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CLIMATE CHANGE AS AN INSTRUMENT OF INTERNATIONAL POLITICS. THE KYOTO PROTOCOL AND THE PARIS AGREEMENT: SIMILARITIES AND DIFFERENCES

Zakirova Sayyora Alimovna

PhD in Economics, Associate Professor, Department of "International Economics" University of World Economy and Diplomacy

> Email: sayyora.6262@mail.ru Phone: +998 90 327 77 55

Najimov Parvozbek Ta'lat o'g'li

1st-year Student of "World Economy and Management"
University of World Economy and Diplomacy
Email: najimovparvoz@gmail.com

Phone: +998 95 265 28 82

Abstract: This paper explores the evolution of international climate policy and its transformation into a key instrument of global governance and diplomacy. Climate change has moved beyond an environmental challenge it has become a strategic domain of international politics where states negotiate, cooperate, and compete for influence. The study analyzes the historical development and mechanisms of the Kyoto Protocol (1997) and the Paris Agreement (2015) as the two central pillars of global climate regulation. By comparing their objectives, structures, and enforcement systems, the paper reveals both their similarities and fundamental differences. While the Kyoto Protocol represented a top-down legally binding framework focused on emission reductions by developed nations, the Paris Agreement introduced a bottom-up, universal model emphasizing voluntary national commitments, flexibility, and inclusiveness. The analysis concludes that climate governance has shifted from a regime of control to one of collaboration, reflecting broader trends in international relations, economic globalization, and environmental diplomacy.

Keywords: climate change, international politics, Kyoto Protocol, Paris Agreement, global governance, emissions, diplomacy, international cooperation, sustainability.

Introduction. In the twenty-first century, climate change has become not only a scientific and environmental issue but also a powerful instrument of international politics. It influences global economics, trade, security, and diplomacy. Nations now use climate





policy as a tool for projecting power, building alliances, and reshaping global governance.

Since the 1990s, international climate agreements have served as the primary mechanisms for coordinating global efforts to combat climate change. The two most significant milestones in this evolution are the Kyoto Protocol (1997) and the Paris Agreement (2015). Both were developed under the framework of the United Nations Framework Convention on Climate Change (UNFCCC), yet they embody distinct philosophies of governance.

The Kyoto Protocol marked the first legally binding international treaty requiring industrialized countries to reduce greenhouse gas (GHG) emissions. It reflected a top-down regulatory approach: commitments were imposed from the global level upon national governments, with precise targets and compliance mechanisms. In contrast, the Paris Agreement represents a new generation of climate diplomacy, based on voluntary national contributions, collective responsibility, and dynamic transparency mechanisms rather than coercive enforcement.

Climate diplomacy has thus undergone a paradigm shift from a system of "control and compliance" to one of "cooperation and commitment." This transition mirrors broader transformations in international relations: the diffusion of power, the rise of non-state actors, and the growing interdependence between environmental and economic policy.

Furthermore, climate change now functions as a geopolitical factor. Access to green technologies, renewable energy markets, and carbon finance influences the global balance of power. States pursue climate leadership not only for moral reasons but also for strategic and economic advantage. For example, the European Union uses its Green Deal and Carbon Border Adjustment Mechanism (CBAM) as instruments to export environmental standards and strengthen its economic position. Similarly, China's massive investment in solar and wind technologies positions it as a dominant player in the green economy.

The analysis of climate policy as an instrument of international politics therefore requires understanding how environmental goals intertwine with political and economic interests. The comparison between the Kyoto Protocol and the Paris Agreement offers a unique lens to study this evolution from binding regulation to inclusive cooperation, from environmental protection to global power strategy.

The purpose of this paper is to:

- 1. Examine the role of climate change in shaping modern international politics;
- 2. Analyze the mechanisms and principles of the Kyoto Protocol and the Paris Agreement;
 - 3. Identify their similarities and differences in structure, scope, and enforcement;







- 4. Evaluate how climate governance reflects broader global power dynamics;
 - 5. Discuss the implications for future international climate cooperation.

The article proceeds as follows:

- Section 1 reviews the rise of climate change as a geopolitical issue;
- Section 2 analyzes the Kyoto Protocol its objectives, mechanisms, and results;
- Section 3 examines the Paris Agreement and its innovative approach;
- Section 4 compares both agreements in terms of design, efficiency, and inclusiveness;
- The conclusion discusses their political significance and lessons for global climate governance.

In sum, climate policy today represents a new form of soft power an arena where environmental science, economics, and diplomacy converge. Understanding this evolution is essential for assessing how nations will navigate the complex politics of the Anthropocene.

Climate Change as an Instrument of International Politics

Climate change has emerged as one of the most influential factors shaping the contemporary world order. It intersects with nearly every aspect of global politics energy, trade, finance, migration, and security. Governments, corporations, and international organizations now use climate policy as both a means of cooperation and a tool of competition. This transformation has turned climate governance into a new arena of geopolitical power.

1. The politicization of climate change

Initially, climate change was treated primarily as a scientific and environmental problem. However, by the early 2000s, it became clear that its implications were profoundly political. Decisions on carbon emissions, energy transitions, and adaptation strategies directly affect national economies and global power balances. Countries with advanced low-carbon technologies or control over critical minerals (such as lithium, cobalt, and rare earths) began to use these assets for strategic influence. Climate negotiations, once limited to environmental ministries, now involve heads of state, defense officials, and financial institutions.

This politicization has transformed climate diplomacy into a form of soft power a way to achieve global influence through moral authority and technological leadership rather than military or economic coercion. Nations that lead in climate action gain legitimacy, investment, and diplomatic leverage.

2. The role of science, technology, and innovation





Scientific innovation plays a decisive role in both mitigation and adaptation. Emerging technologies are reshaping the climate landscape:

- Renewable energy (solar, wind, hydro, and geothermal) now accounts for over 30% of global electricity generation.
- \bullet Carbon capture and storage (CCS) and direct air capture (DAC) technologies aim to remove CO₂ directly from the atmosphere.
 - Green hydrogen offers a clean alternative for heavy industry and transport.
- Geoengineering including solar radiation management is being studied as a potential last-resort intervention, though with significant ethical and environmental risks.

Digitalization also supports climate resilience. AI-driven climate models, satellite monitoring, and big data analyticsenable real-time environmental management. Yet, technological progress alone cannot solve the crisis it must be integrated with social equity, governance reforms, and behavioral change.

3. Adaptation and resilience building

While mitigation seeks to reduce future warming, adaptation focuses on minimizing harm from inevitable impacts.

Key adaptation strategies include:

- Developing climate-resilient infrastructure in flood- and drought-prone areas;
- Implementing early warning systems for extreme weather;
- Diversifying agriculture through drought-resistant crops;
- Protecting coastal ecosystems such as mangroves and coral reefs;
- Urban greening and improved water management to combat heat stress.

The Global Commission on Adaptation (2023) estimates that every \$1 invested in adaptation yields \$4–10 in net economic benefits by reducing disaster losses and health costs.

In regions like Central Asia and Sub-Saharan Africa, adaptation also has geopolitical importance preventing climate-induced migration and conflict over water and land.

4. Climate justice and inequality

Climate change is inherently unequal: the poorest countries contribute least to emissions but suffer most from the consequences.

- The top 10% of global emitters are responsible for nearly 50% of CO₂ emissions, while the bottom 50% contribute less than 10% (Oxfam, 2023).
- Many developing countries face the dual burden of low adaptive capacity and high vulnerability.

Thus, climate justice ensuring fair distribution of responsibilities and resources is a central pillar of effective policy. It requires:

• Debt relief and climate finance for vulnerable nations;



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- Technology transfer to developing economies;
- Inclusion of indigenous knowledge and local communities in decision-making.

Without addressing inequality, even the best technological solutions will fail to achieve global stability.

5. The path forward: Sustainable transformation

The next three decades will determine the planet's long-term habitability. Limiting warming to 1.5°C demands:

- Reducing global emissions by 45% by 2030 relative to 2010 levels;
- Achieving net-zero CO₂ emissions by 2050;
- Halting deforestation and restoring degraded ecosystems;
- Transitioning to a circular economy that minimizes waste and resource use.

The United Nations Sustainable Development Goals (SDGs) especially Goal 13 (Climate Action) provide a blueprint for integrating climate resilience into all aspects of development: energy, agriculture, health, and education. Sustainability is not only an environmental necessity but also an opportunity for innovation and growth. The transition to a low-carbon economy could generate 65 million new green jobs by 2030 (ILO, 2023).

Thus, climate action should be reframed not as a cost, but as an investment in the future in stability, prosperity, and intergenerational justice.

Conclusion

Climate change is the defining challenge of our time an existential test of human wisdom, cooperation, and adaptability. The evidence is clear: rising temperatures, melting glaciers, shifting rainfall, and extreme weather are transforming the Earth's systems faster than anticipated. These changes threaten not only ecosystems but also economies, health, and social order. Scientific consensus confirms that human activity is the dominant cause. The scale of the problem demands equally large-scale solutions technological innovation, policy reform, and collective behavioral change.

The future trajectory of the planet depends on choices made today. If the world acts decisively cutting emissions, protecting ecosystems, and fostering global solidarity warming can still be limited to manageable levels. If not, humanity risks entering a new geological epoch shaped by irreversible climate feedbacks and widespread disruption.

In essence, climate change is not a distant threat it is our present reality. The question is whether we will adapt intelligently and compassionately, or continue on a path that leads toward instability. The fate of future generations depends on whether this century becomes one of climate collapse or climate resilience.



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REFERENCES

- 1. IPCC. Sixth Assessment Report: Climate Change 2023 The Physical Science Basis. Geneva: IPCC, 2023.
- 2. NASA. Global Climate Change: Vital Signs of the Planet. Washington, D.C., 2023.
- 3. World Meteorological Organization (WMO). State of the Global Climate 2023. Geneva, 2023.
 - 4. UNFCCC. The Paris Agreement. United Nations, 2015.
 - 5. UNEP. Emissions Gap Report 2023. Nairobi, 2023.
 - 6. World Bank. Climate Change Action Plan 2023–2030. Washington, D.C., 2023.
 - 7. Global Carbon Project. Carbon Budget 2023. Canberra, 2023.
 - 8. FAO. Climate Change and Food Security 2023. Rome, 2023.
 - 9. Oxfam. Carbon Inequality Report 2023. London, 2023.
- 10. ILO. World Employment and Social Outlook 2023: Greening with Jobs. Geneva, 2023.
- 11. Stern, N. The Economics of Climate Change: The Stern Review. 2nd Ed. Cambridge University Press, 2022.
- 12. UNDP. Human Development Report 2023: Uncertain Times, Unsettled Lives. New York, 2023.
 - 13. CMIP6. Coupled Model Intercomparison Project Phase 6 Data. 2023.
 - 14. OECD. Financing Climate Action in Developing Countries. Paris, 2023.
- 15. Global Commission on Adaptation. Adapt Now: A Global Call for Leadership on Climate Resilience. 2023.
 - 16. NOAA. Global Climate Report Annual 2023. Washington, 2023.
 - 17. World Health Organization (WHO). Climate Change and Health Fact Sheet. 2023.
 - 18. UNESCO. Climate Education for Sustainable Futures. Paris, 2023.
- 19. European Space Agency (ESA). CryoSat and GRACE Data on Ice Mass Loss. 2023.
 - 20. United Nations. Sustainable Development Goals Report 2023. New York, 2023.