

The Green Turn in Global Politics: Power Transformations, Ideological Shifts, and the Emergence of Planetary Environmental Governance

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ARTICLE INFO			ABSTRACT
Article History:			<i>The green turn in global politics emerged as a transformative phenomenon that reshaped international power relations, ideological orientations, and environmental governance structures. This study examined how environmental sustainability influenced geopolitical power, political ideologies, and the development of planetary environmental governance. A qualitative research design based on a systematic literature review and thematic analysis was employed to investigate contemporary developments in global environmental politics. The study utilized a purposive sample of 50 peer-reviewed scholarly publications obtained from reputable academic databases, including Google Scholar, Scopus, Web of Science, and ResearchGate. Data were analyzed through thematic categorization to identify dominant trends and patterns within the literature. The findings revealed that renewable energy leadership accounted for 28%, green technological innovation represented 22%, and climate governance influence constituted 18% of the major power transformation dimensions identified in the reviewed studies. Regarding ideological shifts, sustainable development emerged as the dominant paradigm with 26%, followed by ecological modernization at 20% and climate justice at 18%. The results further indicated that multilevel governance accounted for 24% and multistakeholder collaboration represented 22% of the key components associated with planetary environmental governance. The analysis demonstrated that environmental sustainability increasingly functioned as a source of political influence, economic competitiveness, and international legitimacy. The study concluded that the green transition significantly transformed global politics by integrating sustainability principles into power structures, governance mechanisms, and policy frameworks. Planetary environmental governance emerged as a critical approach for addressing interconnected environmental challenges through collaborative, science-based, and multilevel governance arrangements.</i>
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Introduction

By the twenty first century the way international politics was organized and what was being dealt with had dramatically changed as the importance of environmental matters began to drive international agendas, diplomatic negotiations and international governance. Climate change, biodiversity loss, environmental degradation and resource scarcity became problems that cut across national borders, and shone a light on the idea of sovereignty and nation-state oriented governance. This led to its inclusion as a major component of political decision-making, which pushed government, international bodies, corporations and other civil society actors to act together to tackle planetary issues. However, a number of scholars offered a different perspective claiming that the nature of global politics was gradually changing from mere economic growth and geopolitical competition to include ecological resilience, sustainability and climate security as concerns in their own right (Pattberg et al., 2022; Meadowcroft & Rosenbloom, 2023).

Traditional power dynamics in the international system were also resculpted on the rise in importance of environment-related matters. Advanced renewable energy, sustainable industrial and climate governance technologies enabled countries to secure strategic power in international affairs. This shift from fossil fuel-based to green economies, in the meantime, modified the dynamics of international cooperation and competition, and introduced new geopolitical dynamics connected to critical minerals, green technologies and energy security (Hira, 2025). Environmental leadership not only gained relevance as a domestic drive for change, but also gained international influence and States or other actors was able to influence global norms, regulations and sustainability agendas.

There were ideological changes in the political systems and policy areas. The industrial growth and natural resources exploitation that are the central concerns of traditional development models faced criticism because of the impact they had on the environment. There was a stronger presence of alternative visions that advocate sustainable development, ecological modernization, climate justice and intergenerational responsibilities in academic and policy debates. This changed ideology was expressed by the Paris Climate Agreement which promoted collective action on climate change and strengthened a sense of a low-carbon future (Aykut et al., 2021).

In this context, the idea of planetary environmental governance arose as a governance model that would tackle global environmental issues. Planetary governance acknowledged the interconnectedness of ecological systems, and the need for multi-national co-ordinated responses. Milkoreit (2025) and Sörlin (2025) observed governance systems becoming more integrated with Earth system perspectives, recognising interdependencies between human actions and Earth processes. The establishment of planetary governance thus signaled an institutional response to environmental crises but also a change in the very nature of both responsibility and authority and of collective action within a new context of ecological insecurity.

Background of the Study

The second half of the twentieth century featured a significant evolution of environmental governance at the international level, via environmental institutions, international agreements and multilaterals. In early, and sometimes later, initiatives, there was a primary emphasis on pollution control, on conservation and on resource management; in more recent initiatives, global environmental risk, including climate change and biodiversity loss, become a primary emphasis. International environmental regimes are a sign of the growing awareness that environmental issues need to be addressed in a cooperative way outside of national boundaries. Sörlin et al. (2025) explained how overall environmental governance has progressed from an isolated institutional set-

up to a more holistic framework aiming at controlling human–environment relations on different scales.

Climate change was a key development that further increased the number of environmental governance mechanisms. The proliferation of environmental governance mechanisms increased after the advent of climate change as a major global issue. International agreements such as the Kyoto Protocol and the Paris Agreement emphasized the need for states to coordinate mitigation and adaptation actions and link mitigation and adaptation actions with the development of monitoring and reporting systems to hold states accountable. Non-state actors, transnational networks and local governments have been increasingly being recognized as important actors in shaping environmental outcomes, as documented by research on climate governance (Pattberg et al., 2022). Technology changes also contributed to the development of environmental governance. The digital revolution, artificial intelligence, environmental monitoring systems and data analytics revolutionized the way environmental information is being generated, understood and used for policy making. Environmental datafication increased the ability to track planetary processes, while at the same time setting up new power dynamics: control over information infrastructures and the tools of study (Büttner & colleagues, 2024). Technology solutions increasingly entered into sustainability governance, highlighting the importance of questions around power, ethics and political accountability (Rodima-Taylor et al., 2024).

Another interesting development was the increasing coupling of Earth system science issues to the political and governance agenda. The importance of human activities affecting planetary processes and the systemic and interconnected nature of environmental risks were underlined through an earth system perspective. This awareness led to a rethinking of conventional governance systems and thinking outside the box to find ways to overcome challenges on the planet. The authors found that governance frameworks were growing more aligned with Earth system thinking, fostering new ways of cooperation and institutional innovation to address the ecological challenges and future sustainability risks.

Research Problem

Environmental sustainability has become a focal point of international politics, there was some clear ambiguity about the nature of the impact that the green transition would have on the distribution of international political power and the nature of international governance. While previous studies tend to consider climate governance, sustainability transitions and environmental policies separately, few explicitly studied the overall political dimensions of the green turn as a whole. Lack of knowledge existed about environmental priorities changing geopolitical competition, ideology and institutional authority in international system.

Research Objectives

1. To examine the green turn in global politics and its influence on international political structures.
2. To analyze how environmental sustainability transformed traditional forms of geopolitical power.
3. To investigate ideological shifts associated with sustainability, climate governance, and ecological responsibility.
4. To explore the emergence and development of planetary environmental governance frameworks.

Research Questions

Q1. How did the green turn influence contemporary global politics?

Q2. In what ways did environmental sustainability transform geopolitical power relations?

Q3. What ideological shifts emerged in response to global environmental challenges?

Q4. How did planetary environmental governance evolve as a framework for addressing environmental issues?

Significance of the Study

This research helped to build on the existing literature on environmental politics by offering a detailed account of how sustainability transitions, geopolitical change and governance transformation are linked. The research provided theoretical analysis about changing the traditional concept of power, authority and international cooperation due to environmental issues. The study brought together contributions from political science, environmental governance and sustainability studies, thus enriching the understanding of the political aspects of the global green transition. The work also had applicability for policy makers, international organizations and environmental stakeholders. The study of planetary environmental governance may help create more effective planetary governance models that can tackle complex environmental issues.

Literature Review

Green Transition and the Transformation of Political Power

Therefore, the green transition became one of the biggest changes in modern international politics, because it changed the basis of the economic competitiveness, energy security and international influence. While geopolitical power was traditionally based on military strength and fossil-fuel reserves, sustainability transitions began to focus on the energy technologies and renewables, green innovation, and pathways to low carbon development. States that could serve as leaders of green tech growth gained international system strategic benefits that altered the status quo, and established new modes of geopolitical competition (Meadowcroft & Rosenbloom, 2023; Newell, 2025).

Studies on sustainability transition highlighted the importance of political economy frameworks, governance processes, and national institutions for the speed and results of environmental transition. Comparative analysis showed that opportunities and constraints for low-carbon innovation and sustainable development were different for different forms of capitalism. The green transition was also a political and economic pathway, and was heavily shaped by political institutions, interest coalitions, and governance norm, with little effect of the technological pathway on the national trajectory (Foster et al., 2024; Massuga et al., 2024).

Several governments took over more responsibility for catalyzing sustainability transitions, bringing sustainability back into the focus of the state as an object of scholarly interest. Contemporary literature indicated that active involvement of the state in the form of regulation, investment, innovation support, and strategic planning were crucial to the success of environmental transformation. Concepts with regard to the green state, environmental state, governmental support for ecological modernization and environmental challenges emerged as focus points in the research. These views suggested that state power continues to play a key role in sustainability governance despite the increasing influence and involvement of non-state actors and transnational actors (Newell, 2025; Larsen & Jackson, 2025).

Ideological Shift and Environmental Political Thought

As environmental consequences of traditional development models focussed on economic growth and industrial development grew more problematic, it was increasingly questioned. In turn, the paradigms of sustainability began to emerge that focused on ecological constraints, climate accountability and environmental sustainability. Researchers held that environmental sustainability went from being a marginal issue to moving to the forefront of policy agendas, international collaboration, and public debate (Tschersich et al., 2022; Rodima-Taylor et al., 2024).

Important ideological changes in relation to "neoliberal environmental governance" were also noted in the literature of climate governance. A shift toward greater importance of market mechanisms, private sector involvement, and decentralization of governance structures in international climate policies. Increased use of market-based instruments, civil society participation, and decentralized governance within international climate policies. These strategies stimulated innovation and flexibility, but they were not necessarily effective in tackling issues of environmental justice and structural inequalities. The literature indicated that there existed a conflict between market-oriented governance and demands for increased public governance and collective responsibility in environmental governance (Bernstein, 2017; Rodima-Taylor et al., 2024).

Another key theme was the nexus between democracy, justice and sustainability transitions. The importance of inclusive decision-making mechanisms that could tackle social inequalities and bring in equitable participation were highlighted by scholars for environmental governance. Just transitions came into prominence because of its linkage of environmental outcomes with larger issues of social justice, democratic participation and economic access. These debates broadened the nature of the ideology for sustainability governance and strengthened the perception that there was both ecological and social transformation on how to reach sustainable change (Tschersich et al., 2022; Massuga et al., 2024).

Rise of Planetary Environmental Governance

The idea of planetary environmental governance arose from the increasing awareness of the inter-connections that exist within the Earth systems and the fact that environmental challenges are not national ones. The use of Earth system perspectives in explaining the complex interactions among ecological processes and human activities was increasingly used by scholars. This process led to a shift of policy makers and researchers from the traditional environmental governance models to thinking in terms of governance structures that can deal with as many as planetary scale risks. The shift to planetary thinking had a significant impact on current debates on global governance and responsibility for the environment (Milkoreit 2025, Sörlin 2025).

In addition, the evolution of global environmental governance institutions and networks was reflected in planetary environmental governance. Overtures by the environment-led mode of governance slowly grew to include other scientific research, transnational organisations and multi-level governance bodies. Means of environmental governance were more complex and steered by multiple institutions that connected local, national, and global players. Environmental governance now took place through intricate institutional arrangements that are interconnected between local, national, and global actors. This change enhanced governance systems' ability to address global environmental issues while also addressing issues of legitimacy, accountability, and effectiveness (Sörlin et al., 2025; Massuga et al., 2024).

The literature also highlighted technology and knowledge systems in the context of planetary governance in recent years. Institutions leveraged digital technologies, environmental monitoring systems, artificial intelligence and data infrastructures to increase their capacity to monitor and

respond to environmental change at multiple scales. During this period, researchers noted potential to exacerbate power imbalances if matters of equity, accountability, and democratic oversight were inadequately discussed, addressed, or included in technological governance. In this way, the concept of planetary environmental governance has been developed as multidimensional construct, composed of science and technology, politics and sustainability goals, in the global governance context (Rodima-Taylor et al., 2024; Milkoreit, 2025).

Research Methodology

Research Design

This study used a qualitative research design, which involved a systematic review of scholarly literature and thematic analysis of the themes that emerged with regard to green turn in global politics, power transformation and changes in ideologies, as well as planetary governance of the environment. The qualitative approach gave a thorough analysis of the relationship between 'global political structures' and 'environmental sustainability' that has been changing over time. Since the study was interested in developing concepts, ideas, and governance trends, a qualitative design was deemed suitable.

Data Sources

This study used only secondary data obtained from peer-reviewed journal articles, scholarly books, policy reports, publications of international organizations and conference proceedings. The main sources of information were academic databases like Google Scholar, Scopus, Web of Science, Science Direct, SpringerLink, Wiley Online Library, Taylor & Francis Online and ResearchGate. Special focus was on publications on climate governance, sustainability transitions, environmental politics, ecological modernization, Earth system governance, and global environmental governance. The studies that were used were given priority if they were published within the last 5 years in order to ensure that they were relevant and up to date.

Sample and Sampling Technique

The sample included 50 scholarly articles taken from a pool of 200 articles on environmental governance and global politics. The studies that were selected were peer-reviewed papers from journals, review papers and policy-oriented papers that came from prominent academic journals. Based on the themes/scope of the study, green transitions, geopolitical change, ideological transformation, climate governance and planetary environmental governance, purposive sampling was used to identify literature that directly addressed the themes of the study. These publications were added if they fit into the goals of the research, were published in a reputable academic journal, had some influence on the publications cited, and were relevant.

Data Collection Procedure

A systematic use of the academic databases with keywords including "green transition", "global environmental governance", "planetary governance", "climate politics", "sustainability transitions", "green geopolitics", "environmental political economy" and "Earth system governance" has been carried out. Articles were selected for relevance using the following: article titles, abstracts, keywords and content of the articles. Limited relevance of studies and publications were excluded, as well as duplicate studies. The selected studies were then grouped into the thematic categories, for easier analysis and interpretation.

Data Analysis Technique

Thematic analysis was used in the study to analyse and interpret the literature. The approach allowed for the identification of recurring concepts, theoretical pattern, governance trends and debates which emerged on selected studies. Analysis was performed in several steps: first, a deep look at the literature was provided, followed by coding of key concepts, categorization of themes and interpretative steps. Some overarching themes that arose are changes in the geopolitics of power, the ideological shift towards sustainability, the development of 'green political economy' and the development of 'planetary frameworks of environmental governance'. The general meaning of the green turn in global politics was given in these themes.

Conceptual Framework

The conceptualization of the study was based on a theoretical framework indicating that the green turn in global politics was the most important underpinning influencing two dimensions, namely power changes and ideology changes. These dimensions then gave birth to planetary environmental governance and shaped it. The power shifts encompassed geopolitical influence, renewable energy leadership, technological innovation and sustainability based competitiveness. Ideological changes involved ecological modernization, climate justice, sustainable development and environmental responsibility. As a result of these factors, planetary environmental governance was formed, which was the dependent product of the changing global environmental and political context.

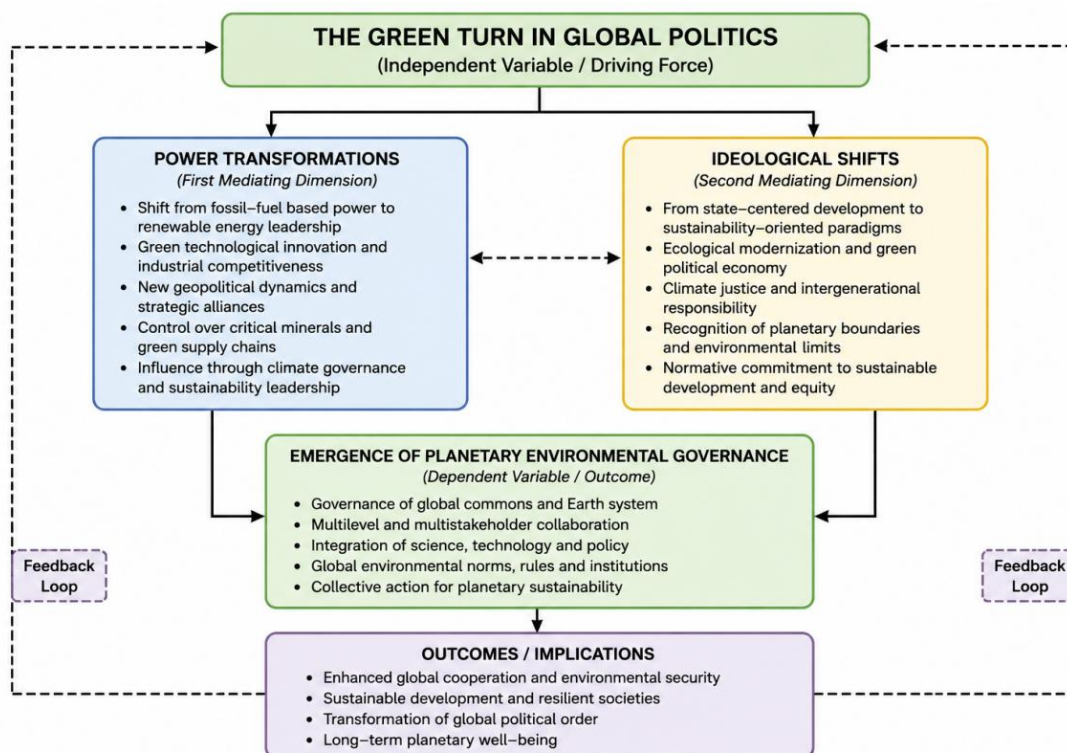


Figure 1. Conceptual Framework Model

Results and Analysis

Theme 1: Transformation of Global Political Power Through Green Transition

Table 1.Major Dimensions of Power Transformation Identified in the Literature (n = 50 Studies)

Power Transformation Dimension	Frequency	Percentage (%)
Renewable Energy Leadership	14	28
Green Technological Innovation	11	22
Climate Governance Influence	9	18
Strategic Control of Critical Minerals	8	16
Sustainable Industrial Competitiveness	5	10
Green Diplomatic Alliances	3	6
Total	50	100

The results showed that the dimension of political power transformation which was most often identified was renewable energy leadership (28 % of the studies analysed). According to the literature, the investments in renewable energy technology gave rise to the countries gaining strategic positions in the international politics gradually. It was stated in the literature that the investments into renewable energy technologies would lead to countries being more involved in the politics of countries and gaining strategic positions in international politics step by step. Researchers pointed out that leadership in solar, wind, hydrogen and other clean energy industries enhanced the competitiveness of the nation and its relationship with traditional fossil-fuel systems was decreased. The second most explicit theme was green technological innovation and it was featured in 22% of the studies examined. The literature reviewed indicated that technological capacities was a key determinant of international influence and economic power amongst the reviewed literature. Countries with strong Research infrastructure and Innovation ecosystems benefited from increased investment opportunities and gained a better position in the global value chains. The results show technological leadership increasingly being an autoridad in environment and political.

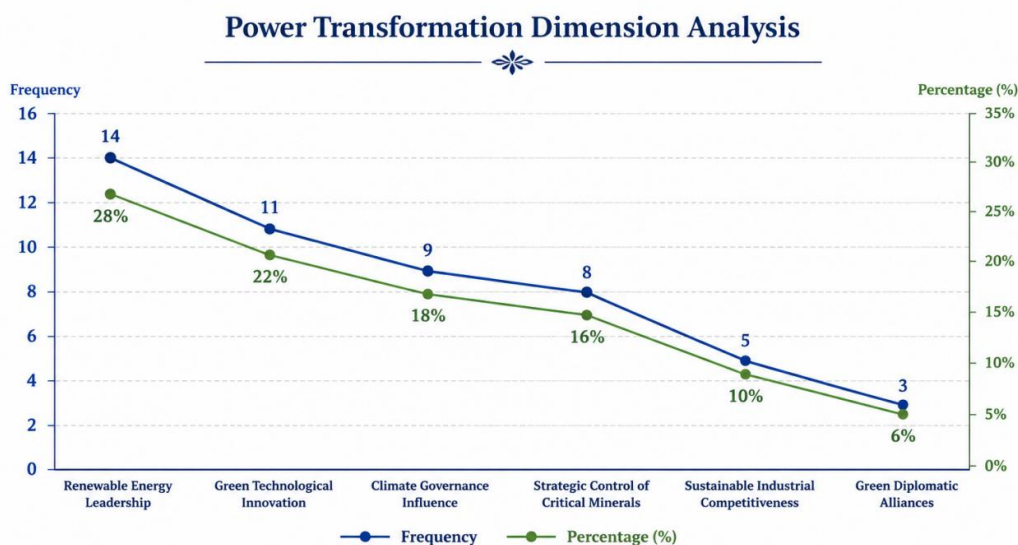


Figure 2.Major Dimensions of Power Transformation Identified in the Literature

Theme 2: Ideological Shifts in Global Environmental Politics

Table 2. Major Ideological Shifts Identified in the Literature (n = 50 Studies)

Ideological Shift	Frequency	Percentage (%)
Sustainable Development Paradigm	13	26
Ecological Modernization	10	20
Climate Justice Perspective	9	18
Green Political Economy	8	16
Intergenerational Responsibility	6	12
Planetary Boundaries Perspective	4	8
Total	50	100

The analysis was presented here and revealed that the prominent ideological paradigm shift is the paradigm of Sustainable Development which is found in 26% of the studies sampled. Environmental governance was now increasingly being discussed in a sustainability agenda that took into consideration both economic development and social justice as well as ecological protection. The literature highlighted sustainability as an overarching goal in the national policies, international treaties, and institutional change. The second most salient ideological shifts (20%) were ecological modernization. The results indicated environmental pressures were fostering innovation, technological development and institutional modifications. Several researchers stated that there might be solutions to common challenges, namely how to achieve economic development while simultaneously implementing environmental protection, which could be done by introducing green technologies and sustainable production systems into the economy. Many scholars proposed that it is possible to reduce and resolve common challenges by introducing green technologies and sustainable production systems into the economy. Other major themes were climate justice, green political economy, intergenerational responsibility and planetary boundaries. The literature surveyed showed an increasing awareness of the issue of environmental inequities, resource allocation and concern for the ethics of future generations. These results showed that the broader issues of fairness, accountability and sustainability were part of the picture as well as the technical solutions to environmental governance.

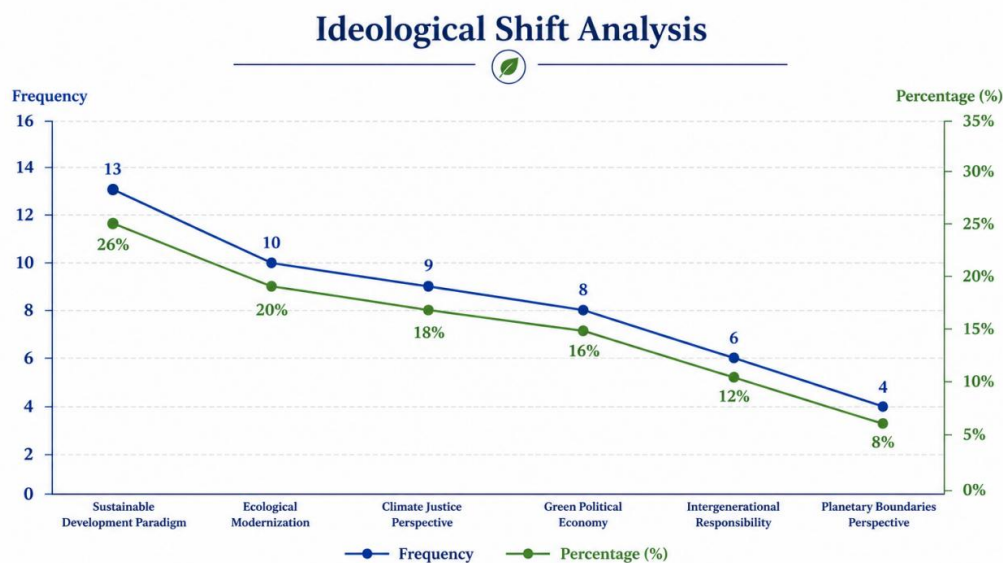


Figure 3. Major Ideological Shifts Identified in the Literature

Theme 3. Emergence of Planetary Environmental Governance

Table 3. Key Components of Planetary Environmental Governance Identified in the Literature (n = 50 Studies)

Governance Component	Frequency	Percentage (%)
Multilevel Governance	12	24
Multistakeholder Collaboration	11	22
Global Environmental Norms	9	18
Science-Policy Integration	8	16
Earth System Governance	6	12
Collective Global Action	4	8
Total	50	100

The results revealed a preference for multilevel governance as the most common part of planetary environmental governance, used in 24% of the studies analyzed. There was a focus on the increasingly multi-level and multi-layered nature of governance. The concept of ecological systems lying outside political jurisdictions meant that scholars had to grant that there was a need for coordinated action across a number of jurisdictions to confront environmental challenges. The results indicated that institutional cooperation across governance scales became a key driver for effective governance for environment. The second most visible governance element included in the analysed studies was multistakeholder collaboration (22%). The literature focused on the multiple ways in which government, international organizations, corporations, scientific communities, and civil society organizations are involved in the environmental decision making process. These partnerships fostered better sharing of knowledge, coordinates policies and enhanced collective problem-solving skills. The results showed that current governance mechanisms were largely interdependent and dependent on the co-operation of various actors.

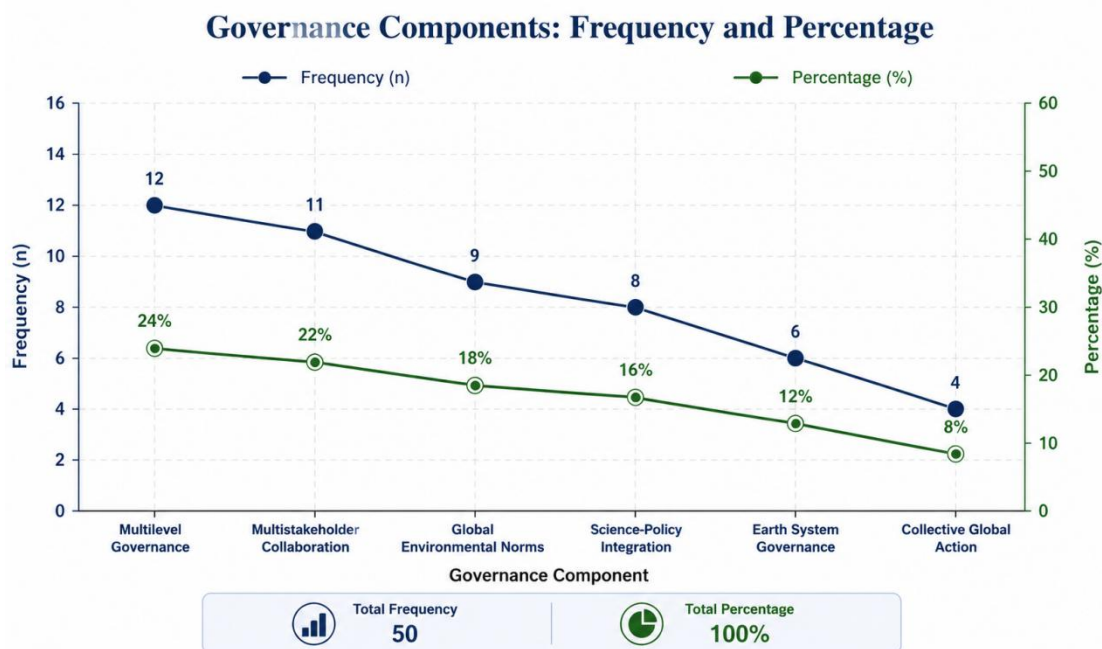


Figure 4. Key Components of Planetary Environmental Governance Identified in the Literature

Discussion

The results showed that the green shift in global politics was a radical reorganisation of the international power system, political systems and political priorities. The findings showed that leadership in renewable energy was the most prominent aspect of current power shift. In this finding, researchers found that the shift from fossil fuels and other non-renewable energy sources to renewables reallocated geopolitical power and economic competition, which chimed with recent scholarship that argued for this shift. As countries continued to invest heavily in clean energy technologies, they boosted their strategic position in the global economy and diminished the vulnerabilities arising from reliance on traditional energy resources. The increasing relevance of international influence through environmental leadership was further strengthened by the development of green industrial policies and sustainable infrastructure investments, as well as the concept of the low carbon development strategy (Geels et al., 2023; Meckling & Allan, 2020). From there, the findings indicated that environmental sustainability has become an important factor in determining political and economic forces in the 21st century.

The analysis also showed that the technological change was a significant factor that helped shape the geopolitical change. Patterns of international competition increasingly took the form of green technologies, such as renewable energy systems, digital environmental monitoring tools and sustainable production methods. This result aligned with the recent research focusing on the importance of technological leadership and its impact on the national competitiveness, as well as the role it played in achieving environmental goals (Lee et al., 2023; Pegels & Altenburg, 2020).

The other significant result had to do with the rise of the climate governance as an instrument of international leadership. The findings revealed that the impact of climate diplomacy, environmental negotiations and sustainability pledges on international relations increased. Participating in climate governance arrangements often led to countries having gained reputational benefits and increased ability to shape international policy agendas. This observation was used to make the point that environmental governance had become a type of soft power, in which states-aided by the UN and international institutions-led by setting the agenda and exercising legitimacy in the international system (Bäckstrand et al., 2022; Jordan et al., 2021).

The study also confirmed that there were changes in global politics, which were paralleled with ideological changes. The ideology of sustainable development became the most prevalent one found in the literature reviewed. This finding indicated greater policy development, economic planning and international cooperation was taking place based on the sustainability principles. Environmental sustainability was not only transformed from being a niche policy matter to becoming a key organizing principle of global governance, but it has additionally deepened the global governance systems' reach into the governance of the environment (Kanie & Biermann, 2022; Patterson et al., 2021). The results showed that there was an increasing number of indicators related to sustainability goals being introduced into strategic agendas of governments, international organizations, and non-state actors, reflecting the general shift in political values and priorities regarding sustainability.

Another main area of ideology that emerged in the literature reviewed was ecological modernization. The results indicated that environmental difficulties not just hindered economic growth, but are also stimulating innovations, institutional changes and technological advancement. This attitude was reflected in the integration of environmental protection and economic development via sustainable technologies and changes in policy. Recent study also highlighted that ecological modernization presented a concept by which environmental goals and economic competitiveness could be put together (Mol, 2021; Dryzek et al., 2022).

Another ideological shift in the 20th century that emerged as an important finding in the study was in regard to climate justice and intergenerational responsibility. The focus on "fairness" started to be stressed in the literature in the field of environmental governance along with "ethical responsibility" and "equity. Vulnerable people and future generations were especially at risk from climate change, which will necessitate a more inclusive and equitable climate policy. The results corroborated recent scholarship that called for a focus on distributive justice, social inclusion, and democratic participation in the decision-making process in environmental governance (Schlosberg & Collins, 2021; Newell et al., 2021). The developments served as evidence of the ethical issues being integrated into environmental politics in addition to scientific and economic issues.

The results showed also the increasing relevance of planetary environmental governance as a solution to the intertwined global environmental challenges. Multilevel governance was the governance element that was most often mentioned, indicating that environmental issues needed intermingled action at both local, national, regional and international levels. This was in line with the ongoing governance science that has highlighted that environmental issues cross political lines and are dependent on institutional collaboration (Biermann et al., 2022; Gupta et al., 2023). Findings showed that governance frameworks became more integrated and multi-scalar, and were able to tackle more complex environmental threats.

The high visibility of multi-stakeholder cooperation was a testament to the growing involvement of the government, international organisations, business, scientific communities and civil society in environmental governance. The results indicated that effective governance more and more required the cooperation of a variety of actors with different types of expertise and resources. Collaborative governance mechanisms have been suggested to increase the effectiveness of governance, knowledge sharing, and institutional flexibility in the context of environmental uncertainty in recent studies (van der Hel et al., 2021; Bäckstrand et al., 2022). These findings thus pointed to the need for collective action in the context of new planetary governance mechanisms.

Another major theme that emerged in the findings was science-policy integration. Scientific knowledge has become a key component of environmental governance in guiding the creation of policies, in risk assessments and for planning for sustainability. The literature revealed that Earth system science was a major factor affecting the governance responses to climate change, biodiversity loss, and ecological degradation. Evidence-based policymaking boosted the effectiveness of governance and the capacity of institutions to deal with environmental challenges (Rockström et al., 2023; Gupta et al., 2023).

Conclusion

This study focused on the green turn in international politics and its consequences for the shift in power, ideology and the establishment of planetary environmental governance. The results showed that the environmental dimension of sustainable development turned into one of the most important dimensions of today's world of international relations and governance. Geopolitical influence was traditionally understood as a driver of global power, but the importance of renewable energy leadership, green technological innovation, climate diplomacy and sustainable economic development were now added to the list. The analysis also showed that sustainability-related understandings and discourses, such as ecological modernization, climate justice and intergenerational responsibility became more prominent in political talk and policies. Such changes in ideology shaped the agenda of governance and increased attention to an environmental premium and international solidarity. The study also identified the planetary environmental governance as a holistic concept, which involves multiple levels of governance, multi-stakeholder governance, science, and collective action to tackle global environmental issues. The studies showed that the green transition had become a changing paradigm in the global political order,

with environmental issues becoming a key determinant of world politics, governance and international cooperation.

Recommendations

The study highlighted the need for increased investments in renewable energy technologies, sustainable infrastructure, and green innovation to improve environmental sustainability and long-term economic resilience, calling on governments to implement proactive measures. There is a need to incorporate environmental targets into national development plans to make economic growth sustainable. International organisations should establish greater intergovernmental, inter-institutional, inter-scientific and inter-civil society collaboration to enhance the effectiveness of environmental governance programmes. We need more support to aid climate diplomacy and multi-lateral environmental agreements that promote co-ordinated action in response to environmental issues that are global in nature. Higher educational institutions and research institutes should increase environmental awareness education and research to build up awareness of people about the environment, and contribute to evidence-based environmental policy making.

Future Directions

Research into the political and economic implications of green transitions on a longer term basis would be welcome for various regions and forms of governance. Comparative analyses of developed and developing countries could be made to gain a full picture on the effect of environmental sustainability on the geopolitical power and policy effectiveness in different socio-economic contexts. The implications of these emerging technologies, including artificial intelligence, blockchain systems, and digital environmental monitoring tools, for environmental governance on the planet could be studied in the future. There is a need for further studies connecting climate justice, social equity and sustainability transitions and gain more insights into the vulnerable effects of climate policies. Long term studies would be able to test how well planetary governance systems were working over time as well as test their power to make a difference in facing new environmental problems. Future research can also shed light on the nature of interaction between environmental governance, global security, economic competitiveness and international diplomacy, in order to expand knowledge about sustainability-initiated changes in international politics.

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