



The Role of the Paris Agreement in Influencing Climate Policy in Developing vs. Developed Countries: A Comparative Study

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Abstract: The Paris Agreement, adopted under the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, is a landmark international treaty aimed at limiting global temperature rise to well below 2°C above pre-industrial levels, while pursuing efforts to restrict warming to 1.5°C. Unlike earlier climate agreements, it follows a flexible, bottom-up approach through Nationally Determined Contributions (NDCs), allowing countries to set climate targets based on their national circumstances and capacities. This study examines the impact of the Paris Agreement on climate policy in both developed and developing countries through a comparative analysis of Germany and the United States alongside India and Brazil. The analysis considers factors such as economic capacity, historical responsibility for greenhouse gas emissions, political commitment, technological advancement, and implementation challenges. Developed countries have generally emphasized ambitious emission reduction targets, investments in clean technologies, and decarbonization strategies. In contrast, developing countries have focused on climate adaptation, renewable energy expansion, and balancing environmental goals with economic growth and poverty alleviation. The study highlights persistent challenges related to climate finance, technology transfer, and institutional capacity, which constrain developing countries' ability to meet their climate commitments. Strengthened international cooperation, equitable support mechanisms, and greater accountability are therefore essential for ensuring the long-term effectiveness of the Paris Agreement.

Keywords: Paris Agreement, Climate Policy • Nationally Determined Contributions (NDCs) • Climate Justice • Global Warming • Sustainability

Introduction

Climate change is an existential threat that transcends nations, socio-economic divides and political ideologies. In recent decades, the world has moved from general principles of action on climate change to legally binding commitments to reduce greenhouse gas emissions. The 2015 Paris Agreement represented a watershed moment in international climate diplomacy, signifying the shift from a top-down regulatory approach to a bottom-up approach based on national voluntary pledges called Nationally Determined Contributions (NDCs). (Rajamani 2016; UNFCCC 2015). The design of the Paris Agreement allows for the protection of national sovereignty while at the same time

allowing for greater collective ambition at the global level.

The Paris Agreement is unique in that it includes an acknowledgment of “common but differentiated responsibilities and respective capabilities” (CBDR-RC). This acknowledgement takes into account the historical contributions to greenhouse gas emissions, as well as the different levels of development between nations. The ways in which developed and developing nations interpret and commit to the CBDR-RC principle can vary significantly. (Gupta 2014; Harris 2011). Therefore, developed countries, with more financial and technological capabilities, are expected to lead in reducing emissions, whereas developing countries are



often expected to mitigate the impacts of climate change and, at the same time, deal with issues such as poverty, economic development and energy access.

The purpose of this research will be to determine whether and how climate policy at both the national and local levels has been shaped by the Paris Agreement and is being implemented by countries categorized as developed and developing. To achieve this end, the study will use comparative case studies of the United States and Germany (developed nations) versus India and Brazil (developing nations) to evaluate each country's level of ambition in relation to their respective commitments to the Agreement, the degree to which they have developed and implemented relevant laws and policies, and the barriers they face to fulfilling their obligations. The research also provides a critical examination of how the provision of climate finance, transfer of technology, and the development of global accountability mechanisms are all related to climate change policy outcomes. Ultimately, this study will assess whether the Paris Agreement is facilitating the convergence of all countries in the fight against climate change or perpetuating the current disparities that exist among nations in terms of their abilities to respond and resources to do so.

The Paris Agreement: Framework and Principles

The Paris Agreement is an international treaty on climate change that was adopted on December 12, 2015, at the 21st Conference of the Parties (COP21) held in Paris as part of the United Nations Framework Convention on Climate Change (UNFCCC). The Agreement came into force on November 4, 2016, and represents an international commitment by all countries to work together to reduce global greenhouse gas emissions and to improve their ability to adapt to the effects of climate change as part of an effort to achieve sustainable development, particularly for developing countries. The Agreement has a flexible legal

structure and contains an ambitious political framework to provide a basis for countries to work towards a common goal in the fight against climate change while also providing opportunities for those affected to participate in the process based on equitable and transparent principles. (UNFCCC 2015; Bodansky et al 2017).

Objectives

1. Analyse how the Paris Agreement has influenced the formulation of climate policies in both Developed countries and Developing countries.
2. Examine the similarities and differences between the climate policy responses of Germany and the US compared to those of India and Brazil.
3. Assess the role of climate finance, technology transfer, and institutional capacity in implementing countries' commitments under the Paris Agreement.
4. Identify key challenges and opportunities for achieving climate goals under the Paris Agreement.

Methodology

This study utilized qualitative and comparative research strategies. The primary source of data for this study was secondary sources of data from other researchers (academic publications and peer-reviewed journal articles) and government documents, on climate policies, from many different organizations including the UNFCCC, IPCC, and IEA. The analysis utilized a comparative case study evaluation of the development of climate policy in both developed nations (Germany and the US) and developing nations (India and Brazil) to evaluate how the Paris Agreement will affect national climate policies. The data were subsequently analysed in both descriptive and comparative ways to provide an understanding of the impact the Paris Agreement will have on national climate policy development.



Observation

Graphical Analysis: Comparative Emissions and the Global Climate Burden

Based on the most recent data available for 2023, the top six carbon dioxide (CO₂) emitting countries are as follows:

Table 1 : CO₂ emissions from energy production.

Rank	Country	CO ₂ Emissions (Million Metric Tons)	Share of Global Emissions
1	China	12,603.5	31.2%
2	United States	5,130.1	12.7%
3	India	3,121.5	7.7%
4	Russia	2,176.1	5.4%
5	Japan	1,038.6	2.6%
6	Iran	937.0	2.3%

The Table 1 show both the country specific and development-specific global carbon dioxide (CO₂) emissions distribution in 2023, helping to set the context for how the Paris Agreement is being implemented and the ultimate outcomes across developed and developing countries.

The first figure indicates that China is the single largest emitter of CO₂ among the top six emitters accounting for over thirty percent of emissions emitted among those six countries. It is followed by the US (~13%), India (~8%) and Russia, Japan, and Iran. Collectively, these six countries represent a major portion of global CO₂ emissions and must play an important role in future global mitigation efforts.

A particularly pronounced disparity is manifest in the exceedingly greater amounts of emissions produced by developing nations such as China and India than by developed nations. Their economic growth has been rapid, leading to an increase in energy consumption, which is evident in the data above. However, the implications from the data should also be contextualized within an additional framework of historical emissions and per capita responsibility of developed nations which continues to be a greater percentage than developing countries.

Another approach would be to group all nations into two categories, and to then average all of the emissions by category. This allows the emissions from the largest emitters to be represented graphically in a manner that is distinctly different for developing and developed nations. The second figure illustrates this contrast: approximately 75% of total emissions from these five largest emitters are from developing countries (China, India, Russia and Iran), and only 25% are from developed countries (United States and Japan). This disparity represents the inherent tension between developing countries and developed countries with regard to climate negotiations and implementation of climate change programs under the Paris Agreement. Although developing nations currently emit more greenhouse gases than developed nations, they emit significantly lower amounts per capita, have limited access to technology and have historically contributed far less than developed nations. In this regard, "common but differentiated responsibilities," as outlined in the Paris Agreement, require developed countries to support developing countries through financial assistance, transfer of technology and capacity-building programs.

Implications for the Paris Agreement

The Charts support evidence-based assertions that actual, meaningful progress related to the



Paris Agreement must include engagement by both those developed and those developing, although differentiated means of engagement will be in order. Developed countries should lead in their efforts via deep cuts to emissions, as well as provide financial assistance to developing countries so they can pursue low-carbon development without detriment to their advancement in eradicating poverty and enhancing their economies. Analyses illustrated the importance of equity and fairness in climate change policies and how differentiation on capability bases will be an

important consideration. Additionally, the analyses illustrate that while the majority of overall emissions are now attributed to developing nations, these developing nations' ability to effectively transition will depend greatly on how the world cooperates together and its commitment to the framework of the Paris Agreement.

Comparative Analysis of Climate Policy Responses

The comparison of climate policy dynamics of developed and developing countries is presented in Table 2

Table 2: Developed vs. Developing Countries – Comparison of Climate Policy Dynamics

Dimension	Developed Countries	Developing Countries
Ambition	High emissions reduction targets	Moderate, intensity-based or sectoral targets
Economic Capability	Strong, well-funded climate programs	Limited by development priorities and resources
Climate Finance Role	Providers of international finance	Recipients of climate finance
Technology & Innovation	Leaders in clean tech R&D and deployment	Limited access; rely on tech transfer
Implementation Barriers	Political resistance, industry lobbying	Institutional weakness, infrastructure deficits
Monitoring & Transparency	Robust MRV systems	Developing MRV systems; require capacity-building
Policy Instruments	Carbon pricing, subsidies for renewables	Renewable energy targets, afforestation programs
International Perception	Expected to lead global efforts	Advocate for equity and climate justice

Climate policies vary greatly depending on whether a country is developed or developing. While developed countries tend to set ambitious emissions reduction targets and have the requisite amount of fiscal resources, cutting-edge technologies, and comprehensive monitoring processes to back them up, they also provide the majority of international climate finance and are expected to act as world leaders in taking action against climate change. Conversely, most developing countries are establishing less ambitious, development-oriented climate goals because of financial and institutional instabilities. As a result, developing countries rely heavily on international climate finance and transfer of technologies from developed countries, as well as dealing with issues like an underdeveloped infrastructure and lack of administrative capacity. Therefore, developing countries have tended to prioritize issues of "equity," "climate justice," and "capacity-building," as they relate

to climate change negotiations at an international level.

Developed Countries: Case Study-Germany

Germany has been positioned historically as a climate leader in both Europe and around the globe. The Energiewende (energy transition) policy which was launched in the early part of the 2000's represents a fundamental change from fossil fuel and nuclear energy sources to renewable energy sources. Following the adoption of the Paris Agreement in 2015, Germany also began to update its climate policy to reflect Germany's commitment under the Paris Agreement. (IEA, 2023)

Germany's current Nationally Determined Contribution (NDC) commits to at least a 65% reduction in greenhouse gas (GHG) emissions by 2030 relative to 1990 and achieving climate neutrality by 2045. Germany has established a comprehensive policy mix to meet these targets including:



- **Expanding Renewable Energy:** As of December 2023, over 50% of electrical power generated in Germany comes from renewable sources (primarily from wind and solar energy). The Renewable Energy Sources Act (EEG), which provides financial incentives and a priority access to the electric grid for renewable energy sources, has been a significant contributor to this expansion. (Climate Action Tracker, 2024; IEA, 2023).
- **Implementing Carbon Pricing:** Germany established a national carbon pricing mechanism in 2021 for the transportation and heating sectors which supplements the EU Emissions Trading System (EU ETS).
- **Investing in Green Technology:** The government of Germany has made available billions of euros in funding for electric transportation, developing hydrogen infrastructure and advancing climate-neutral industries.

Although Germany has made advances, it has significant challenges to overcome. As a result of the phase-out of nuclear energy, Germany is now heavily reliant on coal for electricity generation, so coal-fired power plants will continue to be an important energy source in the near term. Additionally, industrial emissions continue to be a significant concern for Germany. As Germany looks to decarbonise its economy, balancing economic competitiveness with decarbonisation will be one of Germany's most important policy tensions moving forward.

Case Study: The United States

The United States has a more complex path to date than Germany. As one of the world's top two emitters, U.S. climate policy has swung back and forth between being an engaged player internationally and withdrawing from international climate agreements based upon the leadership of the sitting U.S. President. For example, the Trump Administration formally withdrew from the Paris Agreement in 2020, but President Biden rejoined the agreement in 2021 and pledged to the world that the U.S.

would meet its commitment to reduce U.S. (Climate Action Tracker 2024). greenhouse gas (GHG) emissions by 50% to 52% by 2030, as compared to 2005 levels, through the submission of the U.S.'s nationally determined contribution (NDC) to the Paris Agreement.

The United States has adopted several major policy initiatives designed to help enable the U.S. to meet its NDC:

- **The Inflation Reduction Act (IRA) of 2022:** This transformative piece of legislation represents more than \$369 billion in investments for climate and clean energy and represents the largest investment in U.S. history for these policy areas. The IRA includes funding for clean energy generation, electric vehicle (EV) purchases, and tax credits for various decarbonisation technologies. (Climate Action Tracker 2024).
- **Methane Emissions Regulation:** The U.S. Environmental Protection Agency (EPA) has developed and proposed a number of new regulations affecting the oil and gas sector, designed to reduce methane emissions from that sector.
- **Multi-Level Governance:** In the absence of consistent federal-level mandates, numerous state initiatives are taking the lead in helping to implement climate action plans. Examples of state-level actions that provide significant contributions towards meeting U.S. long-term climate goals include California's cap-and-trade system.

Nonetheless, there is internal political division and legal challenges within the US that are threatening the long-term viability of climate policies. The manner in which climate action is pursued by Germany is to achieve a point of agreement between stakeholders, whereas this does not occur with the USA such that climate action in the USA varies by political election cycle and will therefore create inconsistencies with past adoption as well as impact the level of investor confidence with regard to climate policy in the USA. In conclusion, although both the USA and Germany developed ambitious climate targets post-Paris



Agreement; Germany has shown greater consistency of policy than does the USA and has had the ability to pursue financially viable climate actions by undertaking fragmented pieces of action against an overall target. (Nature 2022)

Developing Countries : Case Study- India

India is the third highest greenhouse gas emitting country in the world and is also one of the fastest growing major economies in the world and this creates India with a unique model of climate policy that serves to balance economic development with environmental responsibility. India's revised NDC for 2022 as submitted under the Paris Agreement reflects both ambition and pragmatism; it includes a commitment to:

- Reduce GHG emissions from the production of its GDP by 45% from 2005 levels by 2030.
- Achieve at least 50% cumulative capacity of electricity generated through non-fossil fuel sources by 2030.
- Develop additional carbon sink through afforestation and sustainable forest management initiatives.

In India, common but differentiated responsibilities and respective capabilities (CBDR-RC) are at the heart of the country's climate policy. This is because India has low per capita annual GHGE, and as such is focused on developing those (such as ending poverty and fostering energy access), while at the same time taking into consideration how climate action will relate to their larger sustainable development framework. For example, India has made substantive strides in solar energy, with tools like the International Solar Alliance and the Pradhan Mantri KUSUM scheme identifying India as a top competitor in the international solar market. The overarching commitment to achieving 500 GW of renewable energy by 2030 illustrates the changing face of how energy is produced. However, India is also dealing with structural issues (such as reliance on fossil fuels—primarily coal), the ability to raise sufficient capital, and competing social/economic

priorities, so additional financing of climate change mitigation and adaptation approaches, along with technology transfer for clean technologies, will be critical in advancing India's ability to mitigate and adapt to the changing climate. (Government of India 2022).

Case Study: Brazil

Brazil's climate commitments are centred on conservation of natural forests, land use, and agricultural practices based on the country's primary ecological and economic context. Brazil's NDC has three main targets (NDC). (WRI 2023; Climate Action Tracker 2024).

- 1) Reduce GHG emissions by a minimum of 43% below 2005 levels by 2030;
- 2) End all illegal deforestation by 2028; and
- 3) Increase the share of renewable energy use (including low carbon agriculture).

The Amazon rainforest of Brazil is both a vital source of carbon storage for the entire globe and the epicentre for international concern as a result of rapidly increasing deforestation. The Paris Agreement is encouraging the Brazilian government to re-establish enforcement of environmental legislation and link forest conservation to the global climate finance mechanism of REDD (Reducing Emissions from Deforestation and Forest Degradation).

With President Lula da Silva at the helm of Brazil once again, the country has recommitted itself to meeting its Nationally Determined Contribution (NDC) pledges, and President Lula is looking at ways to reverse Brazil's history of environmental deregulation. Some of the strategies being pursued to accomplish this goal include investments in biofuels and hydropower as well as expanding the production of sustainably raised cattle. However, there remain significant challenges. The deterioration of law and order within the Amazon, political instability, and the existence of large socio-economic discrepancies within Brazil continue to impact the successful implementation of policy. Likewise, the challenge of ensuring a balance between the interests of agribusiness and the interests of



conservation remains an important policy dilemma facing the Brazilian government. The experiences of both India and Brazil serve as excellent examples of how developing nations can align climate commitments with their national development strategies. (International Renewable Energy Agency (IRENA), 2023) The progress made by both countries as demonstrated by their accomplishments under the Paris Agreement showcases the success of these nations in addressing climate issues but highlights the necessity for developing nations to receive international support through financing and the transfer of technology and

institutional capacity-building.

The Fig 1 illustrates a comparison of greenhouse gases (GHG) produced by four significant countries (United States, Germany, India and Brazil) throughout the time period since the signing of Kyoto Protocol (1997) until 2024. The amount of emissions is measured in gigatonnes of CO₂ equivalent (GtCO₂e), and the data used to compile this information comes from trusted sources like the Global Carbon Project (2024), UNFCCC National Inventory Reports and World Resources Institute (WRI).

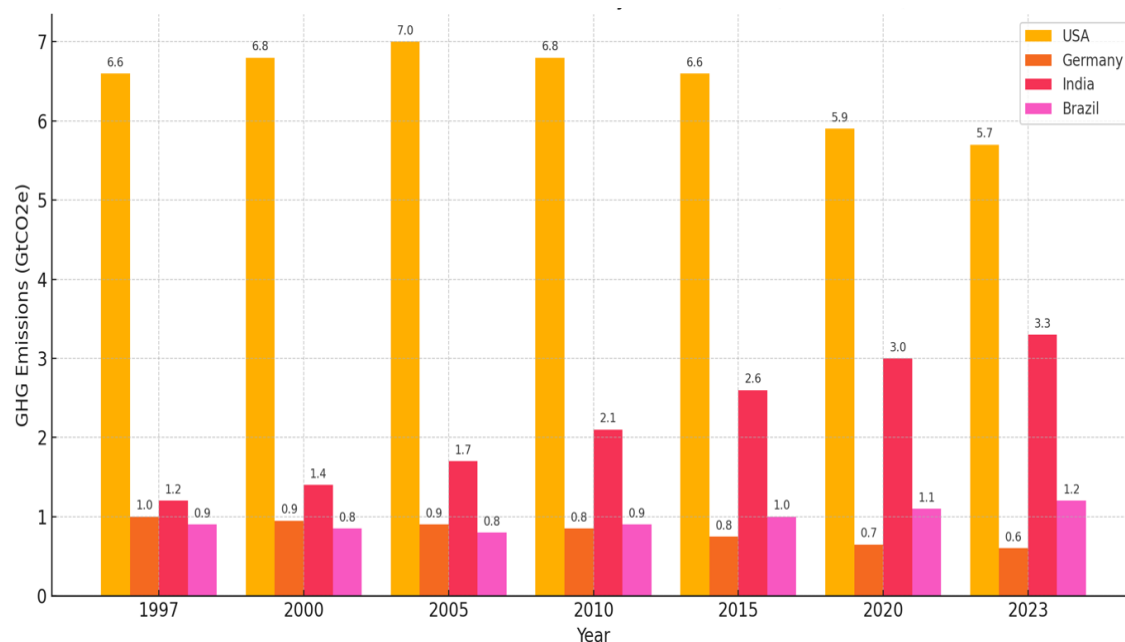


Fig 1: GHG Emissions of USA, Germany, India, Brazil(1997-2023) The United States had the highest GHG emissions during the entire time, although they decreased from approximately 7.0 GtCO₂e in 1997 to around 5.7 GtCO₂e by 2024. There are a number of reasons for this decrease: changes in governmental policies regarding energy use, shifts toward clean energy sources and greater energy efficiency, particularly since 2010. Germany has reduced its GHG emissions considerably during the same time frame, despite being one of the most significant industrial nations in the world. GHG emissions decreased from 1.0 GtCO₂e to 0.6 GtCO₂e, indicating that Germany's policies aimed at improving sources of renewable energy and enhancing energy efficiency have been effective. (Hohne et al 2014). Conversely, India has seen substantial increases in GHG emissions - from 1.2 GtCO₂e to 3.3 GtCO₂e, the increase primarily resulting from the growing Indian economy and industry and rising demand for energy. While increasing at such a high rate, India is still among the nations with the lowest per capita GHG emission level.

Discussion

Contrasts and Commonalities



Ambition vs. Capability

There is a fundamental difference between developed and developing countries in where they are on a spectrum of ambition versus capacity for climate mitigation. The U.S. and Germany and the other EU countries have set high targets for reduction of emissions. The new NDCs reflect aggressive carbon neutrality targets and renewable energy development targets for developed countries. They also have historically contributed the vast majority of historical GHGs, established mature institutional capacity, and have strong economies.

On the other hand, developing countries, such as Brazil and India, have to deal with both climate change and meeting their development goals, which include poverty reduction, industrialization, and energy access. Therefore, their climate actions focus mainly on reducing their emissions intensity, rather than absolute levels, since they are entitled to equitable growth through "common but differentiated responsibilities." Consequently, although developing countries have a substantial amount of ambition, their lack of capacity limits their ability to achieve those ambitions, which necessitates two separate pathways for the implementation of global climate governance.

Climate Finance

Climate finance is one of the most important aspects of the Paris Agreement, particularly with respect to developed countries' commitment to providing \$100 billion per year by 2020 in support of developing countries' efforts to reduce their carbon pollution and adapt to climate change. Unfortunately, this goal has not been fully met. According to the OECD, encountered the shortfall in climate finance mobilization has negatively impacted both the trust of vulnerable countries and their ability to effectively deliver on ambitious climate action. (IPCC 2021; The Economist 2023).

The lack of predictable and accessible sources of funding creates an even greater disparity

between how ambitious these countries are and their ability to implement those ambitions. Consequently, many climate projects in Africa, South Asia and Latin America are either severely underfunded or have had their delivery delayed as a result of ineffective financial instruments and bureaucratic obstacles. This gap in finance is one of the primary reasons why globally, adaptation has not caught up to mitigation.

Technology and Innovation

Another area where there are stark differences is that of Clean Technology. Developed countries are leading the way with innovation, research, and implementation of clean technologies such as: green hydrogen; carbon capture; and smart grid technology. The industrial and academic ecosystem supports the large scale development and global exportation of low-carbon technologies. (Rajamani 2016; IPCC 2021).

Developing countries on the other hand, face challenges in terms of their ability to access technology, primarily as a function of the high cost of these technologies, as well as the limitations associated with Intellectual Property Rights. Although Article 10 of the Paris Agreement highlights the need for technology transfer, it has not been as effective as anticipated. Some South-South cooperation is developing (e.g., India and Africa's solar initiatives); however, addressing the Global Technology Divide remains an urgent priority for the world's nations.

Challenges of Implementation

There are implementation challenges for both Developed and Developing Countries, but they differ from each other. Developed countries experience implementation challenges related to political cycles, lobbying of fossil fuels, and policy reversals, such as the Trump Administration's actions in the US to mitigate impacts from Climate Change. On the other hand, Developing countries face implementation challenges due to weak state institutions, lack of technical capability to implement, and a shortfall in infrastructure



(especially in rural areas and vulnerable communities). While the nature of the barriers (i.e., political inertia versus structural constraints) between the two country groups is different, the result is often the same too (i.e., delayed or suboptimal implementation of Climate Change commitments).

Accountability and Transparency

In order to build global trust, it is imperative that Credible Transparency exists under Article 13 of the Paris Agreement. Developed countries generally, have established Monitoring Reporting Verification (MRV) systems to track Climate Change impacts. They have regularly updated and more Accurate National Inventories (NIs) and tracking mechanisms to monitor the progress towards their Climate Change goals.

Although Developing countries are improving their Monitoring and Reporting efforts, they often have inadequate institutional infrastructure and data systems to Agree to the more Rigid Transparency Standards. Capacity Development through International Climate Funds is critical to develop Compliance and enhance Global Climate Governance.

Suggestions for Future Action

(i) A stronger and more equitable global response to climate change requires developed countries to fulfil and expand their financial commitments under the Paris Agreement. The long-standing pledge to mobilize at least US\$100 billion annually for climate action in developing countries must be delivered in a timely, predictable, and transparent manner. Adequate climate finance is essential to support mitigation, adaptation, resilience-building, and loss-and-damage responses, particularly in the most climate-vulnerable nations. Clear accountability mechanisms are needed to ensure that financial commitments translate into tangible outcomes on the ground.

(ii) Bridging the technological divide between developed and developing countries is critical for accelerating global climate action. Greater access to clean and low-carbon technologies can help developing nations transition towards

sustainable development pathways without compromising economic growth. International mechanisms should encourage collaborative research, open innovation, and technology-sharing partnerships while addressing barriers created by intellectual property regimes. Enhanced technology transfer in sectors such as renewable energy, agriculture, transportation, and industry will significantly strengthen climate mitigation and adaptation efforts worldwide.

(iii) Many developing countries face challenges in implementing climate policies due to limited technical expertise, institutional weaknesses, and inadequate infrastructure. Strengthening capacity through international cooperation is therefore essential. Training programmes, policy guidance, technical assistance, and institutional support can enhance the ability of governments and local agencies to design, implement, monitor, and report climate actions effectively. Building long-term institutional capacity will improve climate governance and ensure the successful achievement of national climate commitments.

(iv) The effectiveness of the Paris Agreement depends on robust accountability and transparency mechanisms. A comprehensive Measurement, Reporting, and Verification (MRV) framework should be supported by peer-review processes, accessible climate data systems, and independent assessments. Such mechanisms can enhance trust, track progress, and encourage countries to meet their commitments. Climate diplomacy should emphasize cooperation, dialogue, and mutual support rather than punitive enforcement measures, thereby preserving global solidarity and collective responsibility.

(v) Cooperation among developing countries offers significant opportunities for sharing knowledge, technical expertise, and region-specific innovations. Initiatives such as the International Solar Alliance and regional adaptation networks demonstrate the value of collaborative action. Ultimately, the future of the Paris Agreement rests on shared



responsibility, equitable access to finance and technology, strong governance, and sustained political commitment. By addressing existing inequalities and fostering genuine international cooperation, the Agreement can become a transformative instrument for achieving global climate resilience and sustainability.

Conclusion

The Paris Agreement represents a landmark achievement in global climate governance, establishing a flexible yet comprehensive framework that encourages countries to strengthen climate action through Nationally Determined Contributions (NDCs) while promoting transparency, accountability, and progressively increasing ambition (Bodansky et al., 2017; Gupta, 2014). By allowing nations to define their own climate targets, the Agreement accommodates diverse economic and developmental contexts. Despite its significance, substantial disparities between developed and developing countries continue to challenge its implementation. Developed nations possess greater financial resources, technological capabilities, and institutional capacity to pursue ambitious mitigation strategies, largely due to their historical economic advantages and contributions to greenhouse gas emissions. In contrast, developing countries must simultaneously address economic development, poverty reduction, and climate vulnerability. Consequently, climate justice and equity remain central to effective global climate action.

Persistent shortfalls in climate finance, including delays in meeting the pledged US\$100 billion annually for developing countries, have weakened trust and slowed progress in the Global South. Limited technology transfer and inadequate capacity-building initiatives further constrain implementation efforts. Nevertheless, several developing countries have demonstrated notable leadership through innovative and ambitious climate policies despite resource limitations. The long-term success of the Paris

Agreement depends on strengthened international cooperation, equitable financial support, enhanced technology sharing, and sustained political commitment. Achieving these goals will be essential for fostering an inclusive and effective global response to climate change.

References

- Bodansky D, Brunnée J and Rajamani L (2017). *International Climate Change Law*. Oxford University Press, Oxford.
- Climate Action Tracker (2024). Country Assessments: Germany, United States, India and Brazil. Available at: <https://climateactiontracker.org>
- Government of India (2022). India's Updated Nationally Determined Contribution to the UNFCCC. *Ministry of Environment, Forest and Climate Change, New Delhi*.
- Gupta J (2014). *The History of Global Climate Governance*. Cambridge University Press, Cambridge.
- Harris PG (2011). The Politics of Climate Change: Environmental Dynamics in International Affairs. *Routledge, London*.
- Hohne N, den Elzen M and Escalante D (2014). Regional GHG Reduction Targets Based on Effort Sharing: A Comparison of Studies. *Climate Policy*, 14(1): 122–147.
- Intergovernmental Panel on Climate Change (IPCC) (2021). *Climate Change 2021: Sixth Assessment Report (AR6), Summary for Policymakers*. IPCC, Geneva.
- International Energy Agency (IEA) (2023). *Germany Energy Profile*. International Energy Agency, Paris.
- International Renewable Energy Agency (IRENA) (2023). *Renewable Capacity Statistics 2023*. IRENA, Abu Dhabi.
- Nature (2022). Climate Policy in Emerging Economies: The Indian Dilemma. *Nature*, 607(7917): 448–450.
- Rajamani L (2016). The 2015 Paris Agreement: Interplay Between Hard, Soft



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- and Non-Obligations. *Journal of Environmental Law*, 28(2): 337–358.
- The Economist (2023). Climate Finance and the Global South: A Broken Promise. *The Economist*, London.
- United Nations Framework Convention on Climate Change (UNFCCC) (2015). The Paris Agreement. *UNFCCC Secretariat*, Bonn.
- World Resources Institute (WRI) (2023). *Brazil Climate Facts and NDC Tracker*. Washington, D.C.