

An Analysis of Climate Change and International Negotiations: A Special Reference to India

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Abstract— This paper analyses India's participation in more than 20 years of worldwide climate politics. India has transitioned from a voice on the fringes of worldwide climate policy to one that's actively shaping international efforts to combat global climate change. Analysis of the drivers behind India's negotiating positions on global climate change so far has focused on the competing motives of equity and co-benefits, which has however been insufficient to elucidate several of India's recent actions in global climate governance. This paper studies the evolution of India's climate policy through the attitude of its broader policy strategy, arguing that India's engagement with international climate politics is often better understood by locating its climate policy as a subset of its policy agenda.

Index Terms: Climate, Policy, Competing, Equity, Evolution, Agenda.

1. INTRODUCTION

The all-pervasive impact of the changing climate is probably the greatest challenge that humanity faces in the 21st century. Though earth's climate has always been variable over long-time scales of thousands of years, the pace and magnitude of the changes witnessed in recent times seem to be unprecedented. The biggest contributor to the life-threatening changes in natural ecosystems and natural cycles is the huge amount of fossil carbon fuels (coal, petroleum, and natural gas) that richer sections of the economic human society have extracted and burned especially within the last 150 years. Other activities of the industrial societies, such as expansion and intensification of ecologically destructive land use in commercial interest, the rapid rise in pollution levels, the introduction of exotic species, and over-harvesting of biological and non-renewable resources also contributed to the changing global climate. This has affected all life systems in the world and, among other consequences, has dangerously accelerated the extinction rate of species.

These activities resulted in sending much more greenhouse gases (such as CO₂, methane, and nitrous oxide) to the planet's atmosphere than existed earlier. This has led, in turn, to a 'greenhouse-like situation which allows, on the one hand, higher energy radiation of the sun to come through, but on the other, traps the low energy heat the world radiates back, leading the earth's surface to become continually warmer. Additional CO₂ and other greenhouse gases within the atmosphere create a veritable dome-like shield that forestalls the warmth from diffusing out into space; hence the analogy with a warming greenhouse. Several periods of warming earlier within the century had been recognized by climatologists, but the present major warming only became evident to the audience in the 1980s, and the warming trend has continued into the 21st century. According to the assessment report of the Intergovernmental Panel on Climate Change (IPCC-AR4), since 1850, the warmest recorded years so far have been 1998 and 2005, with 2002 to 2004 being the 3rd, 4th, and 5th within the series. The present annual global average (or mean) temperature has risen to about 14.5°C from around 13.7°C a hundred years ago, but annual average temperatures are not always the best indicators of a trend: many short-lived weather phenomena might be responsible for the change in weather (El Nino years tend to be warmer, La Nina years are generally cooler, large volcanic eruptions may cool down temperatures for a few years, and so on). Taking averages over a longer period, however, confirms the pattern. Thus, according to the UK Meteorological Office, the global average temperature has been rising by about 0.15°C every decade (Jones 2012).

According to the IPCC-AR4, emissions of three major greenhouse gases (carbon dioxide, methane, and nitrous oxide) since circa 1750 have had a greater cumulative effect on the atmosphere than the

aggregate including both anthropogenic and non-anthropogenic emissions of the last 10,000 years. Between 1995 and 2005 the level of carbon dioxide alone increased by 20 per cent, despite the Kyoto Protocol, which required emission reductions by the industrialized countries.

The IPCC-AR4 estimates that to limit the rise in global annual average temperature to 2°C the limit for triggering catastrophic climate change atmospheric carbon dioxide concentration has to be limited to 450 ppm, but this estimate is essentially supported by dated research. The changes in the World’s Climate, their impacts and, conservative projections. More recent simulation studies by James Hansen’s group at GISS brought this down to 350 ppm (Hansen et al. 2010), but current levels are already at around 390 ppm. According to the IPCC: ‘Even if emissions peak in 2015 and decrease rapidly at around 3% every year after that, there may only be a 50:50 chance of keeping global temperature rise below 2°C. Every delay of ten years in the peak

emissions could add about 0.5°C of warming.’ Moreover, the GHGs emitted today will achieve their full warming only in the decades to come. Thus, the warming we see today is the result of emissions made decades ago plus those within the recent past. This time lag means we already have a built-in warming process on top of the approximately 0.8°C average already recorded; even if magically all additional emissions were to stop tomorrow, the damage from earlier emissions would continue. This makes it even more imperative to succeed in peak emissions at the earliest, then to drastically reduce emissions.

The present-day global warming and related climatic changes are causing a range of adverse impacts on both the earth’s ecosystems and on the biosphere, including human societies. This paper explores a number of the overall ideas on country positions, strategies, and success within the international climate negotiations (see Bailer 2011 and Weiler 2011) for the precise case of India.

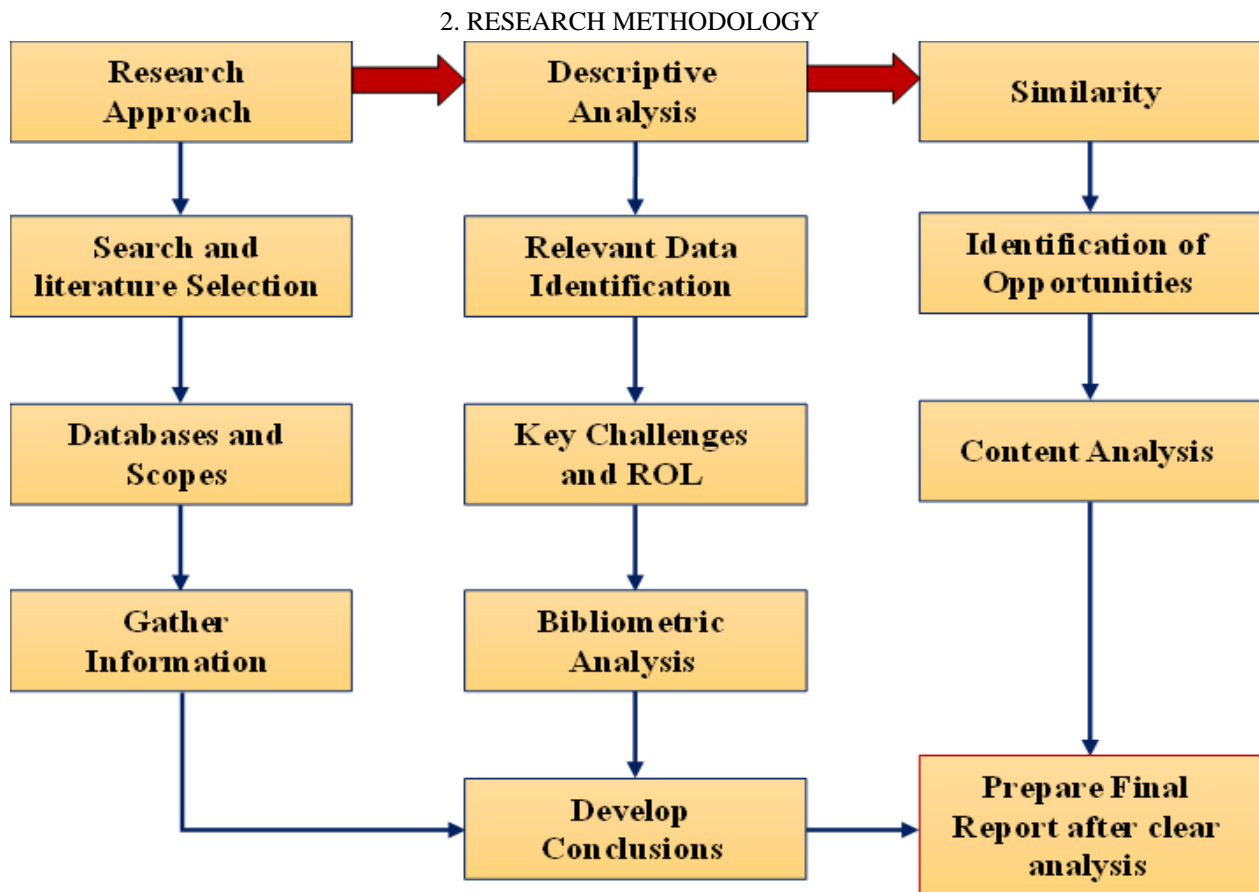


Fig 1. Research Methodology

3. GENERAL DEVELOPMENT OF INDIA'S ROLE IN THE INTERNATIONAL ARENA

The climate negotiation process through the United Nations Framework Convention on Climate Change (UNFCCC) and related agreements is the primary forum for international cooperation on stabilizing atmospheric greenhouse gas concentrations at a level that will prevent catastrophic anthropogenic interference with the climate system. The Kyoto Protocol to the UNFCCC, adopted in 1997 and entered into force in 2005, imposes emission reduction and limits obligations on industrialized country parties. The Paris Agreement to the UNFCCC, which was adopted in 2015 and swiftly entered into force in 2016, commits all states to take climate action on an equity basis and to keep global temperature rise below 1.5 °C.

The IPCC-AR4 indicates that developing countries such as India are likely to be highly vulnerable to climate change, as both the world's climate change and its impact due to both the estimated magnitude of their impacts and the lack of coping capacity in developing countries. Climate change is also likely to have serious impacts on natural ecosystems as well as traditional socio-economic systems in India, as over 750 million rural Indians live directly in climate-sensitive areas (agriculture, forests, natural resource-based artisanal occupations), and fisheries) and natural resources (such as water, biodiversity, mangroves, coastal areas, tropical forests, and grasslands) for their subsistence and livelihood.

Many of these effects are already visible in coastal Odisha, Andhra Pradesh, and Tamil Nadu. Thousands of residents of Odisha's Sundargarh district have already been displaced due to these effects. Large areas of coastal Andhra Pradesh and Odisha have suffered a double whammy: on the one hand, it has reduced agricultural productivity, and on the other, companies are buying these lands from distressed farmers at cheap rates and converting them to large shrimp and shrimp are converted into farms. Over the past 10 years, this change has become very evident in these areas. The famous case of Sundarbans islands losing 25-40 per cent of their land area is an example. Along the long Indian coast, the sea is also eating up the land. In 2009, several small towns such as Ullal in south Karnataka near Mangalore witnessed severe

and continuous erosion of beaches. The sands of the beaches are constantly being eroded by the strong waves, and the access roads close to the beaches have been washed away almost everywhere. This can be best seen in both the rapidly receding coastline in West Bengal, 24 Parganas near the Sundarbans, and East Medinipur. Rising seas mean that fishermen are losing important berthing locations for their boats, for example, drier areas for their fish and their seasonal homes.

India has traditionally been much more active in international negotiations than other countries at comparable levels of per capita income, and even more so than other large developing countries. In terms of strategic orientation, India has shown a consistently strong level of international activity in a large number of areas even if they were not directly relevant to India. Thus, it assumed the responsibility of others and voluntarily took the role of leadership. It seems that being an acknowledged leader for smaller developing countries not directly linked to one of the two larger blocs was considered a relevant diplomatic objective of the Indian elite. Thus, India based its position on highly value-weighted arguments based on fairness, equality, and justice, and based on strategic neutrality between the two major international powers., India's recent growth spurt has provided the country with exogenous energy resources that can be used to complement its traditional strategy. International recognition as an emerging economy with highly attractive markets for exports and foreign investment, a strong own export sector (especially in services), and even a need to provide development assistance to poor countries such as Afghanistan. Growing capacity has gradually alienated India significantly.

For almost a quarter-century, the world has placed its trust in international agreements to tackle the threat of climate change. A binding global treaty, the argument is that it is the best way to ensure that greenhouse gas emissions are kept at low levels to prevent dangerous climate change. Efforts to set emissions limits got off to a good start in 1992, when the United Nations Framework Convention on Climate Change (UNFCCC) was first signed. The UNFCCC has become as universal as a treaty with over 190 signatories. But momentum toward an agreement that sets binding emissions limits for individual countries soon stalled on the argument

held by most developing countries: that richer countries should bear the full burden of reducing emissions. So far, India's stance on climate change has mixed genuine concern for the issue and declined to consider limiting its emissions. On the one hand, the Indian government has long expressed its concern over the effects of climate change. It began formulating policies to support renewable energy in its 2008 National Climate Change Action Plan. The current Prime Minister of India, Narendra Modi has been vocal in drawing attention to the challenge of climate changes. Successive Indian governments have maintained that poverty reduction and expanding access to energy, not emissions reduction, should be the country's top priorities. At the United Nations Climate Summit in September, India's environment minister reiterated this stance, implying that India would not limit its emissions for at least thirty years.

4. RECENT CONTRIBUTION OF INDIA

In 2015, the Paris Agreement was finally adopted and INDC was subsumed. It was agreed that the Paris Agreement would begin in 2021. In all these post-2020 talks, developed countries have deftly avoided their pre-2020 commitments by not ratifying the Kyoto Protocol. 2015 was known as the Year of Multilateral Agreements because, in addition to the Paris Agreement, the Sustainable Development Goals and the Sendai Framework were also adopted. So 2015 proved to be a successful year.

Discussions began after Paris to finalize the rule book. Most were finalized in 2018, except for the greenhouse gas market mechanism and measurement, reporting, and verification (MRV), which are due at COP26 in 2021. The next COP will take place in Glasgow in 2021 with two sets of agendas to be discussed. The first would be to complete the implementation manual of the Paris Agreement, of which two aspects are yet to be completed regarding the Sustainable Development Mechanism (SDM) architecture and the MRV framework. The second will be to ensure smooth implementation of the Paris Agreement from 1 January 2021. Countries are expected to revise their NDCs as the current course of activities forecasts a temperature increase of 2.8-3C.

China's recent announcement of achieving net zero by 2060 comes as a stepping stone to future climate change mitigation efforts. However, political declarations make no sense unless countries share the goals they want to pursue. In contrast, India is the only country whose NDC is in line with the target of 2 °C. Another important development in the field of climate change includes Joe Biden's promise to join the Paris Agreement; This will bring the US back to the GCF fund.

India has taken a firm stand and came out very clear which is also an indication of how the developing countries are willing to make firm decisions regarding climate change. Looking at the historical responsibilities concerning the speed of emissions of various parts of the planet, India's response is far better than what's seen within the developed world. A UNEP study showed that there has been an improvement in emissions by a minimum of 26-28 billion tons by the type of commitments made. The demand for new coal power plants has collapsed since the 2015 Paris Agreement, with more than 75% of the planned coal plants being scrapped since the Paris Agreement was signed.

India also committed to the reduction of one billion tons of carbon emissions. Responsibility of the Developed Countries: India believes in the principle of 'common but differentiated responsibility, as per which the developed countries must take the primary steps to scale back their emissions drastically. In addition, they ought to compensate the poorer countries by paying for the environmental damage thanks to their past emissions. There has been an acknowledgement even within the leaders' commitments and speeches that accelerated action now's required and therefore the world has not maintained the pledges that are needed to be fulfilled to remain below a 1.5°C temperature rise by the top of the century.

5. DISCUSSION

General awareness of climate change also triggered an understanding of the vast range of severe problems India itself would face in this context. They include increased risk of flooding due to sea-level rise and high variability of rainfall, but also of droughts. This has severe consequences for agriculture and food production. Moreover, there is a serious threat to India's overall water reservoir due to

the melting of Himalayan glaciers (Mahanta 2009). As these developments will affect the whole region, they will also induce migration flows and may even have effects on India's national security threat of refugee streams from Bangladesh (Chellaney 2009). These issues are increasingly present in the public discourse.

Before we conclude let us briefly consider the preliminary achievements of India's international climate negotiation policy, as well as the challenges ahead. We will consider the achievements along the lines of the classification of objectives suggested by Odell (2000, p. 25), namely:

- 1 Economic objectives (financial gains or avoided losses)
- 2 Relational objectives (international esteem and influence on other parties)
- 3 Domestic political objectives (popularity of chief negotiator or ruling party)

However, given its high vulnerability to the impact of climate change, in the long run, the economic cost of adaptation will be very high. Therefore, it becomes vital for India that a serious agreement on global emission reduction be achieved. In addition, a second commitment period in the spirit of the Kyoto Protocol is of direct financial interest for India as a major CDM host country. If no agreement can be found on these issues, even the status quo will be at risk since international demand for CERs will shrink considerably. This would deprive the Indian industry of a major opportunity to earn extra revenues through the reduction of carbon intensity.

6. CONCLUSION

Indian international climate policy was initially characterized by defensive third-world rhetoric and a pure delivery strategy. Strategy in international climate policy was almost like areas of international negotiations like trade. These similarities aren't surprising given the common traditions, education, and cultural heritage of Indian diplomats and civil servants operating in several fields, and hence the common example is given by important leaders like Nehru.

After the economic change that began in the early 1990s, some observers noted a shift within the course of this strategy. They see the strategic orientation moving toward more frequent use of integrated

elements and greater flexibility and mobility. However, in business, for instance, many traditional values remain assertive and defensive elements. to the present day, India has often been seen to carry onto its positions, once and for all, even on coalition positions, and through which it often assumes leadership roles. The shift from pure distribution to mixed strategies has been very evident in international climate policy.

The results of the Indian case study are in line with several key arguments made by Weiler (2011) on the determinants of negotiation success. With India's recent growth spurt, India's exogenous power resources have increased making it a more relevant international player in various fields of international dialogue. In the context of endogenous energy resources, our analysis of the climate negotiation process confirms the important role of the delegation head and therefore the competence and knowledge of the entire delegation. The way India retains experienced negotiators within the delegation, even as they change jobs, can be exemplary for other developing countries to enhance their negotiating capacity. The Indian case study also suggests that the empirical results presented by Weiler (2011) for their cross-sectional analysis may underestimate the role of endogenous power resources because at least in the Indian case, The merit of delegation is only very imperfectly measured by the standard variables used.

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