of policy overlap in many ways with climate policies often contributing to DRR objectives, and DRR efforts often being used to reduce the impacts of climate change. The political economy of DRR and climate policy is an important consideration for understanding the dynamics of both areas of policy, as it helps to explain the drivers of policy formation and implementation, as well as the obstacles that may impede progress.

These policies and strategies focus on both proactive and reactive approaches to reducing disaster risk, such as improving risk management and early warning systems, increasing awareness of climate risks, and investing in infrastructure. Additionally, these policies seek to reduce greenhouse gas emissions and increase the use of renewable energy sources in order to limit the impacts of climate change.

OVERVIEW OF THE POLITICAL ECONOMY OF DISASTER RISK REDUCTION AND CLIMATE POLICY

This review examines recent literature in the field, focusing on the different actors, stakeholders, and policy instruments involved in the development and implementation of such policies. It highlights the various challenges, including those arising from inadequate international coordination, inadequate financing, and conflicting interests. It also looks at how these challenges can be addressed in order to ensure effective implementation of disaster risk reduction and climate policies [21]. Finally, it addresses the role of civil society in the development, implementation, and monitoring of such policies.

The political economy of disaster risk reduction and climate policy is an important area of research that has implications for policy makers, governmental authorities, and practitioners. Disaster risk reduction (DRR) and climate policy are increasingly important aspects of global and national policy agendas, as they are essential for addressing the impacts of climate change [19]. The political economy of these policies is complex and involves a multitude of actors, interests, and institutions.

This review will provide an overview of the political economy of DRR and climate policy, focusing on the literature related to the development and implementation of DRR and climate policy at the national and international levels. It will begin by introducing the concept of the political economy of DRR and climate policy and will then discuss the different factors that have been identified as playing an important role in the development and implementation of DRR and climate policy. Finally, the review will address some of the challenges and opportunities associated with DRR and climate policy.

The effects of climate change are becoming increasingly apparent and require a global response [22]. Disaster risk reduction (DRR) and climate policy are two important elements of an effective response to climate change. Although both of these policy areas are related, they are often treated as distinct, with the political economy of DRR and climate policy rarely being discussed in a comprehensive manner.

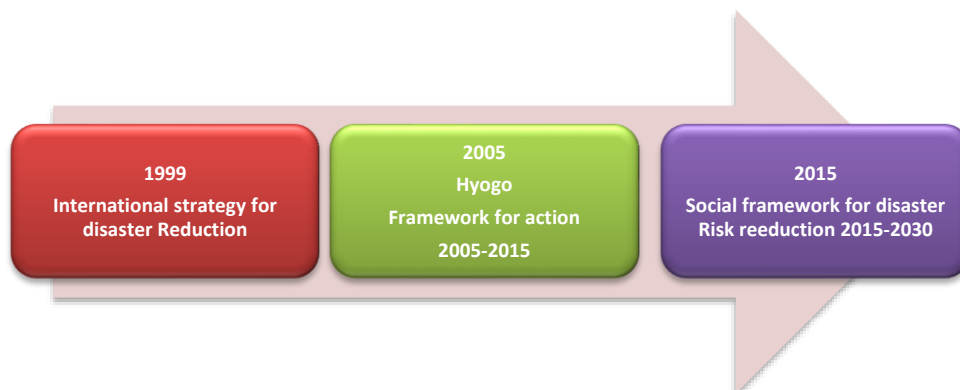


Figure 1: different policies developed within frequent year
(Source: made by the author)

It examines the political and economic dynamics that shape the implementation of DRR and climate policy, including the role of public and private actors, the influence of public opinion, and the potential for collective action. The review also considers the potential for DRR and climate policy to reduce risk and improve the resilience of communities and societies. Finally, it looks at the implications of the political economy of DRR and climate policy for policy design and implementation.

DRIVERS OF DISASTER RISK REDUCTION AND CLIMATE POLICY

The political economy of disaster risk reduction and climate policy is shaped by a number of factors, including economic incentives, public opinion, political power dynamics, and international and regional agreements. Incentives, such as economic subsidies and tax credits, has important role in encouraging the adoption of risk reduction and climate policies [18]. Public opinion can also be a major factor in the development and implementation of such policies. Political power dynamics, such as the distribution of resources between different stakeholders and the balance of interests between various actors, can be influential in determining the success or failure of certain policies. Finally, international and regional agreements, such as the Paris Climate Agreement, can be an important factor in the development and implementation of climate and risk reduction policies.

The political economy of disaster risk reduction and climate policy is a complex topic, and it is important to understand the various drivers of policy making in order to identify strategies that will be effective in achieving desired outcomes [23]. This review examines the various political, economic, and social factors, as well as the role of international cooperation.

The review draws on a range of sources, including research studies, policy documents, and international agreements. The review finds that political and economic drivers are often the most powerful forces in shaping the policies that are ultimately adopted. However, social factors, such as public opinion, media coverage, and civil society organizations, are also important in influencing policy outcomes. International cooperation is also essential for effective policy making, as countries work together to identify and implement effective strategies.

The political economy of climate policy is shaped by a complex set of factors and dynamics. These include the interests of state and non-state actors, the structure of international and domestic decision-making, the availability of resources, and the factors that influence the development of policy [17]. State actors, such as governments, have the power to shape policy through legislation, regulation, and other forms of influence. Non-state actors, such as corporations, civil society organizations, and international institutions, can also have an important role in influencing policy by providing resources, information, and advocacy.

The structure of decision-making is another key driver of policy. Decisions about disaster risk reduction and climate policies are often made within United Nations Framework Convention on Climate Change (UNFCCC), regional organizations, and national governments [24]. These institutions can have different levels of influence over policy and the decision-making process. The availability of resources is also an important factor in the political economy. Resources can include financial resources, such as funding for research and development, as well as human and institutional capacity.

Finally, the factors that influence the development of policy, such as public opinion, media coverage, scientific evidence, and the presence of influential stakeholders, can also have an impact on the political economy of disaster risk reduction and climate policy. These factors can determine whether a policy is adopted, and can also shape the form that the policy takes.

Economic Development

Disaster risk reduction (DRR) and climate policies are essential to ensure the long-term sustainability of a region's development. This review examines the political economy of DRR and climate policy, which refers to the interplay between economic, political, and social factors that shape the development, implementation, and enforcement of DRR and climate policies.

First, the review examines the economic costs and benefits of DRR and climate policies. It discusses the various ways in which these policies can generate economic benefits, such as improved economic resilience, increased economic growth, and improved risk management [25]. It also considers the economic costs associated with these policies, such as the costs of implementation, enforcement, and compliance.

Second, the review examines the political factors that shape the development, implementation, and enforcement of DRR and climate policies. It discusses the role of including government, corporations, and civil society organizations. It also considers the influence of public opinion and the media on the policy process.

Third, the review examines the social factors that shape the development, implementation, and enforcement of DRR and climate policies [16]. It considers the roles of various stakeholders, such as vulnerable communities, in the policy process. It also examines the role of public education and awareness campaigns in promoting DRR and climate policies.

Finally, the review examines the implications of the political economy of DRR and climate policy for economic growth and development. It discusses the potential for DRR and climate policies to create economic opportunities, particularly for vulnerable populations, and to foster economic resilience.

Overall, this review highlights the importance of the political economy of DRR and climate policy in the successful implementation of DRR and climate policies [26]. It also underscores the need for collaboration between

various stakeholders in the policy process and the importance of public education and awareness campaigns in promoting DRR and climate policies.

Political Ideologies

Political ideologies are sets of beliefs and values that shape the way people determine what is right or wrong, and how they make decisions. Political ideologies are generally divided into two broad categories: left-wing and right-wing.

Left-wing ideologies focus on the collective welfare of society, active role in providing economic and social opportunities for people. This includes advocating for social safety nets, progressive taxation, and the redistribution of wealth. It also includes advocating for environmental protection and the active reduction of greenhouse gas emissions.

Right-wing ideologies focus on individual liberty and free-market economics. This includes advocating for individual responsibility and for limited government interference in economic affairs. Right-wing ideologies also advocate for the privatization of industries and services, as well as for the deregulation of markets [27]. Right-wing ideologies tend to be sceptical of government-led initiatives to reduce disaster risk and combat climate change.

In order to effectively reduce the risks associated with effects of climate change, it is important to consider the range of political ideologies at play. By understanding the political context, policy makers can create solutions that are more likely to be accepted by a broader range of political stakeholders.

Incremental impacts on human settlements and built environments	Impacts on communities and residents	Natural environments
<ul style="list-style-type: none"> • Stress on building foundations • Road washouts due to water • Vector diseases spread • Stress on drinking water treatment 	<ul style="list-style-type: none"> • Heat strokes, malnutrition, Physical and mental disability • Exposure substandard elements • Disruption of basic services 	<ul style="list-style-type: none"> • Coastal erosion • Instability of Slopes • Ground water depletion • Reduction in green space

Table 1: Impact of different disasters
(Source: made by the author)

International Influences

International institutions, such as the United Nations, have been instrumental in setting global standards for disaster risk reduction and climate change policy, and in promoting and disseminating those standards to countries around the world. International financial institutions, play an important role in providing financial assistance to countries in need and in

developing and implementing policies and projects related to disaster risk reduction and climate change.

At the same time, international actors also exert a great deal of influence on national governments when it comes to climate policy. International organizations, such as the European Union, often require member states to adhere to certain standards and policies, and can impose sanctions on those who do not comply. International agreements, such as the Paris Agreement, can also have a major impact on the policies and practices of individual countries.

Private companies may have an incentive to invest in projects that reduce risk and promote climate-friendly practices, as these can lead to cost savings and improved corporate reputation [28]. At the same time, private companies may have an incentive to lobby against certain policies that may reduce their profits or increase their costs.

Finally, civil society organizations, such as environmental and human rights groups, can also have an impact on the political economy of disaster risk reduction and climate policy. These groups can advocate for changes to existing policies, or for new policies to be introduced. They can also provide support to those affected by disasters.

CHALLENGES FACING DISASTER RISK REDUCTION AND CLIMATE POLICY

This review examines the challenges that have arisen in the implementation of DRR and climate policy. The review begins by exploring the possible economic and political implications of DRR and climate policy. It then presents a comprehensive overview of the current state of DRR and climate policy, highlighting the various strategies in place to reduce risk and mitigate climate change [29]. This includes an examination of the various policy instruments used to tackle climate change and DRR, such as carbon taxes, emissions trading schemes, and subsidies.

The review then turns to the challenges facing DRR and climate policy. This includes an examination of the political economy of DRR and climate policy, which involves the interaction between governments, the private sector, and civil society. It also considers the role of the international community in DRR and climate policy, such as the role of the United Nations Framework Convention on Climate Change (UNFCCC).

Finally, the review examines the potential implications of DRR and climate policy for global economic growth and development.

ADOPTION OF MITIGATION STRATEGIES

In recent years as governments strive to address the challenges of climate change and its impacts on society [30]. Many countries are taking steps to reduce their risk of disasters, including implementing mitigation strategies such as early warning systems, infrastructure improvements, and risk reduction measures.

We discuss the various factors that influence the adoption of mitigation strategies and review the empirical evidence on

the effectiveness of these strategies. We then examine the role of policy instruments in influencing the adoption of mitigation strategies and discuss how these instruments can be used to support disaster risk reduction and climate policy. Finally, we discuss the potential implications of the political economy of disaster risk reduction and climate policy for future research and policy.

The climate policy is a complex and multi-faceted phenomenon, with a variety of factors influencing the implementation of strategies and policies to reduce disaster risk and respond to climate change [1]. These include the availability of financial resources, the capacity of institutions, the incentives of stakeholders, the role of international cooperation, the role of public opinion and the role of political actors. In terms of financial resources, there is a need for sufficient financing to support the implementation of risk reduction and adaptation measures.

This includes public funds, private sector investments and

international assistance. The capacity of institutions to design, implement and monitor policies is also critical. Institutional capacity includes the technical and organizational skills, the policy and regulatory frameworks, and the incentives and coordination mechanisms necessary to effectively reduce risk, develop adaptation strategies and implement climate policies [14]. In terms of incentives, the economic and political incentives that influence the adoption of risk reduction and adaptation strategies as well as climate policies need to be addressed. Incentives can include the availability of financial resources, the availability of public and private sector investments and the role of international cooperation. The role of public opinion is also important, as it can influence the adoption of risk reduction and adaptation strategies, as well as climate policies. Public opinion can be shaped by media coverage and information campaigns, as well as by the influence of civil society and other stakeholders.

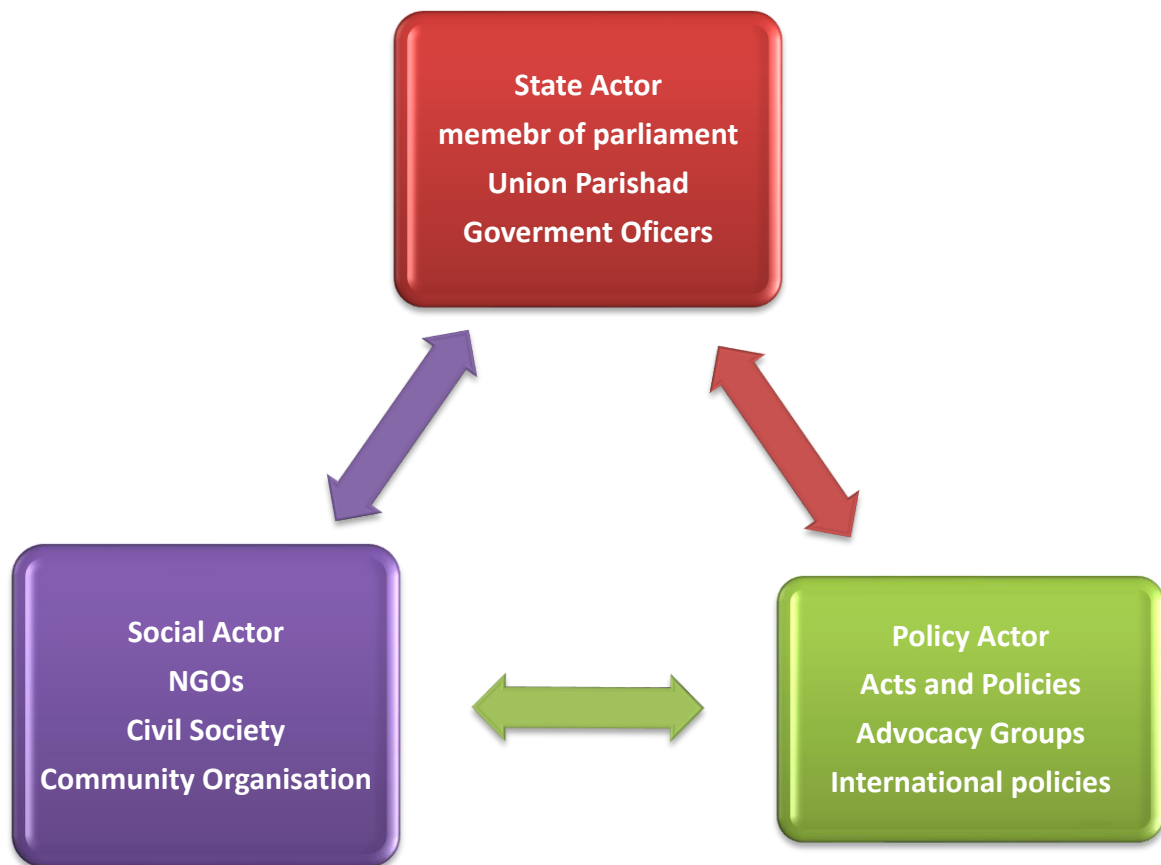


Figure 2: Connectivity among different actors
(Source: made by the author)

Finally, the role of political actors is also critical, as they can influence the implementation of risk reduction and adaptation strategies, as well as climate policies. This includes the influence of international organizations, governments and other political actors at the local, regional and national levels. The political economy of disaster risk reduction and adaptation strategies as well as climate policies is a complex and multi-faceted phenomenon, with a variety of factors influencing the implementation of strategies and

policies [2]. These factors include the availability of financial resources, the capacity of institutions, the incentives of stakeholders, the role of public opinion, the role of political actors and the role of international cooperation.

UNDERSTANDING OF RISK

This concept is a central component of policy and decision-making in the face of climate change and other

natural disasters. Risk is defined as the likelihood that a particular event will occur, as well as the potential consequences of such an event. The assessment of this risk and the formulation of associated policy is a complex process that requires an interdisciplinary approach. The political economy of disaster risk reduction and climate policy is often approached from a national level. Different countries and regions may have different levels of risk associated with various forms of natural disasters, and the policies that are implemented to mitigate these risks can vary widely.

Furthermore, different countries and regions may have different levels of resources available to address these risks. For example, some countries may have more robust systems of social protection and infrastructure, while other countries may have limited resources to respond to disasters [3]. At the international level, there are a number of initiatives that are designed to enhance disaster risk reduction and climate policy.

These initiatives are designed to provide a framework for countries to work together to reduce the risks associated with climate change and other forms of natural disasters. At the local level, the political economy of disaster risk reduction and climate policy is often addressed through the development of risk management plans [13]. These plans provide a framework for local governments and communities to assess their risks and develop strategies to address them. These plans can include measures such as early warning systems, evacuation planning, and community-level adaptation strategies. It requires an interdisciplinary approach and the implementation of a variety of strategies to ensure that risks are addressed in a comprehensive and effective manner. This is an important issue for all countries, as climate change and other forms of natural disasters are becoming increasingly common and pose a serious threat to human health, livelihoods, and the environment.

INTERNATIONAL COOPERATION

The political economy of disaster risk reduction (DRR) and climate policy is a rapidly growing field of research that studies the relationships between socio-economic and political factors and the management of climate mitigation. It examines the incentives, constraints, and power dynamics that influence decision-making with respect to these issues. This climate policy, with a focus on international cooperation [4]. It provides an overview of the main themes within the literature, including the role of international organizations, the politics of finance, the influence of private actors, the role of civil society, and the importance of public participation. The review also provides insights into the challenges faced in this field and suggests directions for future research.

The political economy of disaster risk reduction (DRR) and climate policy is a complex and evolving field. DRR and climate policies are designed to reduce the risk of disasters and climate-related impacts, such as extreme weather events, flooding, and drought. Such policies are typically developed and implemented at the national and international levels, and

the political economy of these policies can vary significantly between countries, regions, and globally [12]. Political economy refers to the interaction between political, economic, and social systems, and how these systems shape the development and implementation of DRR and climate policies. At the national level, DRR and climate policies are often shaped by the local political economy, which is determined by the economic, political, and social environment of the particular country. This local political economy can influence the design and implementation of DRR and climate policies, as well as the effectiveness of such policies in reducing risk and mitigating climate change.

	Social Protection	Adaptation	DRR
Core disciplinary Grounding	Development and welfare economics	Social development	Physical sciences and social development
Dominant focus	Implementation of measures to manage risk	Enabling processes of adaptation	Prevention of disaster events

Table 2: different protection and adaptation in disastrous situations

(Source: made by the author)

At the international level, DRR and climate policies are often shaped by global economic and political forces. International cooperation is essential for the success of DRR and climate policies, as they involve the coordination of multiple countries and other stakeholders, such as the private sector, civil society, and international development organizations. International cooperation also allows countries to share the costs of DRR and climate policies, as well as to benefit from the collective wisdom of different countries [5]. The political economy of DRR and climate policy is therefore a complex and dynamic field. It involves interactions between multiple actors and systems, and is constantly evolving to meet the changing needs of countries and stakeholders. International cooperation is an essential component of the political economy of DRR and climate change, as it allows countries to work together to reduce risk, mitigate climate change, and create a more sustainable future.

LACK OF RESOURCES

One of the main issues that affects the effectiveness of such policies is the lack of adequate resources to implement them. This is especially true in developing countries, where resources are often limited, and many governments have limited capacity to adequately fund and implement climate and disaster risk reduction policies.

In addition, there are a number of barriers to the effective management of climate risk and disaster risk reduction [11]. These include political constraints, such as the lack of political will to prioritize climate change policies, or the reluctance of governments to implement measures that may be economically costly or risky in the short-term. Other

barriers include a lack of public awareness or understanding of the risks involved and the importance of implementing disaster risk reduction measures, or a lack of coordination between different ministries and agencies.

In order to overcome these obstacles, it is important for governments to prioritize the development of well-funded and comprehensive climate and disaster risk reduction policies [6]. This requires a commitment to invest in research and development, as well as engaging stakeholders in the development of effective strategies. Furthermore, governments must also ensure that they have adequate resources to implement these strategies and provide the necessary technical and financial support. Finally,

governments must also ensure that they monitor and evaluate the implementation of these policies in order to ensure that they are effective.

One of the key challenges to effective implementation of disaster risk reduction and climate policy is the lack of resources and funding for these initiatives [9]. In particular, the development of effective policy requires significant investments in the form of research, technology, infrastructure, and capacity building. This can be particularly challenging for low- and middle-income countries, which often lack the financial and human resources needed to implement effective policies.



Figure 3: Different stakeholders in disaster management
(Source: made by the author)

In addition, there are also challenges related to how resources are allocated and used. In particular, there is an ongoing debate about how to best allocate resources to different sectors, and sustainable development. This debate is complicated by the fact that different groups have different interests and perspectives on the best way to use resources. For example, some countries may prefer to invest while others may prefer to put resources towards more immediate needs, such as infrastructure development, health, and education [7]. Finally, there is a lack of coordination and collaboration among different stakeholders, such as governments, international organizations, and the private sector. This can lead to delays in the implementation of policies, as different stakeholders have different goals and interests.

Overall, the lack of resources and funding for disaster risk reduction and climate policy is an ongoing challenge that must be addressed in order to ensure effective implementation. It is important and the private sector collaborate to ensure that resources are allocated and used in the most efficient and effective manner [8]. Additionally, there must be an ongoing dialogue between stakeholders to ensure that different interests are taken into account and that

resources are allocated appropriately.

CONCLUSION

The review finds that disaster risk reduction and climate policy is a complex and multifaceted political economy. The interplay between economic, social, environmental and political factors plays an integral role in determining the success or failure of policy implementation. The risk reduction and climate policy is growing, but there is a need for more in-depth and interdisciplinary research. Further research should focus on the interactions between the various stakeholders, the institutional context in which policies are implemented, and the effects of climate change on the political economy of disaster risk reduction and climate policy.

The review has demonstrated that climate policy are closely intertwined and can have far-reaching implications for political economy and economic development. While much remains to be done in terms of better understanding the underlying political and economic dynamics of these policies and their impacts on different stakeholders. It is clear that comprehensive and integrated approaches are needed to

ensure effective and equitable disaster risk reduction and climate policy. As the global climate crisis continues to worsen, it is essential that the political economy of these policies be further explored in order to ensure that the necessary actions are taken to reduce risk and protect vulnerable populations.

This review has highlighted the importance of considering political economic forces in the formulation of climate policies. The review has also highlighted the need for policy makers to assess the impacts of policy decisions on the broader political economic system and to consider the potential for policy interventions to shape the incentives and interactions between different political economic actors. In addition, the review has identified a range of potential policy instruments and implementation approaches that may be implemented to reduce risk and promote climate resilience. Finally, the review has highlighted the importance of considering economic implications of policy decisions and interventions in order to ensure that the most equitable and sustainable outcomes are achieved.

REFERENCES

- [1] Barnett, Jon. "Global environmental change II: Political economies of vulnerability to climate change." *Progress in Human Geography* 44.6 (2020): 1172-1184.
- [2] Krogstrup, Signe, and William Oman. "Macroeconomic and financial policies for climate change mitigation: A review of the literature." (2019).
- [3] Mall, Rajesh K., et al. "Disaster risk reduction including climate change adaptation over south Asia: challenges and ways forward." *International Journal of Disaster Risk Science* 10.1 (2019): 14-27.
- [4] Mall, Rajesh K., et al. "Disaster risk reduction including climate change adaptation over south Asia: challenges and ways forward." *International Journal of Disaster Risk Science* 10.1 (2019): 14-27.
- [5] Mall, Rajesh K., et al. "Disaster risk reduction including climate change adaptation over south Asia: challenges and ways forward." *International Journal of Disaster Risk Science* 10.1 (2019): 14-27.
- [6] Carton, Wim. "'Fixing' climate change by mortgaging the future: negative emissions, spatiotemporal fixes, and the political economy of delay." *Antipode* 51.3 (2019): 750-769.
- [7] Hügel, Stephan, and Anna R. Davies. "Public participation, engagement, and climate change adaptation: A review of the research literature." *Wiley Interdisciplinary Reviews: Climate Change* 11.4 (2020): e645.
- [8] Thomas, Kimberley, et al. "Explaining differential vulnerability to climate change: A social science review." *Wiley Interdisciplinary Reviews: Climate Change* 10.2 (2019): e565.
- [9] Robinson, Stacy-ann. "Climate change adaptation in SIDS: A systematic review of the literature pre and post the IPCC Fifth Assessment Report." *Wiley Interdisciplinary Reviews: Climate Change* 11.4 (2020): e653.
- [10] Mikulewicz, Michael, and Marcus Taylor. "Getting the resilience right: climate change and development policy in the 'African Age'." *New Political Economy* 25.4 (2020): 626-641.
- [11] Kemp, Luke, et al. "Climate Endgame: Exploring catastrophic climate change scenarios." *Proceedings of the National Academy of Sciences* 119.34 (2022): e2108146119.
- [12] Mattioli, Giulio, et al. "The political economy of car dependence: A systems of provision approach." *Energy Research & Social Science* 66 (2020): 101486.
- [13] Nightingale, Andrea Joslyn, et al. "Beyond technical fixes: Climate solutions and the great derangement." *Climate and Development* 12.4 (2020): 343-352.
- [14] Praveen, Bushra, and Pritee Sharma. "A review of literature on climate change and its impacts on agriculture productivity." *Journal of Public Affairs* 19.4 (2019): e1960.
- [15] Cattaneo, Cristina, et al. "Human migration in the era of climate change." *Review of Environmental Economics and Policy* (2019).
- [16] Monasterolo, Irene, Andrea Roventini, and Tim J. Foxon. "Uncertainty of climate policies and implications for economics and finance: An evolutionary economics approach." *Ecological Economics* 163 (2019): 177-182.
- [17] McDowell, Graham, et al. "Adaptation action and research in glaciated mountain systems: Are they enough to meet the challenge of climate change?." *Global Environmental Change* 54 (2019): 19-30.
- [18] Viner, David, et al. "Understanding the dynamic nature of risk in climate change assessments—A new starting point for discussion." *Atmospheric Science Letters* 21.4 (2020): e958.
- [19] Chomsky, Noam, and Robert Pollin. *Climate crisis and the global green new deal: The political economy of saving the planet*. Verso Books, 2020.
- [20] Seddon, Nathalie, et al. "Getting the message right on nature-based solutions to climate change." *Global change biology* 27.8 (2021): 1518-1546.
- [21] Nalau, Johanna, and Brodie Verrall. "Mapping the evolution and current trends in climate change adaptation science." *Climate Risk Management* 32 (2021): 100290.
- [22] Palm, Risa I., et al. *Earthquake insurance in California: environmental policy and individual decision-making*. Routledge, 2019.
- [23] Ghadge, Abhijeet, Hendrik Wurtmann, and Stefan Seuring. "Managing climate change risks in global supply chains: a review and research agenda." *International Journal of Production Research* 58.1 (2020): 44-64.
- [24] Goh, Kian. "Flows in formation: The global-urban networks of climate change adaptation." *Urban Studies* 57.11 (2020): 2222-2240.
- [25] Schipper, E. Lisa F., et al. "The debate: Is global development adapting to climate change?." *World Development Perspectives* 18 (2020): 100205.
- [26] Koubi, Vally. "Climate change and conflict." *Annual Review of Political Science* 22 (2019): 343-360.
- [27] Fox, Mary, et al. "Integrating public health into climate change policy and planning: state of practice update." *International journal of environmental research and public health* 16.18 (2019): 3232.
- [28] Botzen, Wouter, Sem Duijndam, and Pieter van Beukering. "Lessons for climate policy from behavioral biases towards COVID-19 and climate change risks." *World Development* 137 (2021): 105214.
- [29] Warner, Jeroen, and Ingrid Boas. "Securitization of climate change: How invoking global dangers for instrumental ends can backfire." *Environment and Planning C: Politics and Space* 37.8 (2019): 1471-1488.
- [30] Hornsey, Matthew J., and Kelly S. Fielding. "Understanding (and reducing) inaction on climate change." *Social Issues and Policy Review* 14.1 (2020): 3-35.