CLIMATE STRATEGIES OF THE WORLD'S NATIONS

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'gli
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: *The global climate crisis has become the defining challenge of the twenty-first century, prompting nations to adopt ambitious strategies aimed at reducing greenhouse gas emissions and achieving climate neutrality. Climate strategies vary widely depending on national priorities, economic structures, and resource endowments, yet all share a common goal: to limit global warming in line with the Paris Agreement. This article provides a comparative analysis of the climate strategies of leading economies—such as the European Union, the United States, China, Japan, and India—alongside emerging economies that play crucial roles in the global transition. Drawing on statistical data from the International Energy Agency (IEA), the United Nations Framework Convention on Climate Change (UNFCCC), and the World Bank, the study examines national targets, policy instruments, and progress toward net-zero emissions. The findings underscore that while global ambition has increased, the pace and scale of implementation remain uneven, necessitating stronger international coordination and technological cooperation.*

Keywords: *climate strategies, Paris Agreement, carbon neutrality, greenhouse gas emissions, renewable energy, sustainable development, decarbonization, environmental policy.*

Climate change has transformed from a scientific concern into a central political and economic issue of our time. The accumulation of greenhouse gases in the atmosphere has led to rising global temperatures, extreme weather events, and the disruption of ecosystems. To confront these challenges, countries around the world have developed and implemented climate strategies that integrate environmental objectives with economic and social development. These strategies are built upon the collective framework of the Paris Agreement, adopted in 2015, which aims to limit global

temperature rise to “well below 2°C” and pursue efforts to restrict it to 1.5°C above pre-industrial levels.

Climate strategies differ across nations, reflecting varying levels of industrialization, energy dependence, and governance capacity. Developed economies emphasize technological innovation and carbon pricing, while developing countries focus on balancing climate goals with growth and poverty reduction. Nevertheless, all strategies share key pillars: decarbonization of energy systems, promotion of renewable sources, enhancement of energy efficiency, and adaptation to climate impacts.

Table 1. Climate Strategies of Selected Nations (as of 2024)

Country / Region	Net-Zero Target Year	Key Policies and Instruments	Share of Renewables in Electricity (2023, %)	CO_2 Emissions Change (2010–2023, %)
European Union	2050	European Green Deal, Fit for 55, ETS, Just Transition Fund	42	−34
United States	2050	Inflation Reduction Act, Clean Power Plan, Carbon Standards	33	−15
China	2060	National ETS, Five-Year Plan on Green Development, Renewable Expansion	32	+8
India	2070	National Solar Mission, Energy Efficiency Mission, Biofuel Policy	27	+35

Japan	2050	Green Growth Strategy, Hydrogen Roadmap, Energy Transition Plan	29	−20
Brazil	2050	Amazon Restoration Plan, Bioenergy Development, Carbon Markets	85	−10
Russia	2060	Energy Strategy 2035, Forest Carbon Program, Hydrogen Pilot Projects	19	+3

Sources: IEA (2024), UNFCCC (2024), World Bank (2024), BP Statistical Review (2024).

The European Union represents the most advanced and institutionalized example of a comprehensive climate strategy. The European Green Deal, introduced in 2019, sets a legally binding goal of achieving climate neutrality by 2050. Through its "Fit for 55" legislative package, the EU aims to reduce emissions by at least 55% by 2030 compared to 1990 levels. Central to this strategy is the Emissions Trading System (EU ETS), which creates a market for carbon allowances, incentivizing firms to decarbonize. Complementary initiatives such as the Just Transition Fund and the Circular Economy Action Plan ensure that environmental transformation also delivers social equity and economic resilience. The EU has demonstrated that climate action can drive innovation and competitiveness, with renewable energy now accounting for over 40% of total electricity generation.

In the United States, climate strategy has evolved through federal and state-level initiatives. After rejoining the Paris Agreement in 2021, the U.S. government launched the Inflation Reduction Act (IRA) in 2022, allocating more than $370 billion to clean energy subsidies, electric vehicle infrastructure, and carbon capture technology. The U.S. strategy focuses on leveraging market mechanisms and private sector investment to accelerate decarbonization. Despite political polarization, states such as California, New

York, and Massachusetts have pioneered aggressive renewable energy targets and emission caps, often exceeding federal standards.

China's climate policy plays a decisive role in the global effort. As the largest emitter of greenhouse gases, China's transition toward carbon neutrality by 2060 is critical to global success. The country's climate strategy emphasizes gradual decarbonization through economic restructuring and technological advancement. Its National Emissions Trading System (ETS) the largest in the world covers more than 2,000 companies in the power sector. At the same time, China continues to invest heavily in solar, wind, and electric vehicles, becoming the global leader in clean technology manufacturing. However, rising energy demand and reliance on coal remain major challenges that slow the overall pace of emissions reduction.

India, with its fast-growing population and economy, has adopted a distinctive approach to climate strategy that balances sustainability with development. The National Action Plan on Climate Change (NAPCC) and the National Solar Mission aim to expand renewable capacity to 500 GW by 2030 and increase the share of non-fossil energy to 50%. India's commitment to achieving net-zero emissions by 2070 reflects both ambition and realism, recognizing structural constraints such as poverty reduction and energy access. India's progress in solar deployment and energy efficiency programs demonstrates its growing leadership among developing nations in sustainable energy policy.

Japan's climate strategy is centered on innovation and technological leadership. The Green Growth Strategy and Hydrogen Roadmap outline Japan's pathway to net-zero emissions by 2050 through the large-scale deployment of hydrogen, carbon capture, and renewable power. Japan's emphasis on research and international cooperation has made it a key contributor to global clean technology development. Meanwhile, Brazil represents a unique case of a developing country with a predominantly renewable electricity mix mainly hydro and bioenergy. Its new policies on Amazon forest conservation and reforestation are vital for global carbon sequestration efforts.

Russia's approach to climate policy remains cautious but evolving. Although its emissions have declined slightly, the country's energy strategy still relies heavily on fossil fuels. Nonetheless, Russia has begun exploring carbon trading mechanisms, hydrogen pilot projects, and large-scale reforestation programs, which could gradually shift its energy balance toward greater sustainability.

While the diversity of national strategies reflects economic and political realities, the global picture reveals an underlying convergence: nearly every major economy now recognizes climate action as an integral component of development policy. However, the implementation gap persists. According to the UNFCCC, current national commitments (NDCs) are insufficient to limit warming to 1.5°C. If fully implemented, they would still lead to a 2.4–2.8°C temperature rise by 2100. Bridging this gap requires stronger

collaboration, enhanced financing, and technological exchange between developed and developing nations.

An emerging trend in climate governance is the integration of carbon pricing instruments and green finance mechanisms. As of 2024, more than 70 jurisdictions, representing 23% of global emissions, have implemented or are planning carbon pricing schemes. The total value of carbon markets surpassed $950 billion in 2023. Simultaneously, climate finance flows reached $1.4 trillion, but this remains below the $4 trillion annual investment required by 2030 to meet net-zero targets. Bridging this investment gap will determine the feasibility of global climate goals. Furthermore, adaptation and resilience have become critical components of national strategies. Extreme heat, floods, and droughts are already affecting vulnerable populations, particularly in developing countries. Nations are investing in climate-resilient infrastructure, sustainable agriculture, and early-warning systems. For example, Bangladesh's Climate Resilience Fund and Kenya's Drought Management Authority are pioneering adaptation models in the Global South, supported by international cooperation and climate finance. In this evolving landscape, technology transfer and innovation play a transformative role. The deployment of clean hydrogen, carbon capture and storage (CCS), and digital climate monitoring systems is accelerating global progress. International partnerships, such as the Mission Innovation initiative and the Clean Energy Ministerial, are enhancing collaboration and reducing the cost of emerging technologies. The future of global climate strategy will depend on how effectively these innovations can be scaled and shared equitably.

Conclusion. The climate strategies of the world's nations reveal a complex but converging global effort to confront the existential threat of climate change. While differences in ambition, capacity, and timing persist, the trajectory toward decarbonization is unmistakable. The transition from fossil fuels to renewables, the integration of carbon markets, and the expansion of green finance are transforming the foundations of global development. However, the pace of change must accelerate dramatically to meet the 1.5°C target. The success of global climate strategies will depend not only on national policies but also on collective commitment, solidarity, and innovation. The coming decade will be decisive: it will determine whether humanity can transform its climate ambitions into lasting sustainability for future generations.

REFERENCES

1. United Nations Framework Convention on Climate Change (UNFCCC). Nationally Determined Contributions Synthesis Report 2024. Bonn, 2024.
2. International Energy Agency (IEA). World Energy Outlook 2024. Paris, 2024.
3. World Bank. State and Trends of Carbon Pricing 2024. Washington, D.C., 2024.

4. Intergovernmental Panel on Climate Change (IPCC). Sixth Assessment Report – Mitigation of Climate Change.Geneva, 2023.
5. BloombergNEF. Energy Transition Investment Trends 2024. New York, 2024.
6. European Commission. European Green Deal Progress Report 2024. Brussels, 2024.
7. International Renewable Energy Agency (IRENA). World Energy Transitions Outlook 2024. Abu Dhabi, 2024.
8. United States Department of Energy. Inflation Reduction Act Implementation Report 2024. Washington, D.C., 2024.
9. China Ministry of Ecology and Environment. China National ETS Annual Report 2024. Beijing, 2024.
10. OECD. Climate Finance and Policy Review 2024. Paris, 2024.