

India and Climate change Challenges: Programmes and policies of Modi Government

Krishna Devidasi & Dipak Kumar Dash

Research Scholar, P.G. Department of Political Science, Utkal University, Bhubenashwar
Assistant Professor, P.G. Department of Political Science, Christ College, Cuttack

ABSTRACT

Now the World is facing two crises. One is International Terrorism and second is Global Warming. With industrialization based on fossil fuels, the emission of CO₂ and other greenhouse gases since the 15th-century scientific revolution has resulted in rising the temperature of the earth, which is known as global warming. This rise in temperature of the earth, or global warming beyond 1.5°C, is a disaster for the eruptive human civilization. As predicted by the scientists, the rise of temperature beyond 1.5°C will be the doomsday for the entire globe. Since the Earth Summit (1992) there have been many climate change summits among the nations, such as the Kyoto Protocol, the Copenhagen Treaty, and very recently the 2015 Paris Summit, followed by many Conference of the Parties (COP) meeting among the nations. All these summits are insisted on reducing the emission of CO₂ as determined by the sovereign nations below 1.5°C and reducing the dependence of nations on the use of fossil fuels. The dilemma before all nations, as before India, is how to reduce emissions of CO₂ by decreasing dependence on fossil fuels and meeting the energy needs of a growing population by seeking alternative sources of energy. The Government of India under Shri Narendra Modi has been trying to meet the challenges of global warming by increasing renewable sources of energy. In this background this paper discusses new Indian climate policy directions and their impact to minimize the negative impact of climate change under Modi's leadership.

KEYWORDS: Climate Change policy, India, Global, Environmental politics, Commitments

INTRODUCTION:

The twenty-first century is neither a century of the United States of America, nor will it be a century of Asia. It is a century which will decide whether human beings will continue to exist in the future or not. To be sure, climate change is the greatest threat to human civilization that has ever existed; failure to adequately address it might lead to the extinction of all humans. Instead of collaborating to address the environmental catastrophe, prominent figures from developing, developed and poor nations are placing blame on each other. From 2007 to 2010, climate diplomacy was the centre of extraordinary public interest.

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Address for correspondence :

Krishna Devidasi, Research Scholar, P.G. Department of Political Science, Utkal University, Bhubenashwar
Email:krishumohanty8@gmail.com

ORCID ID: <https://orcid.org/0009-0002-6339-859X>

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When the issue of global warming arises India is among the most susceptible nations. Half of the population works in agriculture or other industries are vulnerable to climate change. Almost three quarters of the population subsists on less than \$2 per day. According to the 2010 United Nations (UN) Human Development Report (HDR 2010), the 26 poorest African nations have it worse than the eight states of India, which are home to 421 million people living in extreme poverty. India's carbon dioxide emissions from fuel combustion alone tripled between 1990 and 2011 and between 2008 and 2035, those emissions are expected to climb by about 2.5 times. It makes the country the World's third greatest producer of greenhouse gases (GHG). (Jogesh: 2011)

Developed nations like the US and other European countries have declined to join a binding agreement to control emissions of greenhouse gases, citing the increasing emissions of emerging nations like India. But developing nations have argued that these nations have carried the burden of reducing emissions for the past and that their emissions are modest relative to the population, hence they are unwilling to commit to legally enforceable reductions. The fact that the three major frameworks for calculating carbon emissions national, per capita, and historical lead to different findings on who is responsible for climate change is one reason why United Nations Framework Convention on Climate Change (UNFCCC) talks have failed to progress.

The environment has emerged as one of the most significant concerns in international politics in the twenty-first century, and the politicization of the environment has emerged as a distinctive characteristic. In the history of world politics, the environment has never been of such great significance as it is now. Consequently, it is of the utmost importance to investigate the way the environment became so prominently integrated into the realm of mainstream international politics that it started to capture the attention of researchers. Nonetheless, sev-

eral researchers have pointed out that India's stance in both local and international forums has begun to evolve in the last few years. To combat energy security and other climate change vulnerabilities, the Prime Minister established a Council on Climate Change in 2007. He ordered eight national missions to do the same. India voluntarily pledged in 2009, just days before the pivotal COP 15 summit in Copenhagen, to reduce the carbon intensity of its GDP from 2005 levels by 20-25% by 2020.

Concerning the specifics and trajectory of these changes, nevertheless, there are those who disagree with the Indian government and non-governmental organizations. These discords were underscored in a leaked private letter that Jairam Ramesh had sent to the Prime Minister. The letter's author, Ramesh, pleaded for domestic mitigation legislation and said that India should tone down its rhetoric on its failure to set emission reduction targets. Environment Minister Ramesh tried to influence India's bargaining position during the Copenhagen climate negotiations, but top Indian delegates, including Prime Minister Shyam Saran's Special Envoy on Climate Change and other negotiators, rejected this approach. Without achieving other Indian objectives, such as securing legally enforceable emission reductions for industrialized countries and funding for adaptation and mitigation efforts in India from industrialized nations, Ramesh has previously suggested the prospect of voluntary pledges. (Jyaaraman: 2009)

Some have claimed that India, the United States, and other BASIC countries are trying to be more flexible by embracing bottom-up pledges rather than the multi-government UNFCCC consensus process for binding emissions reductions (in the "Kyoto style"). This includes the voluntary commitments made by India, China, and the United States prior to COP 15. But this is not enough to keep the global temperature increase below 2 °C.

Some foreign observers viewed India as a "deal breaker" during the 2011 COP 17 summit in Durban because it

refused to adopt a new, legally enforceable structure which would involve both developing and developed nations. In her parliament address, India's new environment minister, Jayanthi Natarajan, stated there is no discussion of signing a legally binding pact at this stage. Several researchers have raised concerns that the new environment minister may have limited the international negotiation stance from Cancun's wider openness to a "Ramesh deep" approach.

DOMESTIC CONSTITUENCIES

The Indian political establishment has long ignored climate change since it stands out in comparison to more immediate local issues like alleviating poverty, ensuring access to essential services, and managing the recession. According to an ex-minister of forests and the environment, climate change is not a topic that moves constituencies. Also, within the current framework, climate change has been getting more and more attention from the organized political system. The two parliamentary discussions that took place before and after the COP in Copenhagen are quite illuminating. Developed nations' duty to combat climate change was clearly and often stated throughout the Lok Sabha debate, which is the lower house of parliament in India. The debate also included some talk of local implications. Climate change was the dominant topic of discussion in the Rajya Sabha following the Copenhagen climate summit.

One thing that stood out was that nobody asked if the Copenhagen Accord tackled the issue of climate change adequately. Instead of focusing on a strong global climate deal, India's priorities have always been on expanding its own national growth area. An indicator, although a subtle one, of a tendency towards involvement with the matter in ways directly pertinent to local constituents is the fact that elected Parliamentarians do pay some attention to local repercussions. One indicator of national politics is the growing amount of coverage of climate change in the media. However, most studies have only looked at print media in English. Jogesh showed that between 2009 and 2010, 57% of English-language news coverage was devoted to climate politics on a global scale, while 21% was devoted to local politics and policy, including speculation about India's negotiation team's make-up. Only 5% of the articles were about business and 10% were on climate science. In terms of climate coverage, these numbers point to the ongoing preeminence of the international negotiation process.

While most opinion articles blamed industrialized nations for the issue, a small minority of papers pointed out that emissions from developing economies can no longer be disregarded in international negotiations. The consensus was that developing nations should step up their game, but only when given the green light by developed nations and the resources to do so. These tendencies point to a conviction in the duty of developed nations to spearhead action on climate change. This is a persistent preponderance of the international process in climate change coverage in the media, with some acknowledgement of the importance of domestic policies and initiatives.

Understanding the political currents around climate change may be achieved, in part, by listening to and learning from influential groups whose views could influence public opinion. For instance, it seems to reason that environmental experts and activists in India would be avoided supporters for national mitigation initiatives. There is a common misconception among Indian environmentalists that environmental protection in the South is inherently linked to issues of inequality. Because of this, they end up joining or even starting the national narrative on industrialized nation's responsibilities. In addition, there is debate among Indian environmentalists about whether local environmental ambitions would be undermined by the climate agenda and its potentially disastrous ramifications.

The Prime Minister and the Minister of the Environment were both issued a joint memorandum in the run-up to Copenhagen by a broad coalition of progressive persons, including social groups, individual organizations, and unions, among others. In their hysterical portrayal of climate change as an international catastrophe, they demanded that developed countries cut emissions and pay the ecological debt, while calling on emerging powers like India to pledge to quit their path of excessive consumption and pollution by establishing legally binding mitigation objectives. The Indian young Climate Network is another young coalition whose platform calls for action to reduce greenhouse gas emissions, expand access to energy, and ensure that all people are treated fairly in the face of climate change.

There has been a gradual and patchwork awakening among India's corporate elite to the reality of climate change. The business world was "immobilized and uninvited" according to one observer in 1998. A denunciation of the objective was published by the Federation of Indian Chambers of Commerce and

Industry. The group said that any action taken by India and its businesses should be accompanied by financial backing. Both perspectives are grossly biased and fail to consider the whole spectrum of India's medium and small enterprise.

TRANSFORMATION OF INDIA'S APPROACH TO CLIMATE CHANGE

Government officials in India have started several plans and policy development procedures guided by the emerging co-benefits frame as the defining architecture for climate change policy in India. Due to its youth, ongoing nature, and lack of accessible analysis, this process resists simple summary. Furthermore, the comprehensive collection of policy initiatives is vast and disjointed, including international commitments, national strategies and regulations, and state-level plans. Although the exact causes of each of these processes remain unclear, one of the most significant is probably the increasing global pressure leading up to Copenhagen, which has included climate discussions at G20 summits. (World Bank: 2008).

Perhaps most importantly, the National Action Plan on Climate Change (NAPCC) serves as the central policy document for all these initiatives. Its foundation was the creation of eight national "missions" with the overarching goal of incorporating climate change adaptation and mitigation strategies into various national policies. An example of a mission with a defined purpose and timeline is the Solar Mission, which sought to enable 20,000 MW of solar electricity by the year 2022. A National Water Mission is one example of an organization with more general and far-reaching goals, such as promoting integrated water management at the district phase, conserving water, and building an information system. On one hand, there are many in India who believe that the country's per capita position is questionable because of internal disparities; on the other hand, there are many who believe that the developed world is hiding behind India's wealthy just as much as the wealthy in India are hiding behind the poor. Though it has added complexity to the discussion by drawing attention to India's internal distributive difficulties, the hiding behind the poor argument has not succeeded in dispelling widespread support for the per capita rule as a method of tackling climate justice.

A State Action Plan on Climate Change (SAPCC) has been mandated by the central government for each state since 2010. The purpose of the SAPCCs is to standardize

climate action plans from state to state. They were also established to acknowledge that states have authority over some topics covered by the NAPCC, especially those pertaining to adaptation. Although these SAPCCs are still in their early stages, early signs indicate that these programs will face significant conceptual and practical hurdles. Planned actions will face the same familiar difficulty of integrating climate change into development practice as those in other nations: addressing the interconnectedness of development challenges and their climatic components. Realistically, concerns related to the federal structure of India and practical difficulties regarding the availability of funding are likely to provide obstacles to implementation. Example: although states and municipalities have jurisdiction over urban ecosystems, the federal government has a comprehensive plan to guide urban growth in the future. Addressing climate change will need incorporating it as a goal into an already chaotic institutional framework.

Although it is early to judge the efficacy of these strategies, it is becoming clear that putting low-carbon growth into practice in India will be a major oversight hurdle. Although there has been a gradual shift of power away from the Indian government and towards the states, the overall approach has been one of top-down policy making. Up until now, there has been a tendency towards more state-level policymaking rather than a national one, and the effort has been mostly top-down. Gujarat, for example, has begun solar power programs and had a Department of Climate Change long before it had a state action plan.

The Paris Agreement and India's Revised First Nationally Determined Contribution:

The UN Framework Convention on Climate Change (UNFCCC) received India's Intended Nationally Determined Contribution (NDC) on October 2, 2015. Herewith, India provides the following information as an update to its first NDC, which was filed on October 2, 2015, for the period up to 2030:

- To counteract climate change, it is crucial to promote a healthy and sustainable lifestyle that adheres to conservation and moderation principles. One approach to do this is by organizing a public movement called "LIFE- Lifestyle for Environment."
- To compare with other countries at the same economic level, India needs to take a more environmentally friendly and cleaner approach.

- By 2030, we want to produce half of our power from non-fossil fuels via technology transfer and reasonable foreign finance, primarily from the green climate fund (GCF).
- By increasing the amount of forest and tree cover, we aim to produce an extra 2.5 to 3 billion tonnes of CO₂ equivalent carbon sink by the year 2030.
- To increase funding for development programs in areas most at risk from climate change, including agriculture, water resources, the Himalayan region, coastal regions, health, and disaster management, so that these areas can better adapt to the changing environment.
- By increasing the amount of forest and tree cover, we aim to produce an extra 2.5 to 3 billion tonnes of CO₂ equivalent carbon sink by the year 2030.
- To fill the resource gap and execute the adaptation and mitigation measures, it is necessary to raise domestic and fresh and extra money from developed nations.
- To facilitate the rapid dissemination of state-of-the-art climate technology in India and to facilitate cooperative collaborative research and development of such future technologies, it is necessary to establish capabilities, set up domestic frameworks, and design world-wide framework.

Modi Government's Steps on Climate Change:

Traditionally India has treated climate change as a diplomatic challenge, emphasizing that developed nations due to their historical responsibility for the crisis should take the lead in reducing emissions and provide financial and technological support to developing countries. This stance is both justifiable and has served India's interests well in international negotiations. However, there are now compelling reasons for India to reconsider its climate strategy, both globally and domestically.

Firstly, the impacts of climate change are expected to be especially severe for India, posing significant obstacles to development and poverty alleviation. Secondly, India has access to several cost-effective measures that can simultaneously advance its development goals and address climate concerns. Rethinking its approach could enable India to actively participate in, or even lead, a 'coalition of the willing' advocating for a robust and ambitious global climate regime based on clear rules.

Domestically, India must chart low-carbon growth pathways that not only drive economic development but also strengthen climate adaptation and resilience. Achieving this dual transformation both at home and on the global stage requires the creation of robust institutions dedicated to effective climate governance. Often described as the "defining issue of our time," climate change is already having far-reaching impacts on natural ecosystems and human societies. India is particularly vulnerable due to its 7,500 km coastline, densely populated low-lying areas, underdeveloped infrastructure, and the heavy reliance of its population on climate-sensitive sectors like agriculture. Even with a global temperature rise of just 1°C since pre-industrial times, India is experiencing severe climate-related disruptions, including the retreat of Himalayan glaciers and an increase in the frequency and intensity of heat waves, droughts, extreme rainfall, and floods.

If global temperatures rise by 2.6°C to 3.2°C as projected based on current national commitments India faces grave and potentially irreversible consequences. These would not only affect ecosystems and human health but also have far-reaching implications for economic growth, livelihoods, and overall well-being. For instance, climate change is projected to reduce agricultural incomes in India by 15–25% by the end of the century.

Prime Minister Narendra Modi and India have often been praised on the global stage for their environmental leadership. Former Executive Director of the United Nations Environment Programme, Erik Solheim, commended Modi's leadership, highlighting India's economic growth and its transformation from an "environmental laggard to an environmental leader." This positive view of India's progress is shared by many in the international community. Notable achievements, such as the country's large-scale rural electrification efforts and substantial investments in solar energy and other renewable sources, have drawn international acclaim.

However, India's environmental and climate leadership under Modi remains complex and, at times, ambiguous. While India has played a prominent role in international climate negotiations since the inception of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, it has also been cautious about taking on binding commitments under agreements like the Paris Accord. India consistently emphasizes the principle of "common but differentiated

responsibilities,” advocating for a clear distinction between developed and developing countries similar to the provisions of the Kyoto Protocol, which did not impose emission reduction obligations on developing nations like India.

To advance this stance, India actively participates in several negotiating blocs, including the Like-Minded Developing Countries (LMDC), the Group of 77 (G77), and the BASIC group (comprising Brazil, South Africa, India, and China). These alliances, particularly the LMDC, often adopt firm positions that call for developed nations to take the lead in emissions reductions before expecting similar commitments from the developing world. Thus, while India has made notable strides in green energy and sustainability, its climate diplomacy continues to reflect a cautious and strategic balancing act between development priorities and global environmental responsibilities.

Despite ongoing complexities in India's climate policy, Prime Minister Modi has taken notable steps to enhance bilateral and multilateral climate cooperation, particularly in sectors aligned with national growth interests. A key example is the launch of the International Solar Alliance (ISA) in 2015, a joint initiative with France aimed at promoting solar energy adoption globally. However, the international climate governance landscape has become increasingly fragmented and decentralized, with a proliferation of actors and initiatives at various levels. This evolving structure raises important questions about how new forms of leadership might emerge and what role rising powers like India can play within a more bottom-up climate regime.

Domestically, one of India's most significant recent achievements has been the near-universal electrification of households. Electrification is critical for development, as it enables access to education, healthcare (by replacing polluting kerosene), and digital communication improving welfare, particularly in rural areas. This milestone is the result of sustained efforts over many years by successive governments. Prime Minister Modi, though credited with the achievement, has benefited from being in office at the time when these efforts came to fruition. Nonetheless, the electrification story is not without controversy. While official data suggests that all households have access to electricity, questions remain about the accuracy of reporting, and many areas continue to suffer from unstable and unreliable power supply.

Despite ongoing efforts to expand electrification, approximately 835 million people in India still depend on traditional biomass fuels for cooking and heating, according to the International Energy Agency (IEA). As the population continues to grow, electricity demand is projected to rise sharply, with coal expected to remain a major source of energy in the near term. While the Modi government has reaffirmed its commitment to expanding the share of renewable in the national energy mix, solar and wind despite their rapid growth still contribute only a modest share to overall electricity generation. India's continued reliance on coal highlights the complexity of transitioning to a cleaner energy system. Achieving this transition will require sustained investment, technological innovation, and policy support over the long term.

The rapid expansion of wind and solar energy in India has significantly slowed the construction of new coal-fired power plants. However, the existing coal infrastructure remains deeply entrenched and is expected to operate for decades, posing ongoing challenges. This reliance on coal contributes heavily to global carbon emissions and is a major source of domestic air pollution, which is linked to extensive health issues and premature deaths. Although the Indian government is actively encouraging the development of renewable energy, this shift is largely driven by economic factors renewable are now cheaper than new coal projects and can be deployed more quickly due to fewer regulatory and logistical hurdles. (Dasgupta:2012)

Despite the economic case for renewable, the government continues to support coal through a range of policy initiatives. These include easing regulations for building coal power plants, expanding coal mining, and improving coal transportation networks. Moreover, coal plants have long been permitted to exceed pollution limits. Even when new environmental regulations were introduced, the deadline for compliance initially set for 2017 was extended by five years, delaying necessary reforms.

While India has made significant strides in solar energy, policy inconsistencies have hindered its full potential. For instance, the imposition of a 25% tariff on imported Chinese solar panels raised costs for developers, while frequent cancellations of solar tenders by state governments despite competitive bids have created uncertainty in the sector. India's commitments under the Paris Agreement remain modest and are likely to be met

even without substantial new policy measures. However, these commitments still allow for a notable rise in emissions in the coming decades. If the government prioritized removing policy barriers to renewable and enforced stricter pollution controls on coal, India's future emissions trajectory could be significantly reduced.

Understanding India's developmental context is essential when evaluating its climate responsibilities. Despite being one of the largest current emitters, India's historical contribution to global emissions remains relatively modest. The country continues to grapple with widespread poverty and a development trajectory that, like many industrialized nations in the past, has been heavily reliant on fossil fuels. This dual challenge of sustaining economic growth while addressing climate change makes external pressure for aggressive mitigation measures a point of contention. A more effective and equitable approach would be to strengthen bilateral and multilateral partnerships that support India's low-carbon transition. This includes aligning climate goals with development priorities through targeted financial assistance, technology transfer, and enabling policy frameworks.

Since coming to power, the Modi government's performance has sparked considerable debate across various policy areas. While significant attention has been given to flagship domestic schemes such as the *Jan Dhan Yojana* and *Swachh Bharat Abhiyan*, the government's role in international climate diplomacy particularly in the lead-up to the Paris Climate Summit has received comparatively little focus. One of the key tests of Modi's international leadership lies in how effectively his government navigates the complexities of global climate negotiations, where India holds a crucial position as a major developing economy and greenhouse gas emitter.

Climate change has long presented a formidable global challenge, underscoring the urgent need for a comprehensive and effective international agreement. Expectations for the 2015 Paris Summit were particularly high in the wake of the landmark bilateral emissions deal between the United States and China. Under this agreement, China committed to peaking its emissions around 2030 and limiting coal consumption through 2020, while the U.S. pledged to cut its greenhouse gas emissions by at least 26% below 2005 levels by 2025. While the 2014 Lima Climate Conference drew criticism from some quarters for lacking decisive action, others viewed it as a meaningful

step toward fostering a shared sense of responsibility among nations. Nevertheless, progress toward establishing a unified global climate framework has been hindered by persistent political and economic complexities, with tangible outcomes remaining limited since the adoption of the Kyoto Protocol.

India's position in climate negotiations has traditionally aligned with the broader concerns of the developing world. Ahead of the Lima summit, India maintained a firm stance against binding emission reduction commitments, arguing that its per capita emissions 1.7 metric tons in 2010 were still significantly below the global average of 5 metric tons. This position reflects India's long-standing emphasis on equity and differentiated responsibilities in climate governance, highlighting the need to balance environmental objectives with developmental imperatives. (Prabhu : 2011)

According to the World Resources Institute (WRI), India had the lowest per capita emissions among the world's top 10 emitters in 2011, with an average of approximately 1.92 tons of carbon dioxide equivalent. In comparison, Canada recorded 24.6 tons, the United States 19.6 tons, Russia 15.3 tons, and China 7.69 tons. This stark disparity has informed India's negotiating stance in international climate forums. As of March that year, India initially resisted the United Nations' push for countries to adopt binding emission caps through the Intended Nationally Determined Contributions (INDCs). However, the country later updated its position, committing to reduce emissions intensity defined as carbon emissions per unit of GDP by 33 to 35 percent from 2005 levels by 2030. India also pledged that 40 percent of its cumulative installed electric power capacity would come from non-fossil fuel sources by the same year. (Dubash : 2011)

Prime Minister Narendra Modi's prior experience in promoting clean energy offers a key source of optimism for India's climate future. During his 12-year tenure as Chief Minister of Gujarat, he played a pioneering role in advancing renewable energy, establishing one of Asia's largest solar parks and positioning Gujarat as a frontrunner in solar energy deployment at the state level. (Lele : 2011): However, Modi's national climate rhetoric often reflects the inherent tension between environmental sustainability and India's pressing development needs. At the 2010 Cancun summit, India took a notable step by agreeing to voluntary emissions

reductions for the first time. Yet after Modi assumed national leadership, India adopted a more assertive stance at the 2014 Lima summit, focusing on the developmental imperatives of the Global South. As the Paris summit approached, India was expected to champion the principle of “climate justice”- a concept Modi has consistently advocated which highlights the unequal responsibilities and capabilities of developed and developing countries in addressing climate change.

India’s INDC commitments reflect a clear shift toward a more sustainable energy future. Alongside its goals for reducing emissions intensity and expanding non-fossil fuel capacity, India has also pledged to create an additional carbon sink of 2.5 to 3 billion tons of CO₂, through increased forest and tree cover demonstrating a comprehensive, multi-faceted approach to climate action. However, a key point of contention in India’s climate diplomacy, particularly with countries like the United States, lies in the valuation of adaptation. Central to this debate is the financial support that developed nations is expected to provide to developing countries to help them transition away from fossil fuel-based development pathways. India estimates that it will need up to \$206 billion for adaptation efforts between 2015 and 2030. With Prime Minister Narendra Modi’s growing global influence, this moment offers a significant opportunity for India to take on a leadership role in shaping an equitable and ambitious global climate agreement.

For perhaps the first time, India has the chance to not only participate but lead in advancing international climate cooperation. Modi’s consistent engagement on environmental issues and his close diplomatic ties particularly with then-U.S. President Barack Obama could offer the momentum needed to elevate the climate talks to a significantly more ambitious level. His leadership at this juncture could be both symbolically and substantively transformative. (Vihma : 2011)

To play this leadership role effectively, several strategic steps could be undertaken.

First, Modi should use his diplomatic influence to ensure alignment between the United States and China on critical issues related to emissions and climate pledges prior to the summit. Converting informal political commitments into formal, documented agreements would be vital, especially given concerns that the U.S. may fall short of its earlier \$100 billion climate finance

pledge. This trilateral engagement could potentially result in a joint Indo-Chinese-American statement or framework ahead of the summit.

Second, India’s negotiating team should push for a broader interpretation of the Intended Nationally Determined Contributions (INDCs). While the U.S. has sought to focus primarily on mitigation efforts, India and other developing nations argue that INDCs should also include adaptation financing and technical support. A compromise that includes two of these three components could pave the way for broader consensus between developed and developing countries.

Third, India should strategically leverage its influence within the broader Asian bloc, aligning with regional initiatives such as the China-led Asian Infrastructure Investment Bank (AIIB). By coordinating efforts through such platforms, India can amplify its voice and push for a coherent regional approach that contributes meaningfully to global climate governance.

Ultimately, the success of the Paris Summit in 2015 depended on visionary leadership capable of bridging geopolitical divides. India, as a major global player, needed to assert its developmental priorities while simultaneously providing the kind of leadership that could reshape the global climate narrative. Prime Minister Modi, with his strong rapport among world leaders and demonstrated commitment to climate action most notably through the launch of the International Solar Alliance (ISA) in 2015 was well-positioned to lead this charge.

Now, with Modi securing a second term in office following a decisive electoral victory, India’s role in international climate diplomacy stands to grow even further. The first term laid important groundwork, and India’s continued efforts in mitigation, adaptation, and climate finance can serve as a foundation for more assertive global leadership in the years ahead.

Prime Minister Narendra Modi’s government has earned widespread recognition for its leadership in environmental security and efforts to combat climate change. Modi himself was named among the 2018 “Champions of the Earth” by the United Nations Environment Programme (UNEP) in the “Policy Leadership” category for his pioneering work in establishing the International Solar Alliance and fostering new avenues of environmental cooperation.

Following the United States' withdrawal from the Paris Agreement in 2017, India has emerged as a beacon for other developing nations, showing how ambitious environmental and climate goals can align with development objectives.(Sardar:2019)

Since 2014, the Indian government's approach to climate action has been marked by a pragmatic and forward-looking strategy. A key step in this direction was the restructuring of the Prime Minister's Council on Climate Change to revitalize and streamline the national climate agenda. At international platforms such as COP20 in Lima and COP21 in Paris, India reaffirmed its strong commitment to addressing climate change in its ambitious Intended Nationally Determined Contributions (INDCs). These include targets such as achieving 227 GW of renewable energy capacity by 2022 and reducing industrial carbon intensity by 35 percent from 2005 levels. Despite these efforts, the energy and agriculture sectors continue to be major sources of emissions, and India remains the third-largest emitter globally. Interestingly, while India's ranking on the Climate Change Performance Index (CCPI) has steadily improved since 2014, its absolute share of global emissions has not declined. Looking ahead, a major challenge for the Modi government will be bridging this gap by mobilizing greater financial and technological support to realize its climate ambitions.

At the 2018 plenary session of the World Economic Forum in Davos, Prime Minister Modi highlighted the urgent need for developed nations to honor their commitments to provide financial and technological support to developing countries in the global fight against climate change. Effective climate action depends heavily on the mobilization of adequate funding to support both mitigation and adaptation efforts in the Global South. However, while global climate negotiations often center on mitigation, adaptation strategies and crucial mechanisms such as loss and damage tend to receive significantly less attention and funding. This imbalance is particularly concerning for developing countries, which must simultaneously address climate impacts and build resilience to future risks while pursuing development. In this context, India's climate diplomacy must shift from a primarily state-centric model to one that emphasizes the localized adaptation and resilience needs of vulnerable communities in developing and least-developed countries.

The international climate landscape is shaped by material structures, anarchic principles, and power dynamics, creating barriers to meaningful collective action on climate change. To overcome these challenges, India has the opportunity to develop a new framework that focuses on local, regional, and national efforts to address climate risks and policy needs. This framework should center on the interests and voices of the most vulnerable communities, ensuring a strong bottom-up approach to climate policy that can shift global climate politics in a more inclusive and impactful direction. Although progress is being made through the Paris Agreement, a more concerted effort is needed to sustain and strengthen these initiatives. As a global leader in climate governance, India must create frameworks to support climate-compatible development across other developing nations, facilitate energy transitions, and reduce socio-economic disparities and the technological divide. (Rajamani: 2016)

Prime Minister Modi has sought to frame India's environmental policy within a broader cultural context, drawing on ancient Hindu texts like the Vedas to underscore India's leadership in climate action. He has used these references to highlight the country's ethical approach to environmental stewardship, particularly during his address at COP21 in Paris in 2015. Another notable move was the announcement of an income tax rebate for electric vehicle (EV) buyers in the first budget of his second term, signaling India's commitment to combating climate change. This initiative is part of a larger ambition to transition most vehicles to electric power by 2030, alongside India's achievement of producing the world's cheapest solar power.

Under Modi's leadership, recent assessments suggest that India may surpass its own renewable energy targets for 2030, with clean energy potentially supplying half of the country's energy needs well above the original goal of 40%. However, India faces significant challenges. It has seven of the world's ten most polluted cities, and is one of the most water-stressed countries, with major cities already facing severe water shortages. If Modi can deliver substantial progress in reducing pollution, tackling climate change, and shifting the energy habits of 1.3 billion people, it would be a transformative achievement not only for India but for global climate action.

INDIA IN GLOBAL CLIMATE NEGOTIATIONS: RIO TO PARIS:

India plays a crucial role in global climate negotiations, balancing its development needs with environmental responsibilities. As one of the largest developing countries, India's position is vital in shaping climate policies that are fair and equitable. This article explores India's historical contributions, strategic positions, and the challenges it faces in addressing climate change while ensuring sustainable growth.

In the following table we can discuss the role of India in Climate Negotiations at Global level:

Year	Activities on a Global Scale	Events in India
1989	Resolution 44/207 of the United Nations General Assembly (UNGA) proposes for a "framework convention".	The "Expert Advisory Committee" on international environmental concerns is constituted by the Ministry of Forests and Environment (MoEF).
1990	Initial Assessment Report from the Intergovernmental Panel on Climate Change (IPCC).	An international gathering of developing nations is being held in India this year.
1991	The discussions were conducted by the Intergovernmental Negotiating Committee (INC).	A catastrophe has hit India's economy.
1992	At Rio, the UNFCCC was signed.	UNFCCC was signed by India.
1993		UNFCCC ratification by India achieved.
1994	The UN Framework Convention on Climate Change came into effect.	
1995	The "Berlin Mandate" is adopted by COP1.	
1997	At COP 3, Kyoto Protocol (KP) was adopted.	
2001	At COP 7, the Marrakesh Accords were approved.	
2002	"Climate adaptation" is a priority for the COP 8 conference.	The COP 8 is being held in Delhi, India.
2003		The National Clean Development Mechanism (CDM) Authority of India has been established.
2005	<ul style="list-style-type: none"> ➤ KP becomes legally binding. ➤ To examine the objectives for the "second commitment period," the Ad Hoc Working Group on KP (AWG-KP) was constituted at COP 11. 	
2007	<ul style="list-style-type: none"> ➤ Heiligendamm, Germany hosted the G8+5 Summit. ➤ At COP 13, the Bali Action Plan was approved. 	Prime Minister's Council on Climate Change (PMCCC) establishment.
2008	Sessions organized by the AWG-KP and the AWG-LCA during COP 14.	NAPCC is being developed.

2009	<ul style="list-style-type: none">➤ The '2 degree C' limit has been acknowledged in the Major Economies Forum (MEF) Leaders Declaration at L'Aquila.➤ The Copenhagen Accord is "taken note of" by COP 15.	<ul style="list-style-type: none">➤ India officially joins the MEF mission.➤ By 2020, India plans to voluntarily reduce its "emissions intensity" by 20–25 percent.
2010	<ul style="list-style-type: none">➤ At COP 16, the Cancun Agreements were promulgated.➤ COP 17 was the new deadline for AWG-KP and AWG-LCA requirements.	A "low carbon economy" expert group has been established by the Planning Commission.
2011	As a result of COP 17, the "Durban Platform for Enhanced Action" was approved.	
2012	The Doha Amendment to KP was supported and adopted at COP 18.	
2013	At COP 19, all participants are encouraged to formulate and share their INDCs.	
2014	Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)	
2015	At COP 21, the Paris Agreement was approved.	<ul style="list-style-type: none">➤ Solar power target in India increased fivefold.➤ India has decided to reduce its "emissions intensity" by 33-50% by the year 2030 as part of its INDC.➤ India and France jointly initiated "International Solar Alliance" .
2016	<ul style="list-style-type: none">➤ The officially implementetation of Paris Agreement.➤ The Paris Agreement rulebook is being negotiated by the Ad Hoc Working Group on the Agreement (APA), which was formed at COP 22.	
2017	United States withdrew from the Paris Agreement was announced.	The backing of the Paris Agreement is reaffirmed by India.
2018		
2019		
2020	Updated climate plans were issued by many nations, including Canada, describing strategies to achieve further reductions in emissions.	Prime minister Modi announced 36 GW of installed solar power at the 2020 Global Climate Ambition Summit.
2021		India vowed to reach net-zero emissions by 2070 during the 26th Conference of the Parties (COP 26).

2022	Expanding on earlier climate efforts, Canada unveiled its Emissions Reduction Plan for 2030.	➤ India amended its Nationally Determined Contributions (INDC) objectives to reduce GDP emissions intensity to 45% by 2030 and switch 50% of existing power capacity to non-fossil fuels. ➤ On July 1st, a ban was implemented on some single-use plastic goods.
2023	More nations agreeing to net-zero emissions by 2050 as climate action measures are implemented.	Committees were formed by the Ministry to provide strategies for various types of trash as part of their efforts to create a circular economy.
2024	Making the switch to renewable energy sources and making for the effects of climate change are two of the main goals of many nations' climate initiatives.	India submitted its 4th Biennial Update Report (BUR-4) to the UNFCCC.

CONCLUSION:

The future of international climate cooperation is highly dependent on India's position in the climate change discussions. A more committed India may need to alter its internal policies to increase fairness between generations. A new green technology and renewable energy source, according to scientists, is the way to go. Under the Modi administration, India's foreign policy has undergone a significant shift, moving towards geo-economic strategies rather than focusing solely on military power. Climate action has become an integral part of this geo-economic approach, positioning India as a responsible global actor and enhancing its international influence. Climate policy has not only found a place in India's geostrategic discourse but has also served as a means to strengthen the country's role on the global stage. (Bidwai: 2012)

In India's case, climate policy has largely driven a cooperative geo-economic strategy. The establishment of the International Solar Alliance (ISA) is a positive stage in this direction. India's collaborative stance in climate negotiations has opened doors to deeper partnerships. These efforts also enable India to increase its influence in developing countries. This cooperative approach aligns with India's broader foreign policy goal of positioning itself as a responsible global player.

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