



## Speaking for the vulnerable, acting as a leader: India and the politics of climate security

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### Abstract

Climate change has moved beyond the realm of environmental policy to reshape global security, economic governance, and diplomatic strategy. The concept of climate security captures how extreme weather events, water scarcity, heat stress, glacial retreat, and ecological degradation increasingly threaten livelihoods, social stability, and national development. For India, these pressures are deeply tangible. As one of the world's most climate-vulnerable countries with vast coastlines, Himalayan ecosystems, agrarian dependencies and densely populated cities, India confronts escalating climate risks even as it pursues rapid economic growth and poverty alleviation.

This paper examines India's evolving role in the politics of climate security highlighting its dual identity as both a vulnerable state and an emerging global leader. It analyses India's domestic climate risks, policy architecture, renewable energy transition and adaptive governance frameworks alongside its expanding international engagement. Particular attention is given to institutional innovations such as the International Solar Alliance and the Coalition for Disaster Resilient Infrastructure, which reflect India's effort to translate normative commitments into practical global initiatives.

The paper argues that India's climate politics cannot be understood neither as merely defensive which is aimed at preserving developmental space nor as simply reactive to environmental shocks. Rather, India has cultivated a calibrated form of climate leadership grounded in equity, climate justice and the principle of Common but Differentiated Responsibilities while simultaneously advancing ambitious national targets in renewable energy and sustainability. By balancing developmental imperatives with global responsibility, India articulates a distinctive model of climate agency that links vulnerability with strategic leadership in an era of profound ecological and geopolitical transition.

**Keywords:** Climate security, Common but Differentiated Responsibilities (CBDR), renewable energy transition, sustainable development, International Solar Alliance (ISA), Coalition for Disaster Resilient Infrastructure (CDRI), environmental diplomacy, adaptive governance, global climate leadership, ecological vulnerability, energy transition

### Introduction

#### Climate Security in the Contemporary World Order

The twenty-first century has witnessed a profound transformation in the understanding of security. Traditionally associated with military threats, territorial sovereignty, and geopolitical rivalry, the concept of security has expanded to include non-traditional challenges such as pandemics, cyber threats, and most significantly, climate change. Today, climate change is widely recognized as a "threat multiplier," exacerbating existing socio-economic inequalities, intensifying resource scarcity, and contributing to instability across regions. In this context, the concept of climate security has emerged as a critical framework for understanding how environmental changes intersect with human vulnerability, economic systems, and political stability.

Climate security is not merely about environmental degradation; it is about survival, justice, and the future of global order. Rising temperatures, erratic weather patterns, and extreme climatic events disrupt food production, strain water resources, and trigger displacement, particularly in developing regions. These impacts are unevenly distributed, disproportionately affecting countries that have contributed the least to global greenhouse gas emissions. This imbalance has transformed climate change into a deeply political issue, raising questions of equity, responsibility, and global governance.

Within this evolving discourse, India occupies a uniquely complex position. As one of the world's largest and fastest-growing economies, India is both a significant contributor to

global emissions in absolute terms and a country with relatively low per capita emissions. More importantly, it is among the most climate-vulnerable nations, facing increasing risks from heatwaves, floods, cyclones, and water stress. This dual identity—as both a vulnerable state and an emerging global power has shaped India's approach to climate security.

India's engagement with climate politics is neither purely defensive nor purely strategic. Instead, it reflects a careful balancing act between developmental priorities and environmental responsibilities. On one hand, India emphasizes its right to economic growth and poverty eradication. On the other, it has increasingly taken on a leadership role in global climate governance, advocating for climate justice while implementing ambitious domestic policies.

The central argument of this paper is that India has redefined climate leadership by combining normative advocacy with practical action. It speaks for the vulnerable both within its borders and across the Global South while acting as a leader through institutional innovation, renewable energy expansion, and multilateral diplomacy. This dual role enables India to bridge the gap between developed and developing countries, positioning itself as a key factor in shaping the future of climate security.

#### Review of the Literature

The discourse on climate security has evolved significantly over the past two decades, with scholars and institutions increasingly recognising the interconnections between

environmental change, human security, and global politics. Early works on environmental security primarily focused on resource scarcity and conflict, but contemporary literature adopts a broader perspective, encompassing climate-induced risks such as displacement, food insecurity, and socio-economic instability.

The Intergovernmental Panel on Climate Change has played a foundational role in shaping the scientific and policy discourse on climate change. Its assessment reports highlight the concept of climate change as a “threat multiplier,” emphasising its impact on vulnerable populations and developing countries. These reports provide the empirical basis for understanding climate security and underscore the urgency of global action.

Scholars such as Ole Waever and Barry Buzan have contributed to the theoretical expansion of security studies through the Copenhagen School, which broadens the concept of security beyond military threats. Their work provides a conceptual foundation for analysing climate change within the security framework.

From a political economy perspective, authors like Nicholas Stern emphasise the economic implications of climate change, arguing that early action is more cost-effective than delayed responses. The Stern Review on the Economics of Climate Change remains a seminal work in this regard, linking climate policy with economic development.

In the context of India, scholars have examined the country’s dual identity as both a developing nation and an emerging power. Studies highlight India’s emphasis on climate justice and the principle of equity, particularly in international negotiations. Research also focuses on India’s renewable energy transition, noting its rapid expansion in solar and wind capacity. Policy-oriented literature highlights India’s leadership in initiatives such as the International Solar Alliance, which is often cited as an example of South-South cooperation. Similarly, the Coalition for Disaster Resilient Infrastructure is recognised for its focus on adaptation and resilience. Recent studies also examine India’s role in global forums, particularly during the G20 Summit 2023, where it emphasized inclusive development and climate action. These analyses highlight India’s emerging role as a bridge between developed and developing countries.

### **Aim of the Study**

The primary aim of this study is to critically examine India’s evolving role in the politics of climate security with a particular focus on how it simultaneously represents the interests of vulnerable populations and asserts itself as a global leader in climate governance. The study seeks to analyse the intersection between climate vulnerability, developmental priorities, and strategic leadership in India’s domestic and international climate policies. It aims to highlight how India’s approach transcends traditional state-centric frameworks by integrating equity, sustainability and resilience into its climate strategy thereby contributing to a more inclusive and balanced global climate order.

### **Objectives of the Study**

The study is guided by the following key objectives:

- To conceptualise and analyse the idea of climate security and its relevance in contemporary global politics.
- To examine India’s climate vulnerability and its implications for national security, economic stability, and social resilience.

- To evaluate India’s domestic climate policies, particularly in the areas of renewable energy transition, disaster resilience, and adaptive governance.
- To explore case-based evidence from Indian states and cities to understand how climate policies are implemented at the ground level.
- To critically evaluate the challenges and limitations of India’s climate strategy, including issues related to energy dependence, financing, and governance.
- To suggest future pathways for strengthening India’s role in climate security and global environmental governance.

### **Research Methodology**

This study adopts a qualitative and analytical research methodology to examine India’s role in the politics of climate security. The research is primarily based on secondary sources, including government reports, policy documents, academic journals, and publications from international organisations such as the Intergovernmental Panel on Climate Change. These sources provide a comprehensive foundation for analysing climate policies, vulnerabilities, and global engagements.

The study follows a descriptive-analytical approach, combining conceptual analysis of climate security with an evaluation of India’s domestic and international strategies. A multi-theoretical framework including realism, liberal institutionalism, and constructivism is used to interpret India’s climate actions from different perspectives.

Additionally, a case study method is employed to illustrate practical implementation, with examples such as disaster resilience in Odisha and India’s leadership during the G20 Summit 2023. This approach helps bridge the gap between theory and practice.

### **Conceptualising Climate Security – From Environmental Crisis to Political Challenge**

The concept of climate security has gained prominence in recent decades as the impacts of climate change have become more visible and severe. At its core, climate security refers to the ways in which climate-related changes threaten human well-being, economic stability, and political order. Unlike traditional security threats, which are often immediate and localized, climate threats are long-term, transboundary, and deeply interconnected with development processes.

One of the defining features of climate security is its role as a threat multiplier. Climate change does not create new vulnerabilities in isolation; rather, it intensifies existing ones. For instance, in regions already experiencing poverty and resource scarcity, climate-induced disruptions can exacerbate food insecurity and trigger social unrest. Similarly, water shortages caused by changing rainfall patterns can lead to conflicts over access to resources.

Another key dimension of climate security is its human-centric nature. Traditional security frameworks focus on the protection of states, but climate security shifts the focus to individuals and communities. It recognizes that the most severe impacts of climate change are felt by marginalized populations, including small farmers, coastal communities, and urban poor. This shift has significant implications for global politics. It challenges the dominance of state-centric approaches and highlights the need for inclusive and equitable solutions. It also raises questions about responsibility and accountability, particularly in relation to historical emissions.

India has played a crucial role in shaping the discourse on climate security by emphasizing its developmental dimensions. It consistently argues that climate change cannot be addressed in isolation from issues such as poverty, inequality, and access to resources. This perspective is reflected in its advocacy for the principle of Common but Differentiated Responsibilities (CBDR), which recognizes that countries have different capacities and responsibilities in addressing climate change. India's approach to climate security thus integrates environmental sustainability with social justice, highlighting the need for a holistic and inclusive framework.

### **Theoretical Perspectives – Understanding India's Climate Strategy**

India's approach to climate security can be better understood through the lens of international relations theories. Each theoretical framework offers unique insights into the motivations and implications of India's actions.

From a Realist perspective, states prioritize national interests, including economic growth and energy security. India's continued reliance on coal, despite its commitment to renewable energy, reflects these concerns. Coal remains a reliable and affordable source of energy, essential for supporting industrial growth and meeting the needs of a growing population. At the same time, India uses climate diplomacy as a tool to enhance its global influence, positioning itself as a key player in international negotiations.

Liberal Institutionalism, on the other hand, emphasizes the role of cooperation and international institutions. India's leadership in initiatives such as the International Solar Alliance demonstrates its commitment to collective action. By promoting solar energy adoption in developing countries, India contributes to global climate solutions while strengthening its diplomatic ties. Similarly, the Coalition for Disaster Resilient Infrastructure reflects India's focus on building resilience against climate impacts. These initiatives highlight the importance of multilateral cooperation in addressing complex global challenges.

Constructivism provides another important perspective by focusing on the role of norms and identities. India positions itself as a leader of the Global South, advocating for climate justice and equity. This identity shapes its discourse and influences its policy decisions. By emphasizing fairness and historical responsibility, India seeks to reshape global norms and promote a more equitable climate regime.

Critical Theory further deepens this analysis by highlighting structural inequalities in global climate governance. It critiques the dominance of developed countries and the marginalization of developing nations. India's demands for increased climate finance and technology transfer reflect its recognition of these inequalities and its efforts to address them.

Together, these theoretical perspectives reveal the complexity of India's climate strategy. It is not driven by a single logic but rather by a combination of strategic interests, cooperative engagement, normative commitments, and systemic critique.

### **India's Climate Vulnerability – The Foundation of Its Leadership**

India's leadership in climate security is deeply rooted in its own vulnerabilities. The country faces a wide range of

climate-related challenges, each with significant implications for its economy, society, and environment.

One of the most pressing issues is the increasing frequency and intensity of heatwaves. Rising temperatures have led to record-breaking heat conditions in many parts of the country, affecting public health, agricultural productivity, and energy demand. Heatwaves also exacerbate water scarcity, particularly in arid and semi-arid regions.

Erratic monsoon patterns present another major challenge. The Indian monsoon is a critical component of the country's agricultural system, and any disruption can have far-reaching consequences. Unpredictable rainfall patterns can lead to both droughts and floods, affecting crop yields and rural livelihoods. Coastal regions are particularly vulnerable to climate change. Rising sea levels and increasing cyclone intensity pose significant risks to infrastructure, livelihoods, and ecosystems. States such as Odisha have experienced frequent cyclones, highlighting the need for robust disaster management systems. The Himalayan region also faces significant challenges due to glacial retreat and changing snowfall patterns. These changes threaten water availability for millions of people who depend on river systems originating in the Himalayas.

India's vulnerability is further compounded by socio-economic factors. A large proportion of the population depends on climate-sensitive sectors such as agriculture, making them highly vulnerable to environmental changes. Rapid urbanization has created additional risks, particularly in informal settlements that lack adequate infrastructure and services.

Despite these challenges, India has made significant progress in building resilience. Investments in early warning systems, disaster management frameworks, and climate-resilient infrastructure have reduced the impact of extreme events. These efforts demonstrate India's ability to adapt to climate risks while continuing its development trajectory.

Importantly, India's experience with climate vulnerability has shaped its global advocacy. It understands the challenges faced by developing countries and uses this understanding to push for more inclusive and equitable climate policies. This connection between domestic vulnerability and international leadership is a defining feature of India's approach to climate security.

### **From Vulnerability to Agency – The Emergence of India as a Climate Leader**

India's transformation from a climate-vulnerable nation to a proactive leader is one of the most significant developments in global climate politics. This shift has been driven by a combination of domestic policy changes, economic growth, and strategic diplomacy. In the early years of climate negotiations, India adopted a defensive stance, emphasizing its right to development and resisting binding emission targets. However, over time, it has moved towards a more proactive approach, recognizing the importance of global cooperation in addressing climate challenges.

India's renewable energy expansion is a key component of this transformation. The country has emerged as one of the world's leading renewable energy markets, with significant investments in solar and wind power. This transition not only reduces emissions but also enhances energy security and creates economic opportunities.

India's leadership is also evident in its multilateral initiatives. By launching and supporting global platforms, it has positioned itself as a provider of solutions rather than

merely a participant in negotiations. This shift reflects a broader change in its foreign policy, emphasizing leadership and responsibility. At the same time, India continues to advocate for climate justice, ensuring that the concerns of vulnerable populations remain central to global discussions. This dual approach—combining action with advocacy—sets India apart from many other countries.

### **Energy Transition in India – Balancing Growth, Equity, and Sustainability**

India's energy transition lies at the core of its climate security strategy. As a rapidly developing economy with a growing population and industrial base, India faces a fundamental challenge: how to meet rising energy demands while reducing greenhouse gas emissions. This dilemma is not merely technical but deeply political, as it involves balancing economic growth, social equity, and environmental sustainability.

Over the past decade, India has made remarkable progress in expanding its renewable energy capacity. Solar energy, in particular, has emerged as a cornerstone of India's transition. Large-scale solar parks, rooftop solar initiatives, and decentralized energy systems have significantly increased the share of renewables in the energy mix. Wind energy has also contributed to this expansion, particularly in states with favorable geographic conditions.

By the mid-2020s, India had achieved a major milestone by crossing 50% installed electricity capacity from non-fossil fuel sources, ahead of its 2030 target. This achievement reflects not only policy commitment but also the growing economic viability of renewable energy. Declining costs of solar panels and technological advancements have made renewables increasingly competitive with fossil fuels.

However, this progress must be understood in context. While renewable capacity has increased, coal continues to dominate actual electricity generation. This is due to several factors, including the intermittency of renewable energy, limitations in grid infrastructure, and the need for stable baseload power. Coal remains a critical component of India's energy security, particularly for supporting industrial growth and ensuring affordable electricity for millions.

This dual reality highlights the complexity of India's energy transition. It is not a linear shift from fossil fuels to renewables but a gradual and multi-dimensional process. India's approach emphasizes a "just transition," which seeks to ensure that climate action does not disproportionately affect vulnerable populations or hinder economic development.

In addition to solar and wind energy, India is investing in emerging technologies such as green hydrogen, battery storage, and electric mobility. Green hydrogen, in particular, is seen as a potential game-changer, offering a clean alternative for sectors that are difficult to decarbonize, such as heavy industry and transportation.

Government policies have played a crucial role in driving this transition. Initiatives such as the National Solar Mission, Production-Linked Incentive (PLI) schemes for renewable manufacturing, and incentives for electric vehicles have created a supportive ecosystem for clean energy development. Despite these achievements, significant challenges remain. Infrastructure constraints, financing gaps, and technological dependencies continue to hinder progress. Moreover, the transition requires substantial investment, estimated in trillions of dollars over the coming decades.

India has consistently argued that developed countries must support this transition through climate finance and technology transfer. Without such support, the burden of transition could undermine development goals and exacerbate inequalities.

### **Climate Diplomacy – India as a Voice of the Global South**

India's climate diplomacy is a defining feature of its role in the politics of climate security. It has consistently positioned itself as a representative of the Global South, advocating for equitable solutions and highlighting the disproportionate impact of climate change on developing countries.

At the heart of India's diplomatic approach is the principle of climate justice. India argues that climate change is not merely an environmental issue but a question of fairness and responsibility. Developed countries, which have historically contributed the most to greenhouse gas emissions, must take the lead in mitigation and provide financial and technological support to developing nations.

India's stance is particularly evident in its participation in global climate negotiations. At the Paris Agreement, India played a crucial role in shaping a framework that accommodates diverse national circumstances. The agreement's emphasis on nationally determined contributions (NDCs) reflects this flexibility, allowing countries to set their own targets based on their capabilities.

In subsequent negotiations, India has continued to advocate for stronger commitments on climate finance and adaptation. It has repeatedly highlighted the gap between promised and actual funding, emphasizing that current levels are insufficient to address the scale of the challenge.

India's leadership extends beyond negotiations to broader diplomatic platforms. During the G20 Summit 2023, India placed climate action at the center of the global agenda. It emphasized sustainable development, energy transition, and climate resilience, while also advocating for the inclusion of developing countries in decision-making processes.

One of the most significant outcomes of India's G20 presidency was the emphasis on "Lifestyle for Environment" (LiFE), which promotes sustainable consumption and behavioral change. This initiative reflects India's holistic approach to climate action, recognizing that technological solutions alone are insufficient without changes in lifestyle and consumption patterns.

India's diplomacy also involves coalition-building with other developing countries. It collaborates with groups such as BASIC (Brazil, South Africa, India, China) and G77 to strengthen its bargaining power in negotiations. These alliances enable India to amplify the voices of vulnerable nations and push for more equitable outcomes. At the same time, India engages constructively with developed countries, seeking to bridge divides and promote consensus. This dual engagement—representing the Global South while engaging with the Global North—positions India as a "bridge power" in climate politics.

### **Institutional Leadership – From Norm Advocacy to Global Action**

India's role in climate security is not limited to advocacy; it is actively shaping global governance through institutional innovation. By launching and leading multilateral initiatives, India has transitioned from a norm entrepreneur to a provider of global public goods.

One of the most prominent examples is the International Solar Alliance. Established to promote solar energy deployment in tropical countries, the ISA aims to mobilize large-scale investments and facilitate technology transfer. It addresses two critical challenges simultaneously: energy access and climate mitigation. The ISA's significance lies not only in its objectives but also in its inclusivity. By focusing on developing countries, it ensures that the benefits of renewable energy are accessible to those who need them most. This aligns with India's broader commitment to equity and sustainability.

Another key initiative is the Coalition for Disaster Resilient Infrastructure. This platform focuses on enhancing the resilience of infrastructure systems against climate and disaster risks. Infrastructure is a critical component of climate security, as damage to transport, energy, and communication systems can have cascading effects on economies and societies. The Coalition promotes best practices, knowledge-sharing, and capacity-building, particularly for vulnerable countries. It reflects India's recognition that adaptation and resilience are as important as mitigation in addressing climate change.

India has also proposed the Green Grids Initiative – One Sun, One World, and One Grid, which envisions a globally interconnected electricity grid powered by renewable energy. This ambitious initiative aims to optimize energy use by transferring electricity across time zones, reducing reliance on fossil fuels and enhancing energy security.

These initiatives demonstrate India's proactive approach to climate leadership. Rather than merely participating in global governance, India is actively shaping it by creating institutions that address specific challenges. Importantly, these initiatives also enhance India's geopolitical influence. By providing solutions and building partnerships, India strengthens its position as a leader in the Global South and a key factor in global governance.

### **Climate Finance and the Politics of Inequality**

Climate finance is one of the most contentious issues in global climate politics, and it lies at the heart of India's advocacy. Developing countries require substantial financial resources to implement mitigation and adaptation measures, yet existing funding mechanisms fall far short of these needs.

India has consistently emphasized that climate finance is not a matter of charity but an obligation rooted in historical responsibility. Developed countries have committed to mobilizing \$100 billion annually for climate action, but actual disbursements have often fallen short of this target.

This gap has significant implications for climate security. Without adequate funding, developing countries are unable to invest in renewable energy, build resilient infrastructure, or implement adaptation strategies. This not only increases their vulnerability but also undermines global efforts to address climate change. India has called for a shift from “billions to trillions” in climate finance, reflecting the scale of investment required. It has also advocated for greater transparency and accountability in financial flows, ensuring that funds reach those who need them most.

At the domestic level, India is taking steps to mobilize climate finance through innovative mechanisms. These include green bonds, public-private partnerships, and the development of a climate finance taxonomy to guide sustainable investments. However, domestic efforts alone are insufficient. Global cooperation remains essential,

particularly in addressing structural inequalities in the international financial system.

India's stance on climate finance highlights its broader critique of global governance. It argues that existing institutions are not adequately equipped to address the challenges of climate change and calls for reforms that prioritize equity and inclusivity.

### **India as a Bridge Power in Climate Geopolitics**

Climate change is increasingly shaping global geopolitics, influencing alliances, trade relations, and power dynamics. In this context, India has positioned itself as a bridge between the Global North and South.

This role is reflected in its diplomatic strategy, which combines advocacy for developing countries with constructive engagement with developed nations. By mediating between competing interests, India contributes to consensus-building and enhances its influence in global governance.

India's participation in platforms such as the G20, BRICS, and other multilateral forums underscores its growing importance in climate politics. It uses these platforms to promote its vision of a multipolar and inclusive world order. At the same time, India's climate strategy is closely linked to its broader geopolitical objectives. By leading initiatives such as the ISA and CDRI, it enhances its soft power and strengthens its relationships with other countries.

This integration of climate diplomacy with foreign policy reflects a sophisticated understanding of the interconnected nature of global challenges. It also highlights the role of climate action as a tool for enhancing international influence.

### **Case Studies of India' Climate Action**

#### **Case Study I – Disaster Resilience and Climate Governance in Odisha**

One of the most compelling examples of India's transformation from vulnerability to leadership in climate security is found in the eastern coastal state of Odisha. Historically prone to cyclones and storm surges, Odisha has experienced some of the most devastating climate-related disasters in India's history. The 1999 super cyclone, which caused massive loss of life and infrastructure damage, marked a turning point in the state's approach to disaster management.

In the decades since, Odisha has developed one of the most robust disaster preparedness and response systems in the developing world. The state has invested heavily in early warning systems, cyclone shelters, evacuation protocols, and community awareness programs. These measures have significantly reduced the human cost of cyclones, even as their frequency and intensity have increased due to climate change.

For instance, during recent cyclones such as Fani (2019) and Yaas (2021), the state successfully evacuated millions of people in advance, minimizing casualties. This stands in stark contrast to earlier disasters, where lack of preparedness led to large-scale loss of life.

Odisha's model is particularly significant because it integrates technology with community participation. Early warning systems are complemented by grassroots-level engagement, ensuring that information reaches even the most remote and vulnerable populations. Women's groups, local leaders, and civil society organizations play an active role in disaster preparedness, reflecting a decentralized approach to governance.

From a climate security perspective, Odisha's experience demonstrates the importance of resilience and adaptation. While mitigation efforts aim to reduce emissions, adaptation focuses on coping with the impacts of climate change. For vulnerable regions, adaptation is not optional but essential. India has leveraged this experience in its global advocacy, particularly through initiatives such as the Coalition for Disaster Resilient Infrastructure. By sharing best practices and promoting resilience-building measures, India contributes to global efforts to enhance climate security. Odisha's success also highlights the role of political will and institutional capacity. Effective governance, timely decision-making, and coordination between agencies are critical for managing climate risks. This case study thus underscores how local experiences can inform global strategies, reinforcing India's credibility as a leader in climate resilience.

### **Case Study II – Heatwaves, Urban Stress, and Adaptive Governance**

While cyclones represent sudden and dramatic climate events, heatwaves illustrate a slower but equally dangerous dimension of climate change. In recent years, India has experienced increasingly severe and prolonged heatwaves, affecting both rural and urban areas.

Urban centers are particularly vulnerable due to the "urban heat island" effect, where concrete structures and lack of green spaces lead to higher temperatures. Cities such as Delhi, Ahmedabad, and Hyderabad have recorded extreme temperatures exceeding 45°C, posing serious risks to public health and productivity.

Heatwaves have significant socio-economic implications. They affect outdoor workers, reduce labor productivity, increase energy demand, and strain public health systems. Vulnerable populations, including the elderly, children, and low-income groups, are disproportionately affected. In response, India has developed innovative adaptation strategies, particularly at the city level. Ahmedabad's Heat Action Plan is often cited as a pioneering model. It includes early warning systems, public awareness campaigns, provision of cooling centers, and coordination between government agencies.

These measures have proven effective in reducing heat-related mortality and improving preparedness. Importantly, they demonstrate the potential of localized governance in addressing climate challenges. At the national level, India has integrated heatwave management into its broader climate adaptation framework. Policies emphasize data-driven decision-making, inter-agency coordination, and community engagement.

This case study highlights the multidimensional nature of climate security. Heatwaves are not just environmental phenomena; they intersect with urban planning, public health, and social equity. Addressing them requires a holistic approach that combines infrastructure development with behavioral change.

India's experience with heatwaves also informs its global advocacy. By sharing best practices and promoting adaptive governance, India contributes to international efforts to build resilience in urban areas.

### **Case Study III – Climate Leadership and the G20 Summit 2023**

India's presidency of the G20 in 2023 marked a significant moment in its climate leadership. The summit provided a

platform for India to shape the global agenda and highlight the importance of climate security.

One of the key themes of the summit was sustainable development, with a strong emphasis on energy transition and climate resilience. India successfully brought climate issues to the forefront of discussions, linking them with economic growth and development. A major outcome of the summit was the inclusion of the African Union as a permanent member of the G20, reflecting India's commitment to inclusivity and representation. This move aligns with its broader objective of amplifying the voices of the Global South.

The summit also emphasized the need for increased climate finance and technology transfer. India highlighted the gap between commitments and actual funding, calling for more concrete actions from developed countries. Another important initiative promoted during the summit was the concept of Lifestyle for Environment (LiFE). This approach emphasizes the role of individual and collective behavior in addressing climate change, complementing technological and policy solutions.

India's leadership during the summit demonstrated its ability to bridge divides and build consensus. By balancing the interests of different countries, it reinforced its position as a mediator and a responsible global actor. From a climate security perspective, the summit underscored the interconnected nature of global challenges. Climate change, economic development, and social equity are deeply intertwined, requiring coordinated and inclusive solutions.

### **Challenges And Critique – Limits Of India's Climate Leadership**

Despite its achievements, India's climate leadership is not without challenges and criticisms. A balanced analysis requires acknowledging these limitations and examining their implications.

One of the primary criticisms relates to India's continued reliance on coal. While renewable energy capacity has increased, coal remains a dominant source of electricity generation. Critics argue that this undermines India's climate commitments and slows the transition to a low-carbon economy. However, this criticism must be understood in context. India's energy needs are immense, and coal provides a reliable and affordable source of power. Transitioning away from coal requires significant investment, technological innovation, and international support.

Another challenge is the gap between policy commitments and implementation. While India has announced ambitious targets, achieving them requires effective governance, coordination, and monitoring. Issues such as bureaucratic inefficiencies, regulatory barriers, and financing constraints can hinder progress. Urban governance also presents challenges. Rapid urbanization has created infrastructure deficits and increased vulnerability to climate risks. Addressing these challenges requires integrated planning and investment in sustainable infrastructure.

At the international level, India faces the challenge of balancing its leadership role with its developmental priorities. While it advocates for climate justice, it must also ensure that its own policies align with its commitments. There are also geopolitical constraints. Climate negotiations are often influenced by broader political and economic dynamics, limiting the scope for cooperation. India must navigate these complexities while maintaining its position as

a leader. Despite these challenges, India's approach remains pragmatic and adaptive. It recognizes the trade-offs involved and seeks to balance competing priorities.

### **Future Pathways – India's Evolving Role in Climate Security**

Looking ahead, India's role in climate security is likely to become even more significant. As the impacts of climate change intensify, the need for leadership and cooperation will grow.

One key area of focus will be technological innovation. Advances in renewable energy, energy storage, and green hydrogen have the potential to transform the energy landscape. India's investments in these areas will shape its future trajectory.

Climate finance will remain a critical issue. Ensuring adequate funding for mitigation and adaptation will require reforms in global financial systems and stronger commitments from developed countries. India is also likely to play a greater role in shaping global norms and institutions. By promoting inclusive and equitable frameworks, it can contribute to a more just and sustainable world order.

At the domestic level, strengthening governance and institutional capacity will be essential. This includes improving coordination between agencies, enhancing data systems, and promoting community participation. Importantly, India's future leadership will depend on its ability to integrate climate action with development goals. This requires a holistic approach that addresses economic, social, and environmental dimensions simultaneously.

### **Conclusion – Speaking For the Vulnerable, Acting With Responsibility**

India's journey in the politics of climate security reflects a remarkable transformation. From a position of vulnerability, it has emerged as a proactive and influential actor in global climate governance. Its approach is characterized by a unique combination of advocacy and action. By speaking for the vulnerable, India highlights the moral and ethical dimensions of climate change. By acting as a leader, it demonstrates the practical possibilities of addressing climate challenges.

This dual role positions India as a bridge between different worlds- between developed and developing countries, between growth and sustainability, and between vulnerability and resilience. It reflects a broader vision of global cooperation and shared responsibility.

In an era of increasing uncertainty and complexity, India's approach offers valuable lessons for the international community. It underscores the importance of equity, inclusivity, and innovation in addressing one of the greatest challenges of our time. Ultimately, the politics of climate security is not just about managing risks; it is about shaping the future. India's leadership in this domain will play a crucial role in determining whether that future is sustainable, equitable, and secure.

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