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MA in International Relations - Specialisation: Global Political Economy

Climate creditor, leading actor? Dissecting India's involvement in global climate policy

Investigating the influence of India's rising CO2 emissions over the country's commitment to combating climate change

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Table of contents

Abstract

In this work, I aim at answering the question "What are the effects of India's rising emissions on the country's commitment to climate action?". Exposing India's rise as a global emitter and its new capacity to act on climate change, I evaluate the validity of this country's exemption from binding commitments granted at the first UNFCCC Conference of Parties (in Rio de Janeiro, 1992) and reflected in the Kyoto Protocol. Annexes to the Protocol allocated binding targets for emissions reductions to developed countries ("Annex 1") and an exemption from compulsory environmental action for less developed and emerging ones ("Non-Annex"). The division was based on each Party's cumulative emissions and capacity to act; in India's case, both have changed sensibly since the '90s. The empirical chapter confirms a growing external pressure from other countries for India to adopt new commitments. UNFCCC Parties recognised the necessity to include India into a new post-Kyoto Protocol regime for global climate policy to be successful in the coming decades. On the other hand, India's geographical vulnerability to the harmful consequences of global warming put the government under internal pressure to step up environmental action.

1 - Introduction

This paper aims to find and highlight the effects India's rising emissions have had on the country's commitment to global climate action. The context of Climate Conferences and negotiations will be the main ground of analysis to understand how the recent Indian prominence as a global emitter influenced its climate policy. Scholars have often focused on the impressive growth of China and its repercussions on collective environmental efforts; the literature has also dealt with the BASIC Coalition and its significance in tackling climate change. However, scholars have generally neglected India's environmental activity and its drivers.

This work will also review the divide between advanced and less developed countries in terms of climate action, traditionally based on the capacity to pay and historical contribution to global warming (Stillwell, 2009). The Kyoto Protocol represented a massive step for global climate policy; however, its framework could not extensively tackle the world's rising emission levels. The effects of the supposedly binding targets attributed to industrialised countries (Annex 1) did not outweigh the extraordinary rise in emissions of emerging powers (Non-Annex), free of any compulsory commitment.

Over the past three decades, India became the third-largest emitter of CO2 in the world (Hurrell & Sengupta, 2012). The data provided in the following chapter emphasises the magnitude of India's carbon output: whereas the historical polluters have stabilised or are decreasing theirs, India's emissions are still rising. Well before the Paris Agreement's ratification, sanctioning a global goal to keep the rise in temperature to 1.5°C, projections indicated the necessity to green India's growth, still vastly dependent on coal (Botzen et al., 2008; World Resources Institute). Once in the peripheries of environmental action, India is now a crucial actor in preventing global warming. The relevance of dissecting India's commitment to delivering appraisable climate policy derives from the fact that maintaining the world 'below 1.5°C' considerably depends on New Delhi's directives.

The literature overview investigates the main perspectives on historical responsibility and culpability of emissions from scholars, environmental organisations and social movements. India emerges as a uniquely placed country in global climate policy: the climate debt discourse portraits it as a 'victim' of global warming. It underlines its vulnerability to extreme weather events and the still relatively modest contribution to climate change (Mohan, 2017). However, India's recent emissions and its projected trajectory weaken these claims.

The observation of the main features of global climate policy and historical responsibility allows for the formulation of three main assumptions. Firstly, developed countries would try to extend some of their commitments to cover emerging powers. Less developed countries would also take distance from Parties like India, highly-polluting and rapidly growing. Secondly, India would most likely attempt to hold on to the beneficial status quo achieved through the Kyoto Protocol, rather than embracing new commitments. Only through relentless pressure and complex compromises would developing countries leave the comfort zone of the Non-Annex etiquette.

Finally, the work will observe the different interpretations of historical responsibility and other principles related to the operationalisation of climate justice. The first assumption is that India will support a pre-industrial understanding of historical responsibility, considering emissions since 1851, rather than an interpretation counting emissions after 1990. The argument for pre-industrial accountability is more convenient for India, debunking its late rise against centuries of uncontrolled pollution in the North. The second is that India has not yet manifested a definitive preference between the conceptual and the proportional understandings of historical responsibility. A conceptual understanding recognises in principle that countries with the highest cumulative emissions are the main contributors to climate change, and they have a moral obligation to lead the efforts to prevent it. Instead, a proportional understanding proposes new regimes demanding that the main polluters match their contribution to global warming with an equivalent environmental effort, comprehensive of emissions reductions and assistance to countries in need (Friman & Hjepre, 2015). India is one of the greatest carbon emitters in the world, but not a historical polluter - a peculiar situation which makes it challenging to predict its position.

The findings of the empirical chapter mostly support these expectations. Elaborating on reports of various UNFCCC Conferences, the analysis notes that India's rising emissions have drawn external pressure for it to implement ambitious climate strategies. The insistence of the EU was continuative, while less developed countries often sided with India in calling for the North to deliver on its targets. However, Parties grew concerned because of India's CO2 output, while its continued economic growth also suggested it could sustain significant environmental action. Since the '90s, India had sensibly increased both its contribution to global warming (cumulative and projected emissions) and its capacity to afford climate action. The combination of these two factors stimulated external actors to push for the country to abandon its privileged position as Non-Annex.

The analysis will also find that Modi's government has received internal pressure to step up its climate action. India qualifies as one of the most vulnerable countries in the world to extreme weather events, and the intensification of floods and natural disasters has increased the population's awareness of the climate crisis (Padmanabhan, 2019).

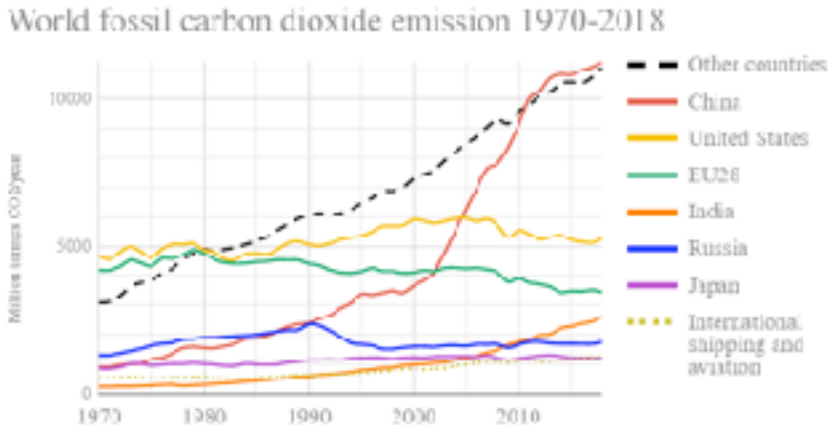
The final section examines India's record after overcoming the divide in Annexes, establishing its position as an emerging power. It covers the implementation of policies related to India's most polluting sectors, highlighting low-hanging fruits for India to improve its energy efficiency and increase the share of green energy used to fuel economic growth. The fresh start to the development of solar energy is particularly promising; however, since India's energy requirements will triple by 2030, Modi's government faces a complex task in developing sufficient renewables or low-carbon sources to cultivate a sustainable growth (Tongia & Gross, 2019). Ultimately, experts anticipate India to meet its short and medium-term targets, although some reproach Modi for lacking ambition in setting them (Climate Analytics, New Climate Institute). Nevertheless, New Delhi's commitments are compatible with a below-2°C goal for 2050, and the Paris Agreement foresees that Parties revise their goals to increase them. Since joining the BASIC Coalition in 2009, India exhibited a willingness to present itself as a responsible global stakeholder. Despite the Paris Agreement's ratification, however, the USA and Brazil's U-turns prove that commitment to climate action can be extremely volatile in global politics.

2 - Background: contextualising India's rise in emissions with data and trends

This section will cover the sharp increase in India's CO2 output over the past decades. The inclusion of China in the analysis reflects the categorisation of global climate policy, which assimilated the profiles of the two countries since the '90s. The data provided will help contextualise two processes: firstly, it will challenge the divide in Annexes adopted in Rio, supporting the claim that the emerging powers have responsibilities and a role to play in combating climate change. Secondly, it will provide a basis for the analysis of the climate justice discourse produced in the next chapter, highlighting the indisputable contribution to global warming of the industrialised countries. This work does not intend to argue that the climate debt discourse awards the Global North excessive historical responsibility; instead, it aims to observe the changing perception of this principle as the once-neglected role of India and others is recognised.

The most recent records on the largest per-country emitters of carbon dioxide see China and India occupying the first and third position, emitting the 27.5% and the 7.3% of the world's total CO2 in 2018 respectively, with the USA in second at 14.8% (Wang, 2020). The two Asian countries have been stable among the highest yearly carbon polluters since around 2005 when India overcame Japan to enter the top 5 for the first time (data: World Bank). In 2007, China overtook the USA to become the world's highest emitter of carbon dioxide (Clapp & Helleiner, 2012). India's yearly emissions doubled between 2005 and 2018, and, with around 24 billions of tons of CO2 emitted, the country accounted for circa 6.3% of the total global emissions over the past decade (data: World Bank, EDGAR).

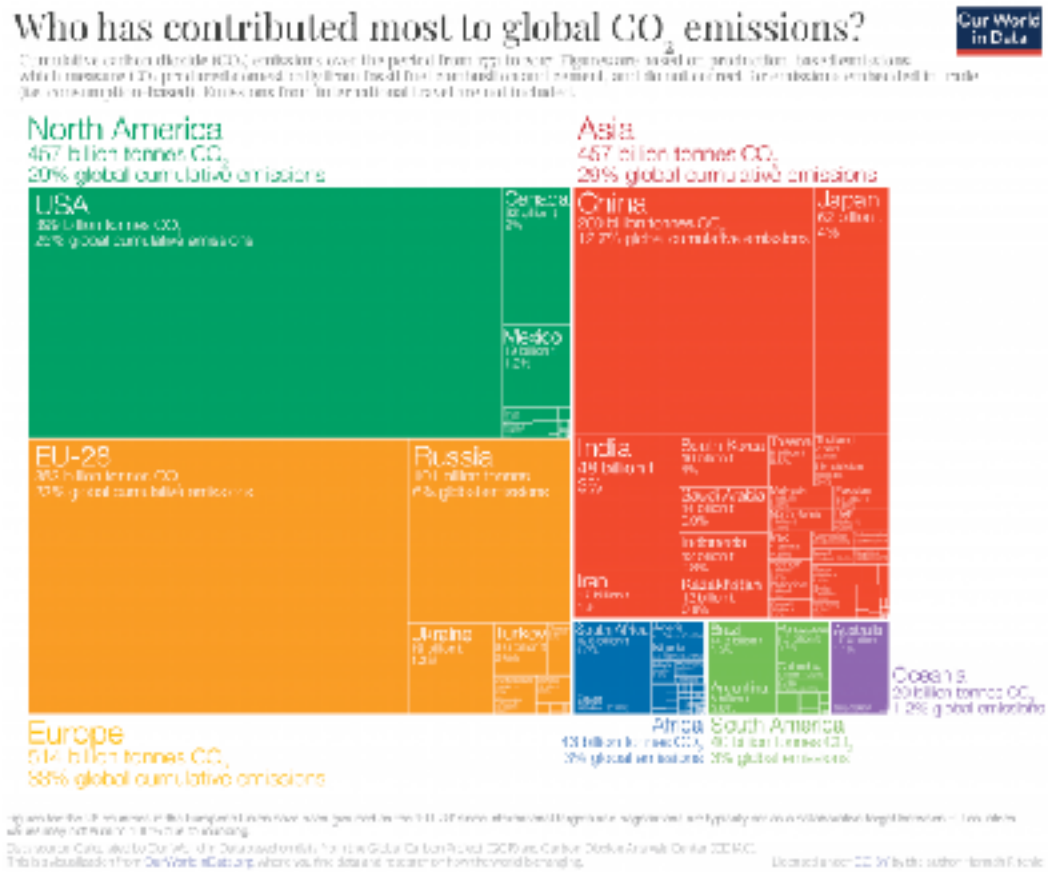
Figure 1: Global levels of CO2 emissions between 1970 and 2018



Source: World Bank

This graph provides a broader look at global CO2 emissions, highlighting China's unparalleled rise over the past fifty years. Although not as eye-catching, it also notes how no other country - or grouping - is growing as steadily and intensively as India, whose yearly emissions surpassed both Japan and Russia in the 2000s and, more recently, Europe. Understandably, neither China nor India are considered historical emitters. Nevertheless, they have arguably become the most important actors in the recent production of carbon dioxide, and their emissions curves show no sign of slowing down.

Figure 2: Contribution to global CO2 output in cumulative emissions by country and continent.



Source: Our World in Data

This infographic shows cumulative emissions from 1751 onwards, dividing the output of carbon dioxide by country and continent. The main takeaway from this data is that Asia as a continent has grown to match Europe and North America in terms of emissions, with China being the most significant contributor. The graphic, though, only considers domestic CO2 production; hence, it does not include emissions from international travel and trade. Western Europe and North America still unquestionably

stand out as the principal historical contributors to climate change. Further, emerging powers such as China have indicated Global North countries as responsible for a considerable share of their trade-related emissions through US and Europe-bound exports. Allocating accountability for CO2 produced in international supply chains remains complex and extremely controversial. Large fractions of carbon emissions remaining in the atmosphere for hundreds of years create tension for countries such as England, once the world's largest emitter and nowadays responsible for just 1% of global CO2 output (Ritchie, 2019).

Asia's rise to prominence is, as indicated earlier, a relatively recent development, traceable back to the last two decades of the 20th century. It does not come as a surprise, then, that the United Nations Framework Convention on Climate Change of 1992 only designated one Asian country - Japan - as belonging in the 'Annex 1' of Parties subject to additional obligations, supposed to take the lead in combating climate change. By agreeing to the Kyoto Protocol targets, Annex 1 countries had embraced unprecedented legal obligations to contain global warming. Parties who committed to binding reductions in emissions were the historical polluters, industrialised countries. India and other Parties were defined 'Non-Annex', and preserved from undertaking any binding commitment in order to protect their ongoing development.

Through this institutional decision, the Global North *de facto* recognised the South's need to rely on coal for energy generation (NZ Ministry for the Environment, 2005). The UNFCCC describes Non-Annex Parties as developing countries, especially vulnerable to either 'the adverse impacts of climate change' or 'the economic impacts of climate change response measures'. Among the answers to the unique needs and concerns of these countries, the UN emphasises investment, insurance and technology transfers. More recent evidence highlights how China has well overcome Japan in terms of cumulative emissions. So has India, if the analysis considers the carbon dioxide generated by international trade. Hence, contemporary developments suggest that the circumstances at the roots of this rigid distinction - capacity to pay and historical responsibility - have changed considerably since Rio 1992.

These trends did not go unnoticed. In 2008, three scholars from the Free University of Amsterdam projected in the long term the emissions of China, the USA, India, the EU28 and Japan. The study considers cumulative, or historical, emissions, which are relevant in the context of climate agreements because of the lasting permanence of carbon dioxide in the atmosphere (Botzen et al., 2008). In particular, Carbon Brief reports that around 70% of CO2 released into the air can take between 20 and 200 years to dissolve; the demise of

the rest occurs through even slower chemical processes (Clark, 2012). Per capita emissions are also often employed in negotiations or the climate debt discourse. Undoubtedly, they provide an accurate depiction of a population's ecological footprint and energy efficiency. Further, per capita emissions are a useful tool to underline the still massive difference between the North and the South[1], with the former characterised by highly emission-intensive lifestyles. However, since they do not acknowledge the number of a country's inhabitants, per capita emissions fail to address the size of its CO2 output. In the setting of intergovernmental conferences on climate, the difference between a climate debtor and a creditor has traditionally been the magnitude of its contribution to climate change, better captured by cumulative emissions (Mohan, 2017).

Ultimately, Botzen et al. concluded that, by half of this century, China would overtake the USA as the main cumulative contributor to the atmospheric concentration of CO2 (baseline: 1890). Further, they claim that by 2021 China will have higher historical emissions than Western Europe (in a conservative scenario). Indian cumulative emissions would, roughly, surpass those of Western Europe in around 60 years, without considering climate action not implemented at the time of writing. Thus, should the EU deliver on its commitment to achieve carbon neutrality by 2050, this takeover would happen sensibly earlier.

The magnitude of this takeover also lies in the ethical parameters of the debate on climate policy: the responsibility to act on climate change, is argued, will be shared by the largest emitters, and China and India should, by all means, be part of them (Ibid.). The accuracy of the projections mentioned above should not be overestimated, of course. They are long-term predictions which could be influenced by all sorts of events, from financial crises[2] to climate negotiations. However, scholars and governments have not overlooked the growing relevance acquired by emerging powers China and India.

In 2015, India's PM Narendra Modi said at the UN's COP in Paris that "Climate change is not of [India's] making". He blamed the industrial age powered by fossil fuel, lamenting how India is facing its consequences today: the changes in weather patterns damaging farmers, the intensity of natural disasters hitting entire regions (Hayden, 2016). Modi, and Indian people alike, could very well see that certainty crumble in the coming years. Ignoring its responsibilities as a global emitter could leave the country not only

[1] Even though China's and India's emissions per capita have grown by 105% and 55% since 1996, according to the Guardian and Carbon Brief.

[2] Although the rise of emissions in India only slightly suffered the 2008 global recession, according to World Bank data.

struggling to deal with floods and tides of Ganges' polluted water but also blamed for causing extreme weather events elsewhere.

In the context of climate negotiations, developed countries have challenged the exemption from emission reductions targets of countries such as China, India and Brazil (Hochstetler & Milkoreit, 2014). The debate on a follow-up to the Kyoto Protocol inevitably included the new composition of the world's main emitters. Arguably, the division in Annexes was already outdated in 2005, when the Protocol became operational: it was unthinkable for a new regime not to involve the 'new polluters'. Furthermore, the continued growth registered in India and other countries had strengthened their economies at the eyes of the Global North. Emerging powers in the South, they argued, had become able to sustain both economic development and environmental action. Their special statuses no longer reflected a necessity to be spared of 'unbearable' green targets: extending their exemption would only needlessly diminish the effectiveness of global climate policy.

The institution of the BASIC Coalition, including the three countries above and South Africa, coincided with the first crossing of the hard line of climate conferences, between the Annex 1 and Non-Annex. Between 2009 and 2011, this group showed openness to accepting a certain degree of climate responsibilities, recognising a difference between themselves and less developed countries, and introducing a third category of countries to climate negotiations. The positions and steps taken by the BASIC group will be subject of analysis in the empirical chapter of this work. In summary, though, the research for an adequate balance between voluntary commitments to reduce emissions and defending the economic performance of these fast-developing countries did not last more than a couple of years. The BASIC project disappeared soon after 2011 (Ibid.).

3 - Literature Review & Analytical Framework

This section highlights the connection between the climate debt discourse and the division of responsibilities to act on climate change at the international level. It underlines the two conditions defining the recipients of legal obligations in the Kyoto Protocol: historical responsibility based on cumulative carbon emissions and the possibility for the country in question to 'afford' climate action. It finds that, since the first COP in Rio, diverging views and interpretations have emerged on the notion of historical responsibility, the most notable of which is probably the 'special moral character' attributed to post-1990 emissions. The increasing prominence of India questioned its position as a non-historical polluter, for both its massive CO2 output and its projected growth over the next decades. Therefore, the chapter aims to structure a clear explanation of the reasons why the UNFCCC requires more stringent commitments from certain groups of countries, and to observe the conditions through which such groups could change. Consequently, the analytical framework will formulate expectable observations on India's case.

In order to do so, the climate debt discourse will be approached and dissected in its main elements:

- the divide between creditors and debtors, and the different impact of climate change across the world;
- the significance of cumulative emissions and the academic debate on the definition of climate responsibility;
- an attempted calculation of the debt in monetary terms, for the purpose of providing consistency to it.

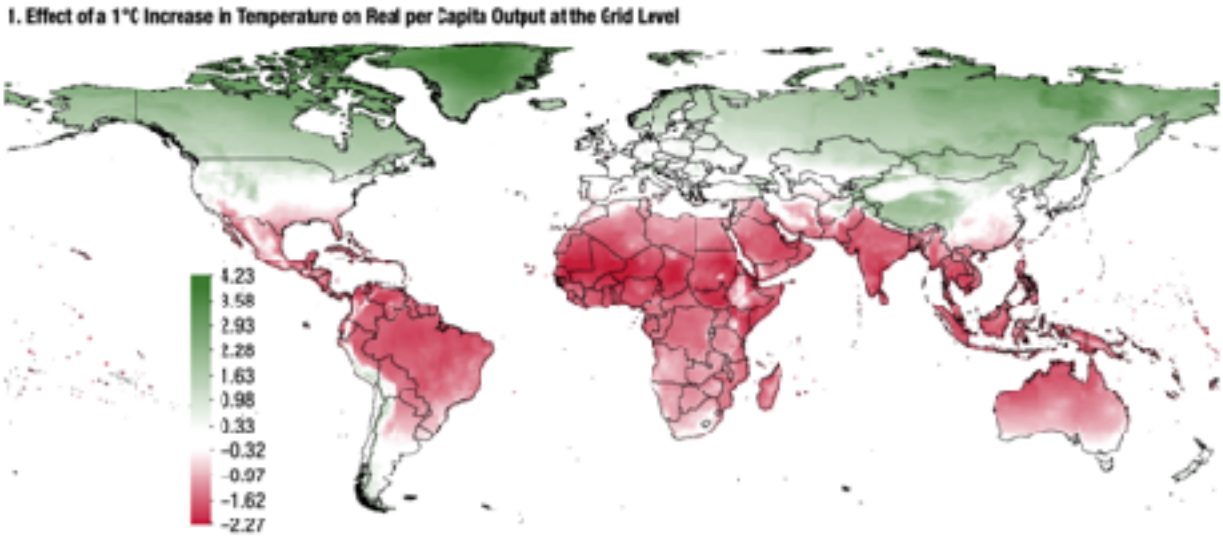
3.1 - Reviewing the existing literature: the significance of cumulative emissions and historical responsibility

I - Climate debtors and climate creditors

Petermann (2009) defines *climate justice* as the recognition that the “historical responsibility for the vast majority of GHG emissions lies with the industrialised countries of the Global North”. Two are the main takeaways from this vastly accepted definition; the

first is the historical feature of climate justice. Ever since the industrial revolution, economic growth has necessitated the use of the atmosphere's emission absorptive capacity, and advanced countries have filled up this capacity and more (Shue, 2014). Between 1850 and the 2000s, 'they' are responsible for over three times as many emissions as developing and less developed countries (Baumert et al., 2005). Hence, historical emissions are more relevant to this discourse than other parameters such as yearly or per capita emissions. The sum of the carbon dioxide produced over various decades defines historical emitters: as reflected in the Kyoto Protocol, the USA, (Western) Europe, Russia, and Japan have carried the primary historical blame for the human contribution to atmospheric GHG concentrations (Srinivasan, 2008).

Figure 3: Effect of a 1°C increase in temperature on global GDPs



Source: Euro-Mediterranean Center on Climate Change

The second feature is the geographical divide between the North and the South, which underlines the injustice of prolonged pollution. This map emphatically shows that the effects of global warming will not be felt equally everywhere. Adverse consequences, such as climate variability and rising sea levels, will mainly affect nations in the hottest areas of the planet (IMF, 2017). Most of the poorest and less developed countries are situated in those areas, and their economies are often heavily reliant on agriculture, a sector particularly vulnerable to the effects of climate change (Meyer & Sanklecha, 2017). The Climate Vulnerability Index, a tool assessing where climate change risks are most significant across the globe, supports this trend. According to CVI Heritage, three-quarters of low-income countries and a third of small island states classify as "extremely or highly

vulnerable” to climate change, in comparison to a quarter of the rest of the world (Bassetti, 2019). As can be seen from the map, India and fellow BASIC member Brazil also classify amongst the most vulnerable. The developed countries, who caused climate change, will be least affected by it when considering both environmental catastrophes and impact on their economies.

However, according to Stillwell (2009):

> “Poor countries [...] are unlikely to sit by while a wealthy minority continues to consume an excessive proportion of the Earth’s limited environmental space. Nor are they likely to ignore the wealthy’s historical responsibility for the causes and consequences of climate change”

Despite the frequent involvement of non-governmental bodies in negotiations, climate justice discourse mostly recognises states as the main actors. As Thompson (2017) notes, it would not be ethical to demand reparations to people who did not even exist when historical emissions were occurring. Focusing on states, actors persisting through generations, eludes this obstacle.

The climate justice discourse opened a debate on the existence of an ethic responsibility for historical emitters to repay less developed ones, including the consistency of the debt and the modalities for compensation. Investigating the moral character of emissions, scholars also questioned 'when' pollution became wrong or unjust.

II - Understanding historical responsibility and the culpability of past emissions

Under the UNFCCC umbrella, historical responsibility turned into a mean for the operationalisation of climate justice and equity. COP decisions have indirectly included the concept of historical responsibility up to the official acceptance in 2010, when developed country Parties acknowledged their obligation to take the lead in combating climate change (UNFCCC, 2011). However, studies and surveys at the diplomatic level highlight two different understandings of historical responsibility, with no clear winner: one conceptual, and one proportional.

The former holds Global North countries to a moral responsibility to lead the way in climate change action, basing it on considerations about earlier development and colonial history (Rajamani, 2002). This view understands climate action to be "equal" if

responsibilities are differentiated. The latter, instead, argues that a country's responsibility to act should be proportional to its historical contribution to causing climate change. Difficulties predictably arose in defining this contribution, with different indicators drawn upon and methodologies proposed[3]. The intensifying tension between the two understandings can be contextualised as a consequence of historical responsibility becoming an explicit driver of climate action (Friman & Hjepre, 2015). Gaining the upper hand in the interpretation of historical responsibility is crucial for both Global North and Global South countries, anticipating that it will be a defining factor in the development of policies for all Parties.

A significant argument on the importance of past emissions is that polluters throughout the nineteenth and twentieth centuries should be recognised *responsible*, but not *culpable*. Schüssler contends that only since the '80s scientists worldwide started to understand the negative consequences of prolonged pollution. Although today it is common knowledge, people at the time were not aware of the mechanisms through which they were causing, or contributing to, climate change (Meyler & Sanklecha, 2017). Other writers, such as Heyd, claim that such ignorance is legitimate, or, at worst, only negligently culpable. Climate debt, they argue, should not back principles of strict liability in a situation where those blamed could not foresee the consequences of their actions[4].

Kenehan shares this conviction while recognising that post-1990 emissions "have a special moral character" (Ibid.). She suggests that any large scale action (i.e., the Kyoto Protocol) should only consider historical responsibility from 1990 onwards. According to this threshold, as the data provided in chapter two shows, India and China have a more consistent historical responsibility than many Annex 1 countries.

Bell claims that, although a reparative amount is due to less developed countries, the debtors' legitimate ignorance of the consequences of their historical emissions is a valid reason for climate creditors to reduce their demands. He and Caney also highlight the controversial position of India and the rest of the BASIC Coalition. Climate debt and reparative justice often ignore how countries "that did not contribute much to historical emissions" have registered enormous growth in their output of GHG.

Butt (2017) elaborates on views of moral responsibility, "legitimate" ignorance and non-culpability. He supports Miller's idea of remedial responsibility, which differs from

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[3] Trudinger, 2005; den Elzen, 2005; Höhne & Blok, 2005; Friman & Strandberg, 2014.

[4] Not everyone agrees on this ‘Northern naivety’: Zellentin (2014) reports that, even in the 19th century, there was empirical evidence of industrialisation’s potential harms to the environment. It did not prevent the production of emission-intensive lifestyles.

moral responsibility because having caused a problem is not a necessary condition for possessing remedial responsibility for it. Bearing the burden of making up for an undesirable outcome does not imply having caused it. There could be a logical connection for owing a remedy: having benefitted from the wrongdoing, for instance. The Beneficiary Pays Principle[5] and the concept of remedial responsibility consider the moral character of past emitters' actions irrelevant.

III - Calculating a climate debt

Debt is a straightforward concept in our day-to-day lives: among actors behaving in accordance to social rules, debts are meant to be paid. Usually, the creditors are the rich, demanding payment from the poor(er). Climate debt turns this relation upside down: it is the Northern, more prosperous countries which accumulated a debt towards the poorer countries in the global South (Bullard, 2010). The predominant view is that such debt is twofold:

> "For over-using and substantially diminishing the Earth's capacity to absorb GHG – denying it to the developing countries that most need it in the course of their development – the developed countries have run up an *emissions debt*."
> "For the adverse effects of these excessive emissions – contributing to [...] damages and lost development opportunities facing developing countries – the developed countries have run up an *adaptation debt*."
> *M. Stillwell, 2008 (emphasis added)*

The emissions debt divides into two further components: mitigation and compensation (Butt, 2017). Quantifying climate debt is an extremely complex operation, given the number of its components. Still, it is possible to quantify what is arguably its most important part: the amount of CO2 or GHG emissions in excess (Warlenius, 2012). The compensation owed by the North to all affected countries is more frequently understood in monetary terms, and quantified considering:

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[5] One of two main principles supported by climate justice movements for allocating responsibility: it holds that being a beneficiary of injustices inflicted on third parties creates a compensatory duty. The other is the Polluter Pays Principle (Kirby, 2016).

1) Historical responsibility based on historical emissions;
2) The share of emissions required by developing countries to achieve economic development and the eradication of poverty (Bolivia's contribution to UNFCCC, 2009).

Especially in the works stemming from the concept of ecological debt - Martinez Alier, 2002, and Roberts & Parks, 2007 - the common understanding of climate debt sees advanced countries owing a "decolonisation" of environmental space to the developing ones. However, quantifying the debt in monetary terms becomes crucial as actors grow aware of the fact that, while domestic reductions in the Global North are long overdue, the atmospheric space 'freed' by developed countries will very likely be off-limits for the developing ones. The public opinion is seemingly coming to terms with the fact that the global output of CO2 has to decrease in order to maintain global warming 'well below' 2°C; despite the existing *climate denialism*, reports by the UNFCCC and other respected bodies reach out to wide audiences. Theoretically, though, developing countries will not be able to increase emissions sustainably, while the industrialised ones reduce theirs. Therefore, climate debt is growing even more compensatory in nature.

Paredis et al. (2008) propose to calculate climate debt on two principles: equity and sustainability. The latter is based on estimates from the IPCCC that the climate system would stabilise if GHG emissions were cut by 60% below 1990 levels. They divide climate debt in a Historical Carbon Debt, referring to inequalities between countries, and in a Generational Carbon Debt, which deals with current and past emissions above sustainability. Using their models, Warlenius[6] concludes that the North has developed a debt between 118.9 and 133,3 giga-tonnes of CO2 towards the Global South and future generations. He finds that, historically, Non-Annex countries could only have emitted around 4,4% more than they have without becoming unsustainable, too. The North, then, owes most of its debt to future generations, rather than the South.

Attributing to carbon a conservative price of circa €45,66 per tonne[7] and calculating on the basis of the amount of carbon obtained by Warlenius, the North would owe the South and to future generations a figure between €5,43 trillion and €6,09 trillion. Applying a market-based carbon pricing from the EU Emissions Trading System, the sums owed by

[6] The sole purpose of these calculations is to give the reader a broad idea of the debt in monetary terms. Neither at the academic nor at the institutional level there is consensus on its size, be it in tonnes of CO2 or billions of euros.

[7] According to the American NGO Environmental Defense Fund (Howard & Sylvan, 2015)

the North vary from around €690 billion and €773 billion to between €1,84 trillion and €2,07 trillion[8].

There is a vast difference between these two prices: the former was provided by a survey sampling economists, explicitly asked for an estimated value including the social cost of carbon. The latter was adopted by the EU for a limited number of sectors, aiming at incentivising energy efficiency without hindering the economy; its obliviousness to many other damages is a limit of green neoliberalism long criticised by non-governmental actors. According to other calculations, for instance, the UK alone owes around a trillion euros in climate debt (Jones & Edwards, 2009). This case considers the negative effects of economic conditions forced upon less developed countries by international institutions, leading to dirty investments and harsh repercussions for citizens and the climate. Hence, campaigners insist that climate debt should outweigh financial debts contracted by Global South countries with the advanced ones. These debts have impoverished the poor while providing the rich with leverage to force on them 'wicked paths to development'. They also criticise the institution of green investment funds, used to perpetuate unjust patterns of the past, tying financial aid to harmful conditions of economic policy (Ibid.).

Finally, any consideration on the quantification of climate debt should include the Green Climate Fund, established by the UNFCCC Parties in 2010 in order to assist developing countries in mitigation and adaptation to climate change (COP 16, 2010). Since 2014, contributors have pledged and committed to the Fund around $25 billion. By engaging with both the public and private sectors, the Fund aims at "mobilising around $100 billion per year in transformational climate-sensitive investments" (Green Climate Fund). However, the GCF is not an empirical example of the Global North "paying up" their climate debt, as developing countries such as Mexico and Peru also contributed to the Fund in 2014. Furthermore, the money is managed in interaction with privates, State-owned enterprises and financial markets, not directly transferred to less developed countries (Yeo, 2019).

[8] Price per tonne being 5,8€ in 2017 and 15,5€ in 2018. However, it is noteworthy that carbon pricing through the EU ETS only applies to emissions coming from specific sectors: mostly from power plants, industries and aviation, hence not covering all CO2 emissions in the Union.

3.2 - Observable implications and empirical strategy

The analysis so far focused on the concepts of climate debtors and creditors, historical responsibility and culpability, touching upon the most prominent views both at the academic level and in climate diplomacy. What emerged is a diversified and rapidly changing situation, with a broad consensus gathered around the idea that the developed countries of the Global North are the ones which contributed the most to causing climate change.

At the same time, the idea that emissions produced after 1990 have a special moral character is gaining support both among scientists and diplomats. It may seem an ephemeral difference for most Global South countries, which are less developed and whose levels of emissions do not compare to the ones registered in the Global North. However, the data presented in the second chapter underlines that not all Non-Annex countries can overlook that threshold. Defining historical responsibility based on post-1990 emissions would exempt the Global North of most of its climate debt, while recognising to BASIC countries a share of responsibilities that was unthinkable only three decades ago. At the moment, no system is in place that requires proportional binding commitments standing on post-1990 cumulative emissions. Nevertheless, as climate policy grows in importance, ensuring the establishment of the preferred understanding becomes crucial, for both advanced countries and emerging powers, to avoid undesired developments.

The process of global climate action, interaction and cooperation developed since Rio 1992 generates three main observable implications for an emerging Global South country with high levels of emissions:

1) *External request to increase climate action, accordingly to the rising emissions.* Firstly, the perception of this country's position concerning historical responsibility and climate debt would be changing as its emissions grow. Other Parties could assimilate an over-emitting country in the Global South with high rates of economic growth to A1 countries, in terms of cumulative emissions and, consequently, of obligations to act on climate change. A1 Parties would push for increasing its commitments, sharing their burden of binding climate action. Stark opposition from N-A countries is unlikely, at least for the less developed ones, whose contributions to global CO2 emissions are minimal.

2) *Attempt to hold on to the status quo*. Since governments act as interest-seeking individuals[9], the hypothetical emerging country would likely resist these arguments to protect its ongoing development. Its representatives would insist on the relevance of pre-industrial emissions, in order to scale back the relevance of their recent CO2 output. A largely populated country would likely employ emissions per capita to water down the claims on its rising pollution, pointing at the more emission-intensive lifestyles in the North. It would also argue that the need to diminish poverty justifies its enlarging rates of pollution.
3) *Eventual revision of the country's understanding of historical responsibility.* Assuming its understanding of historical responsibility - conceptual or proportional - is more complex, mainly because neither has clearly overcome the other interpretation yet. However, a newly emerging country in the Global South would likely support a proportional understanding if the historical responsibility was defined based upon pre-industrial levels of emissions. In that scenario, a proportional understanding would require the most demanding efforts from A1 countries. Instead, this hypothetical country would favour a conceptual understanding if the threshold was placed at 1990, considering emissions after that and assimilating its position to the Global North, de facto adopting the views supported by A1 countries. Finally, this country would, beyond any reasonable doubt, oppose a revision of historical responsibility in favour of a 1990 threshold. In terms of historical responsibility, emerging powers have too much to lose, and developed countries too much to gain, from this understanding.

The empirical chapter will test the case of India against these observations. The analysis will employ process tracing to identify the factors contributing to overcoming the division in Annexes, observing a clear relation to India's CO2 emissions. It will cover early discussions of a post-Kyoto arrangement, the formation of the BASIC Coalition, and the partial overcoming of the division in Annexes. A historical explanation will identify the critical events which set India on its decade-long conversion. The Indian government is well aware of the country's vulnerability to climate change, and of its concerning level of projected emissions in the medium and long-term; the third section will discuss its interpretation of historical responsibility. The increasing frequency of extreme weather events is a loud warning bell for India: one that has not necessarily changed its view of

[9] According to the view supported by realist and liberal institutionalist theory, states are 'rational egoists' which can be led to cooperate in response to external challenges. However, a state will oppose changing the agreed cooperation framework if it goes against its own interest (Hurrell, 1995)

historical responsibility, but has probably contributed to shaping its responsibilities going forward. Thus, a fourth subsection will focus on the environmental policy put in place since COP17 in Durban, observing the country's commitments to prevent climate change at this crucial stage.

3. 3 - Data

The next chapter will, first and foremost, cover UNFCCC Conferences from 2005 to 2011 - from Montreal, where discussions on a post-Kyoto system kicked off, to Durban, where Parties formulated a platform overcoming the hard line between developed countries and emerging powers. The analysis relied on official reports released by the UNFCCC as primary sources: final statements, summaries provided by the Chair, reports of the working groups, minutes of ministerial roundtables.

To deliver a complete overview, however, the work also examined articles and reports published by NGOs and social movements which attended the Conferences as observers. As expected in negotiations, talks did not always proceed smoothly: for this work to document the struggle between Annex 1, Non-Annex Parties and the emerging powers, the inclusion of these 'raw' moments of the negotiations was vital. In most circumstances, non-diplomatic sources were more detail-oriented than rose-coloured official reports.

Lastly, this research aims at capturing the evolving understanding of the principle of historical responsibility for India. To do so, it studied surveys conducted by the International Negotiations Survey at COPs in Copenhagen and Cancún. The INS is a research program conducted since 2007, in association with the Swedish Linkoping University; in 2009 and 2010, Parties' representatives answered a questionnaire about their preferred understanding of notions of historical responsibility and climate justice.

4 - Empirical Analysis of India's contribution to combating climate change

4.1 - Developed countries demand India's cooperation

This chapter will report and analyse the prolonged efforts of developed countries to extend climate commitments to India and other emerging powers[10] between 2005 and 2008, hence before the formation of the BASIC Coalition and the crucial UNFCCC Conference in Copenhagen. This subsection will show how, with the Kyoto Protocol set to expire in 2012, Parties prioritised talks about a post-Kyoto global regime to reduce CO2 emissions. As expected, industrialised countries - even the US, which notoriously did not ratify the Protocol - strongly manifested their interest towards shaping the new agreement so that the emerging powers, too, would be tied to deliver significant environmental action. Official documents from the European Parliament support the hypothesis that the EU intended on involving India and others specifically for their increasing rates of CO2 emissions.

Four UNFCCC Conferences occurred between 2005 and 2008, with COP11 in Montreal taking place less than a year after the Kyoto Protocol entered into force. The main objectives of the Conference were to clarify the Kyoto commitments, to define standard practices to measure emission reductions and to formulate ways of assisting developing countries in their environmental efforts (UNFCCC, 2005). Nonetheless, Parties also began discussions over the next climate package, which would continue the action after the Protocol's deadline. As expected, the 'unfair exemption' of emerging powers was largely debated, and Parties agreed on the establishment of an Ad-Hoc Working Group (AWG) aimed at sketching a new global agreement. The debate explicitly included the research of ways to extend the system of targeted GHG reductions to 'large developing countries such as [...] India' (Shah, 2005). Parties reassured these countries, who had evaded legal obligations until then, that new ones would not be imposed onto them without their approval. The discussions were heated, and led to the US representation leaving the meeting at one point. External observers noticed a sudden lack of agreement in global climate policy, as Parties started debating the duties for India and other polluters - 'when

[10] Since India is not the only nor the most prominent polluter in the category of the 'emerging powers', the analysis will necessarily involve interventions and statements also referred to China and other developing countries.

and in what form?'. However, Montreal's main accomplishments were anything but groundbreaking, and short-term plans for the future repeated the differentiation between Annexes (Pasztor, OECD, 2005).

Prior to Montreal, the EU had made clear its intention to include India and other powers in a future climate regime. The resolution *"Winning the Battle Against Global Climate Change"* acknowledged the 'current and historical' responsibilities of industrialised countries in causing global warming, and it stressed the obligation to assist less developed countries in adapting to its consequences. It also supported the 'fundamental' full implementation of the Kyoto Protocol; still, it claimed that these measures would gain actual effectiveness only when a UNFCCC scheme would involve 'the large economic blocs responsible for the bulk of polluting emissions' (European Parliament, 2005). The EU's action does not seem to suggest that the rise of emerging powers was a concern for the Union; it would be difficult to argue that the bloc aimed at employing climate diplomacy to hinder the economic growth of potential competitors (Parker et al., 2017). Instead, ensuring that the main polluters did not ignore their responsibilities in the next agreement was undoubtedly the EU's priority: the resolution on climate change adopted following COP11 explicitly mentions the necessity to engage with the US, China, India and more (European Parliament, 2006)[11]. Hence, the European Commission targeted the development of crucial partnerships with the future BASIC Countries plus Mexico, as expressed in the strategy for COP12 in Nairobi. In order to convince them to collaborate in climate change mitigation action, the Union was willing to aid them in the formulation of carbon-free strategies and sources of renewable energy. The main EU bodies were adamant that the right to economic development of these emerging powers ought not to reproduce 'the polluting practices of developed countries' (Ibid).

Still, sources in Nairobi reported that the 'climate of trust' between Annex 1 and Non-Annex Parties had disappeared. COP12 haltingly continued the work sketched the prior year, with more unsatisfactory results (Ancha et al., 2006). Parties found agreements on minor issues[12], but failed to propose concrete action to stabilise the climate and to make substantial progress on a post-2012 regime. Russia unsuccessfully suggested to anticipate the introduction of voluntary commitments to certain Non-Annex Parties, including India. Under pressure, the latter pushed back, demanding for the developed

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[11] "Winning the Battle Against Global Climate Change", preceding the Conference, and a "Resolution on climate change", after COP11; (P6_TA(2005)0433), (P6_TA(2006)0019).

[12] Such as improving the accessibility to the Clean Development Mechanism and extending Kyoto commitments to Belarus (UNFCCC, 2006).

countries to present their estimates for emissions reductions the following year, as well as a detailed report of the mechanisms used to achieve them (UNFCCC, 2006).

By 2006, both the EU and the US were openly pursuing ambitious and binding emissions targets for emerging powers. The EU's approach continued to be diplomatic, and cooperative; the US, instead, adopted an openly hard stance on the issue, provoking conflict and often finding itself isolated. Furthermore, the EU was more prone to climate action, also being on track to meet its Kyoto commitments. The US, on the other hand, aimed at leading the negotiations towards a new climate regime, but its representatives proved to be almost oblivious to the weakness of their position. Having dismissed the Protocol, the US was an unwelcome participant for most Parties; opposing its demands was relatively easy for India, China and Brazil, and so was antagonising America at the eyes of other countries from the Global South (Ancha et al., 2006). The emerging powers also used the platform provided by the UNFCCC to showcase their praiseworthy environmental policies, voluntarily implemented.

The different views and strategies of these two superpowers were exposed in Bali, when the EU supported the G-77, a coalition of 130 members in developing and less developed countries, against the US (UNFCCC, 2007). Especially in the very first COPs, India often aligned its views to those of the G-77 group, supporting the principle of equity in the negotiations; by 2007, the differences between New Delhi and the developing countries were becoming too big to snub (Mohan, 2017). The EU acknowledged the failure of developed countries to make significant steps in meeting their Kyoto commitments, calling on the Global North to deliver on its promises before demanding more from the South (Christoff, 2008; Shah, 2008). As much as the EU wanted to ensure the inclusion of India and China in a 'new Kyoto Protocol', the Union desperately needed the US to face its responsibilities, too. The main goal for COP13 was finding a broad agreement on post-2012 action[13]: the underlying pressure for emerging powers to assume consistent climate commitments could no longer be hidden (UNFCCC, 2007). Coming to terms with the diverging position of the EU, the US essentially went to war against all other Parties.

Non-Annex countries did not submit to the stubborn American obstructionism. A representative from South Africa stated that the US's proposals were 'most unwelcome and without any basis', given their U-turn on the Protocol and the utter failure of countries such as Japan and Russia to achieve the goals agreed in Kyoto. Notoriously, a delegate from the Guinean representation also reproached his American counterparts: "We seek

[13] Including a global target in CO2 emissions reductions and guidelines for mitigation, adaptation, technology transfers and financing (UNFCCC, 2007).

your leadership, but if [...] you're not willing to lead, leave it to the rest of us; please, get out of the way" (Gutierrez et al., 2007). The negotiating process was stressful, with India and the US making headlines for rejecting draft agreements over the new scheme to cut CO2 emissions.

Ultimately, all COP13 could produce was a Road Map, including an Action Plan to set up a long-term initiative to be finalised by 2010; the Parties' clashing views contributed to a 'watered-down' agreement. In the final, tense hours of Bali, Parties accepted a text almost against all odds, although the major actors - the EU, the US, China, India and the G-77 - had never been further apart (Christoff, 2008). Observers expressly reprimanded the dismissal of these three objectives from the final text:

- a collective target to decrease emissions by at least 50% by 2050 (baseline: 1990);
- a common goal of a cut in CO2 ejections between 25% and 40% by 2020 exclusively for Annex-1 Parties, including the US;
- the obligation to reach the peak in global emissions within fifteen years, for the level to drop sensibly afterwards.

The American delegation pushed successfully for relocating these targets in the technical footnotes, ensuring they did not have a binding nature (Bali Action Plan, 2007). However, whereas the US blatantly failed in leading negotiations, the Chinese delegation proved qualified and prone to collaboration, backing the G-77 and standing out at the eyes of other participants. Less of a protagonist was India, whose clash in views with the US prompted the mitigative intervention of the EU (Shah, 2008). But despite stark divergence - not only between the US and the emerging powers but also between the US and the EU - COP13 ultimately produced the first resemblance of a long-term commitment for emerging powers, recognising that cutting global emissions in half by 2050 would be impossible without the contribution of the future BASIC countries (Botzen et al., 2008). This commitment was, of course, vague, discursive, and only included in the preamble to the Action Plan, but in some way it represents the expectations of both developed and developing countries as the defining round of negotiations for a new framework for global climate policy was approaching.

India and the new major polluters began acknowledging the fact that the Copenhagen negotiations would very likely have a very different tone compared to Rio 1992: come 2012, they were facing the possibility of being forced to undertake practical and costly climate action (Hurrell & Sengupta, 2012). COP15 was the designated stage for an agreement on a follow up to the Kyoto Protocol: one that, for the had to include the US,

but could also not ignore the responsibilities of China, India and others. In this sense, it does not come as a surprise that COP14 in Poznań could not yield meaningful conclusions[14]. Parties progressed discussions on the adoption of a global climate change deal, set for the next COP in Copenhagen, while avoiding unnecessary overexposure.

COP14 formulated a hectic program of preparatory meetings in the run-up to COP15, but the uncertainty caused by the contemporary economic recession held back much of the discussions (Black, 2008). Many also chose to stand by until the new American Administration declared its stance on climate policy (Murphy, 2009). With the Poznań Conference underway, the EU received criticism for backtracking on environmental action: during a convention in Brussels, lobbying groups successfully won a slowdown in the implementation of its Emissions Trading System. The Union ultimately allowed generous concessions to its enterprises, widely reducing the short-term impact of the ETS. Thus, COP14 came to an end with broad scepticism over the intentions of two of the most influential powers in the world, as the EU's indecisiveness enraged NGOs and campaigners[15] (Shah, 2009). Moreover, although the possibility of a new Democratic Administration brought feeble confidence for towards a more cooperative America, the unflattering American record in COPs persisted (Black, 2008). On the other hand, observers and governmental delegates greeted the action implemented by emerging powers and Non-Annex countries. In particular, UNFCCC executive secretary Y. de Boer congratulated India, China, South Africa and others for developing national mitigation strategies to be 'implemented with measurable and verifiable support' (UNFCCC, 2008).

In conclusion, COPs between 2005 and 2008 verified the assumption that Global North countries would support and insist on involving India and others in a new post-Kyoto regime. However, emerging powers punctually challenged their action, as documented in the tense Conferences in Nairobi and Bali. These proved to be crucial and complicated summits for the coordination of global climate policy, and especially for the relationship between the Global North and the big polluters in the South. Although it opposed the adoption of binding commitments, India[16] still demonstrated sensibility to the issue of

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[14] Apart from an ill-funded Adaptation Fund, precursor of the Green Climate Fund adopted in Cancún in 2010, accessible to less developed countries for their mitigation efforts (UNFCCC, 2008).

[15] i.e., R. Webster, Friends of the Earth; J. Den Blanken, Greenpeace; R. Jaura, IPS; P. Armstrong, One Climate Net.

[16] India started a Climate Change Action Plan, aimed at advancing the generation of renewable energy through solar power and wind.

climate change implementing voluntary environmental strategies; so did China[17] and Brazil[18] (Shah, 2009).

Less developed countries in Africa and South America have, overall, sided with their fellow Non-Annex Parties, despite the differences in political and economic status. Their insistence on industrialised countries implementing measures was consistent and often supported emerging powers in lamenting American inaction. When debating a post-Kyoto regime, the main concerns for the Global South were maintaining binding obligations for the historical polluters and ensuring that the US would not avert its responsibilities. It is interesting to observe that, whereas less developed countries regularly elaborated on notions of climate justice and historical responsibility, emerging powers only sporadically referred to such principles. Most times, the soon-to-be members of the BASIC Coalition replied to American cries for increasing their commitments by highlighting the consistent failure of the developed world to deliver on their own obligations (Shah, 2008; UNFCCC, 2008). In this sense, the coming together of South Africa, Brazil, India and China during the lead-up to Copenhagen could be seen as an attempt by the emerging powers to show a united front in the coming Conference. Especially when dealing with the North's efforts to have their increasing share of CO2 emissions and their new political prominence reflected in their climate responsibilities (Hurrell & Sengupta, 2012).

[17] Concluding a highly promising COP13, China exhibited its strategy of incentives to boost renewable sources and energy efficiency.

[18] Brazil announced the goal of a 45% cut in GHG emissions by 2050, and a 70% reduction in its deforestation rate (baseline: 2002).

4.2 - India's defence of status quo: crucial summits in Copenhagen, Cancún & Durban

This subsection will explore the activity of the BASIC Coalition between its creation in 2009 and its decay in 2011. The analysis will draw upon the domestic priorities of India and its fellow members to contextualise the outcomes of COPs in Copenhagen, Cancún and Durban. As expected, India will prove to be extremely reluctant to the adoption of binding goals to reduce or mitigate CO2 emissions. Indian representatives will lament the precariousness of the country's economic growth, the still widespread poverty and the stark differences with the North in per capita emissions. Further, calls for Annex 1 countries to fulfil their targets will continue. However, India's final consent to work towards a new agreement, given in Durban, shows the limits of neorealist theory in explaining global climate policy. Even more so considering that the other BASIC members played a pivotal role in achieving the fragile consensus leading to the Paris Agreement.

The previous chapter showed how, years before the establishment of BASIC, the EU and the US had advocated the inclusion of precisely these four countries - Brazil, South Africa, India and China - in a new climate regime. India acknowledged that its future in climate negotiations was interconnected with those of other rising countries: the implementation of a new system would likely require similar commitments from all of them. Hence, they sought after confrontation and cooperation in the run-up to vital negotiating rounds (Hurrell & Sengupta, 2012).

Prior to the formal foundation of the BASIC Coalition[19], all prospective members endorsed the UNFCCC empirical findings that the rise in temperature could not exceed 2°C to prevent irreversible damage to our climate[20]. Mere weeks before the Copenhagen Conference, Brazil, South Africa, India and China all vowed to achieve mid-term objectives to mitigate their domestic CO2 output. Notably, these Non-Annex countries were partially recognising their responsibilities in avoiding the climate crisis.

India had a threefold aim by seeking the cooperation of emerging powers in the run-up to COP15. Firstly, it was looking for support against the Northern demands to approve binding targets to limit its CO2 emissions. Given its recent growth in economic and political terms, it was evident that India could better afford to implement environmental policies, compared to the nineties. Secondly, India did not want to drop its ambitions to further

[19] In November 2009, less than a month before COP15 in Copenhagen.

[20] This statement was issued at the Major Economies Forum in Italy (MEF, 2009).

progress. Finally, it coveted to prove itself as a responsible stakeholder at the global level (Hochstetler & Milkoreit, 2014). The unfolding of climate negotiations exposed the tangible tension between the first two targets and the third one.

Further, ever since the COP in Bali, the idea of China striking a one-on-one agreement with the US had been for New Delhi a reason for severe concern. Thus, increased cooperation with Beijing was desirable, even if it meant aligning to other Chinese positions. According to Levi (2010), China was probably the member receiving the most significant gains from the Coalition: three more countries supporting positions it already had. These were, namely, extending the application of the Kyoto Protocol, opposing demands for transparency in environmental measures and CO2 emissions data, and resisting more nuanced schemes than the sharp division in Annexes adopted in the '90s. A post-Kyoto regime disquieted India, too; however, India had never explicitly rejected the requirements for transparency embedded in the UNFCCC Monitoring, Reporting and Verification system before 2009. Neither had Brazil and South Africa (Ibid.).

Promising signs over a new climate regime came from the Obama Administration, expected to present a more collaborative America. However, negotiations in Copenhagen could only produce a dubious Accord, struck in a late private encounter between BASIC Countries and the US. The final text had no legal standing under the UNFCCC, and several Parties decided not to recognise it. Ultimately, it was a broad declaration of intents, renewing the vow to maintain global warming below 2°C. Notably, though, Parties could not find consensus around any post-Kyoto commitment for either industrialised or developing countries. The deadlock reflected the Northern resolution only to adopt more commitments alongside the new big polluters and the latter's determination not to restrain their emissions with binding targets. Parties only agreed to work towards listing emission reduction targets and mitigation action by BASIC countries for 2020 (UNFCCC, 2009). The press referred to India and its allies as 'the villains of Copenhagen', stressing the failure to achieve a balance in limiting their involvement in climate action and imposing their image as reliable global stakeholders (Leahy, 2009).

Copenhagen did not prove beneficial for the relationship between India and the EU, either. The Union, not even included in the vital last-minute confrontation, had the explicit goal of striking an agreement to guarantee 'collective reductions' after the expiration of the Kyoto Protocol. Brussels made clear to New Delhi that, through the Bali Action Plan, the BASIC Countries had already consented to implement ambitious climate action (European Parliament, 2009). The Action Plan specified that Non-Annex high emitters were not subject to binding commitments, but only to voluntary ones. However, it concluded that

BASIC Countries, signatories of the BAP, had to assume their responsibilities as significant polluters (UNFCCC, 2009). India had envisioned the possibility to command its development without external interference: the goal was not to avoid climate action altogether, but rather to determine a global carbon budget which could award the country room for further growth (Hurrell & Sengupta, 2012). Despite the EU's best propositions[21], Copenhagen was a failure, and a new climate accord looked all but impending. Participants lamented a worrying lack of ambition as the UNFCCC initiated a turn from a system of legal obligations to a regime under which each country could spontaneously determine their climate goals and their share of cut in CO2 emissions (Leahy, 2009).

Relatively to the previous round of negotiations, talks in Cancún progressed somewhat cautiously. The major accomplishment of COP16 was extending the recognition of the Copenhagen Accord to all Parties. In the final text, industrialised and developing countries agreed to implement a post-Kyoto system for reducing emissions, affecting both categories (UNFCCC, 2010). If the Cancún Conference could win approval for the Copenhagen Accord, however, it was through the closed-door meetings organised by the Mexican presidency. Many Non-Annex Parties vocalised discontent for this conduct, which did not allow amendments to the views of India, the US and China. The Bolivian delegation notably blamed the Chair and these Parties for composing a 'disastrously unfitting agreement, based on an undemocratic process, and containing inadequate commitments' (Arnaboldi, 2020). Despite these accusations and the reproval of environmental organisations, the Mexican presidency adopted the text, considering one rejection insufficient to jeopardise the consensus (Khor, 2010; Narain, 2010; Cariboni, 2010).

COP17 finally produced a significant step forward. The Durban Conference delivered the fundaments of a new binding system, which, Parties agreed, would come into force with the start of the new decade. The deadline for defining the post-Kyoto regime was the 2015 Conference in Paris (UNFCCC, 2011). Parties managed to cut a compromise, the Durban Platform for Enhanced Action (ADP), notwithstanding India's hostility; until the last stages of COP16, the third-largest CO2 emitter in the world insisted that its economy could not sustain mitigative policies. These affirmations alienated India to other participants and especially to the poorer, vulnerable countries: a delegate from the G-77 group emphatically declared that "while they develop, we die" (Horner & Peek, 2011).

[21] Going into COP15, the EU formalised the aim to reduce its emissions by 20% before 2020, opening to the eventuality to raise the cut over 30% if the US and the BASIC Coalition committed to comparable targets (European Parliament, 2009).

Further, the host country South Africa showed more openness to increasing its commitments, alongside Brazil, and the more prosperous China did not hide behind India's excuses, either (Hochstetler & Milkoreit, 2014). Without the support of the other BASIC countries, India had to face alone the demands of Parties from all Annexes and, ultimately, it gave in to the pressure and consented to the ADP.

With more and more Parties urging for a breakthrough in the development of a new climate regime, India had no option but to relinquish its commitment-free status. The argument of Northern historical responsibility, however valid, could no longer entirely shield the country from its climate duties going forward. Both New Delhi and Beijing knew that neglecting their position as major emitters would hurt their image in the international community. By 2012, the BASIC Coalition was dismantled. Its members had employed it to answer the insisting demands of the North collectively, presenting themselves as sensitive to the views of the global community (Ibid.).

The BASIC Coalition could not realise its primary objective, namely maintaining complete control over the commitments of its members within the UNFCCC. However, it kept some distance from the Global North, introducing a third category in the understanding of UNFCCC Parties:

- *Industrialised countries*, for their unquestionable historical responsibility, have to reduce their CO2 output sensibly. They also ought to support less developed and vulnerable Parties with monetary flows and technology transfers;
- *Emerging powers* only recently classified as significant emitters. Prolonged economic growth and increased political prominence enable them to implement mitigative policies and play a role in preventing the climate crisis;
- *Developing countries* remain negligible contributors to climate change, but also the most vulnerable to it. Historical responsibility requests not to leave them behind in the transition to carbon neutrality.

The secondary outcome of COP17 was the brief extension of the Kyoto Protocol, which, for Global South countries, was the sole possibility to secure a few more years of legal, environmental obligations for Annex-1 countries. However, it was all but a significant result, as developed Parties could spontaneously decide whether to extend their targets or not. Furthermore, the cut in emissions required by the extended Protocol was meagre.

Japan, Russia and Canada all opted-out from this second phase, inviting criticism from NGOs and Non-Annex Parties[22] (UNFCCC, 2011).

The power struggle between developed countries and the BASIC Coalition negatively affected the aims of the Global South. The Conferences indeed elaborated on how to assist low-income countries, with Parties agreeing on $30 billion funding for operations implemented before 2012 at Copenhagen. Including the possibility to increase it to $100 billion annually by 2020, Parties laid the foundations for the Green Climate Fund agreed the following year and presented in chapter 3 (UNFCCC, 2009). Moreover, a significant accomplishment was the official acknowledgement of the principle of historical responsibility. Although UNFCCC resolutions had traditionally supported notions of climate equity, the compromise struck in Cancún was the first to mention this concept formally (UNFCCC, 2010). As the fundamental recognition of historical responsibility came, India and the 'climate creditors' had never been more distant in terms of objectives and historical contribution to global warming.

The lack of cooperation and India's indecisiveness left many representatives from the South concerned and disappointed. The Copenhagen Accord enraged audiences by sidelining the CBDR principle in favour of an undifferentiated system, which did not acknowledge historical responsibility (Leahy, 2009). Non-Annex Parties disputed the very nature of the Copenhagen Accord, which emerged from a closed-door meeting between the US and the BASIC countries. Other delegates were 'visibly upset at not being involved' (Shah, 2009). Further, NGOs and environmentalists vehemently opposed the Accord because it provided no guarantees that the cuts in emissions would be consistent enough to prevent global warming (Carrington, 2010).

Ultimately, the negotiating process concluded in Durban was a definite success only for developed countries. Apart from prolonging Kyoto, emerging powers had undone the brief Coalition and accepted to increase their responsibilities under the UNFCCC umbrella. Despite its lack of action in the 2000s, the North managed to direct the path towards Paris on its terms: the Agreement found four years later followed the directions set in the ADP.

Mentioning CBDR was a key concern for India in Durban[23]; however, the final text blatantly ignored it. As a chief negotiator from the American delegation excellently put it, "there is no mention of historic responsibility or per capita emissions. There is no mention of economic development as the priority for developing countries. There is no mention of a

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[22] Bolivia's P. Solon described the second period of the KP as an appropriate expression of the 'Zombie-like' status of climate negotiations.

[23] Reported by Oxfam's Policy Officer T. Gore, observer to the Conference.

difference between developed and developing country action". Nearly two decades on from the inaugural COP in Rio, India had crossed the hard line between Non-Annex and Annex-1.

4.3 - The Indian perspective on historical responsibility

This subsection will focus, in particular, on India's view of historical responsibility. COPs in Copenhagen, Cancún and Durban were crucial in forming a new position in global climate policy, as the division and commitments adopted in Rio no longer suited effective climate action and the role of emerging powers. To achieve a new global regime, Parties had to confront again climate equity, one of the Protocol's defining principles, and find an answer for this new category. As assumed in the methodology, the survey indicates that Indian representatives most likely supported a pre-industrial threshold to define historical responsibility - 1851 rather than 1990 - and voluntary nature for the commitments to climate action. It also finds that the other expected outcome is supported by empirical evidence: European governmental representatives rejected both a proportional understanding of historical responsibility and allowing emerging powers to only commit to voluntary goals. The data is provided by INS, which submitted a survey to around 400 governmental representatives and more respondents from the civil society.

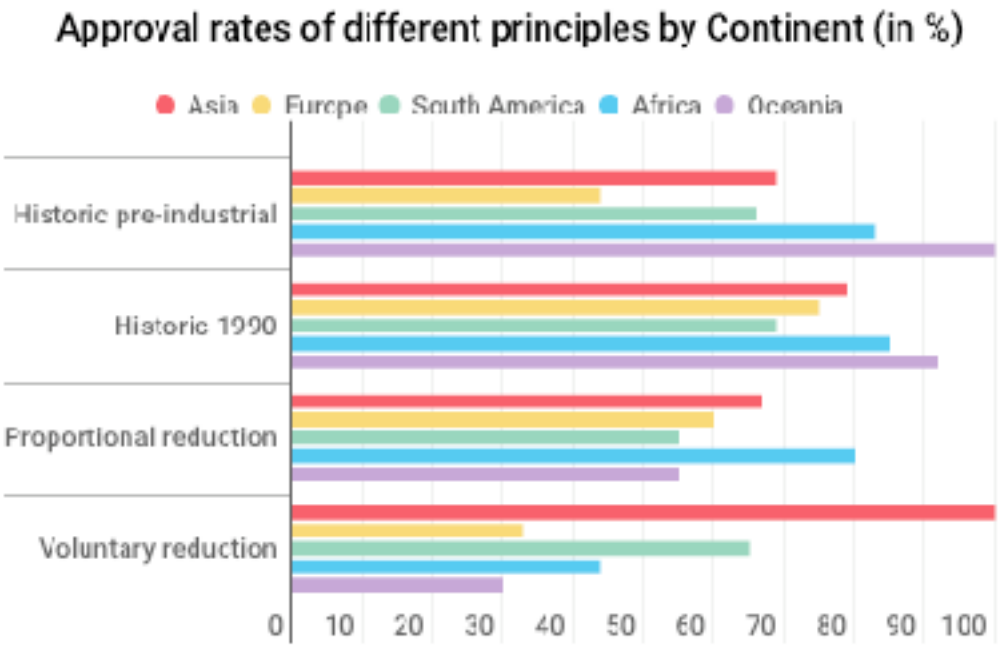
Friman and Hjepre (2015) investigated these answers to identify their significance and consequences for climate change negotiations. This study will draw upon their work and the data they collected, but with a different goal. Rather than concentrating on the most supported interpretation of these concepts, this chapter will confront the answers based on the provenience of the respondent. Unfortunately, due to privacy policy, the data collected by INS does not report the country of origin of the respondent. However, it does divide answers based on the respondent's continent of provenience and Annex to which his/her nation belongs. This data will provide observations to be verified by confronting them with public statements and domestic policies. Hence, the analysis will oversee the implementation of environmental policy put in place since the COP in Copenhagen: for India, limiting its emissions is the most effective way to avoid classification as a historical emitter.

INS queried participants on the most suitable threshold defining historical emissions[24]. Over three-quarters of Asian respondents manifest approval for a post-1990 consideration of historical responsibility, while the endorsement for a pre-industrial understanding is only slightly below 70%. The recent relevance of India as global polluter would be diminished by a pre-industrial understanding, unquestionably New Delhi's

[24] Referencing a special moral character, motivating and justifying an ethical responsibility to assist developing countries while reducing domestic emissions (INS, 2015).

preferred interpretation. Early-industrialised Russia and Japan, on the other hand, would see their statuses as emitters decreased if the UNFCCC embraced a post-1990 approach. Likely, these opposite views among the main Asian actors (four including China, presumably siding with India) cancelled each other out, providing a mixed response, with no clear winner.

Figure 3:



Source: INS

Support for a pre-industrial understanding of past emissions is below 50% in Europe, while a post-1990 view reaches three-quarters of the consents. Both positions reflect an explicit goal for the EU: ensuring that India and other late polluters face their responsibility to decarbonise the atmosphere. The situation is more complicated in South America, where different actors have diversified interests[25], and the two views, albeit opposite, show very similar levels of agreement.

[25] Likely, the region's 'big' polluters pushed for a pre-industrial understanding: Brazil, Mexico, Argentina and Venezuela (data: CDIAC). Bolivia, Ecuador and Uruguay, should be more prone to supporting a 1990 threshold.

In the previous chapters, holding advanced countries accountable for over-emitting emerged as the main priority for the Global South. Especially in Durban, when the Kyoto Protocol was approaching its expiration, and uncertainty reigned supreme over the shape and scope of its follow-up. Bolivia's lead negotiator, Rene Orellana Halkyer, was particularly fearful of the sidelining of the CBDR principle: "The Convention of Climate Change is some kind of constitution of climate change of the world", he said at COP17. "We are making disappear the legal framework. [It] is being killed by those who don't like the Kyoto Protocol" (Shah, 2012). Those opposing a new Kyoto were Canada, Russia, Japan; all of them went on not to sign its extension. Bolivia and more developing countries had every reason to be concerned about the missing commitments of many advanced Parties.

Further, remember the "while [Indians] develop, we die" accusation in Durban: nothing suggests that less developed countries did not want countries like India to be more active in environmental action. As evidenced by the map in the previous chapter, most Global South countries are just as vulnerable as India to intensifying extreme weather events. However, their respective past, present and projected emissions are incomparable in size to India's, and less developed countries began to recognise the latter's increasing weigh in ensuring our planet remains below 2°C. A pre-industrial position would narrow the pool of big polluters to just Western Europe, Northern America, Russia and Japan, while settling for post-1990 CO2 levels would also include in the mix the BASIC countries. More nations would be labelled historical polluters, a tag that traditionally comes with increased commitments to climate action. At the same time, most countries in South America, Africa and Asia would see their status unchanged. From the viewpoint of the Global South, giving up the CBDR principle might be worse than reconsidering historical responsibility post-1990.

The INS also interrogated participants about their agreement on a proportional interpretation of historical responsibility (PHR): only Africa (80%) approves of PHR more than Asian countries. This infographic also highlights the difference between governmental A1 and N-A Parties on pre-industrial or post-1990 PHR. As expected, N-A respondents have generally voted in favour of PHR, compared to the A-1 countries, mostly supportive of a conceptual understanding. In particular, the study shows that governmental support for PHR among A1 countries doubles or almost triples[26] when considering CO2 emissions from 1990 onwards rather than pre-industrial levels. At the same time, N-A countries

[26] Increasing from 15 positive answers to 20 in 2011, and from 15 to 43 in 2012.

confirm the tendency to either maintain a similar level of complacency to a 1990 threshold or vigorously dissent[27]. Overall, N-A respondents seem to favour a pre-industrial understanding of PHR. Evidence suggests that the N-A Parties refusing PHR based solely on recent emissions were the ones with most to lose from it in terms of freedom to pollute, and India is amongst them. In fact, Indian PM Modi expressed his prowess towards a pre-industrial understanding of historical responsibility, claiming that global warming "is not of our making", keeping distance from the traditional polluters of the North. The proportional understanding of historical responsibility based on post-1990 emissions is by far the interpretation bestowing upon India the most significant commitments: unsurprisingly, then, New Delhi reiterates the relevance of pre-industrial emissions.

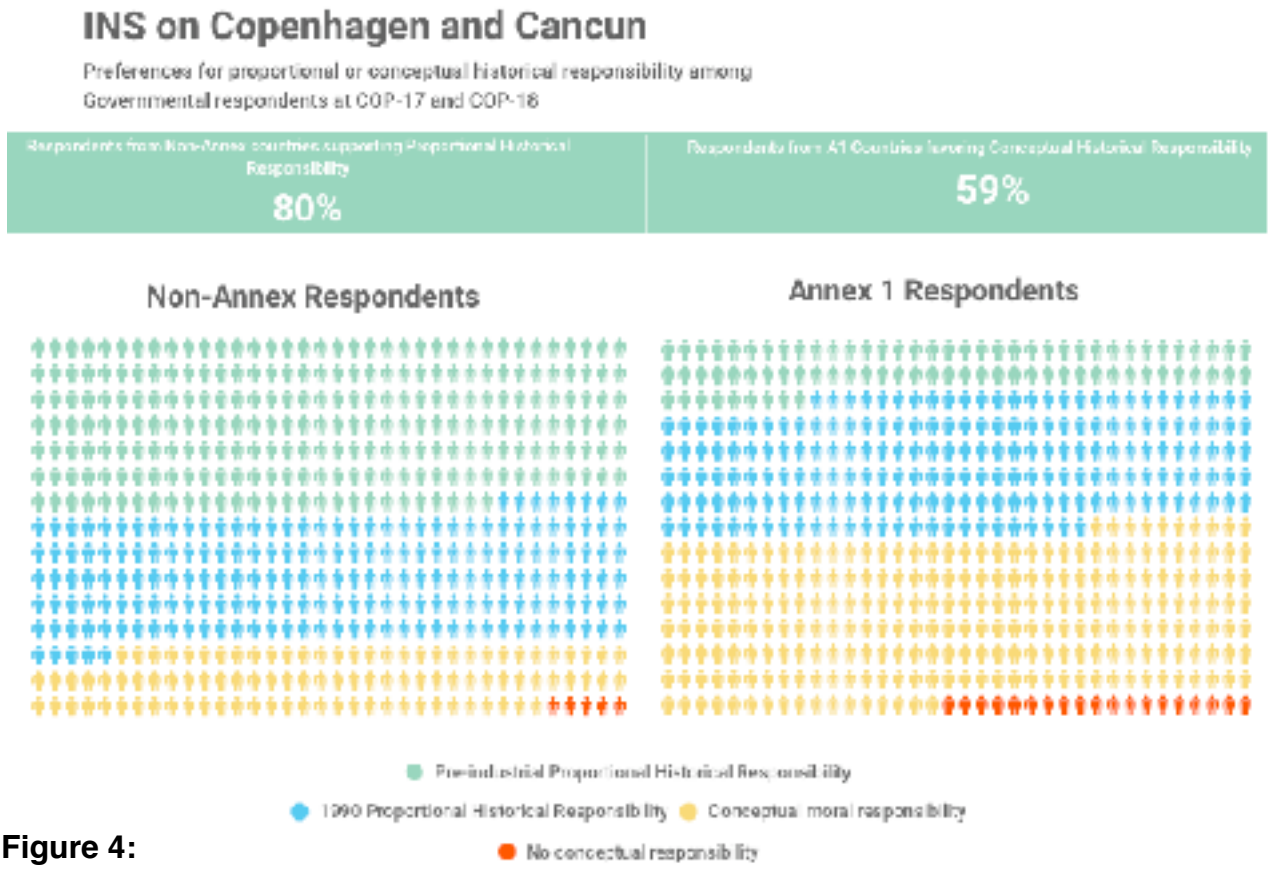


Figure 4:

Source: INS

Although scholars note that PHR is an increasingly popular understanding, UNFCCC Conferences traditionally pursue the highest possible level of consensus, if not unanimity. Negotiations were then unlikely to lead to an arching new system, implementing

[27] With a slight increase from 36 to 41 positives in 2011, and a neat decrease from 54 to only 20 in 2012.

strict, proportional historical responsibility. The struggle to define the newly-recognised principle of historical responsibility will continue until one view definitely edges the other.

So did the conflict between the two currents of thought on the nature of cuts in emissions: binding or voluntary. The survey reports no surprises here: the totality of Asian respondents, and thus India, support spontaneous pledges over binding goals. This result confirms the observations made over the past chapters on India's contribution to the formation of a post-Kyoto regime and the continued insistence on voluntary commitments. As expected, two-thirds of European governmental respondents oppose this modality.

However, the Paris Agreement is not far from a voluntary system. Environmentalists, Global South countries and others harshly criticised its pledge-and-review character and the subsequent lack of guarantees it provides. The PA makes it mandatory for the Parties not to regress on their domestically determined contributions, allowing reluctant countries to delay substantial efforts (UNFCCC, 2015). Given India's unflattering behaviour in Durban, there were reasons to doubt the country's dedication to the cause. In 2015, PM Modi stood in Paris, mourning the 'prosperity and progress of an industrial age powered by fossil fuel' for causing the global warming that was hitting his country through floods, droughts and climate variability (Hayden, 2016). Despite his laments, his country is still heavily reliant on coal; and, as the following section will show, this dependency is not expected to end soon. According to several independent sources, India's commitments are on track to meet the 'below 2°C' ambition of Copenhagen. They are not entirely consistent with the below 1.5°C limit supported in Paris, but there is room for improvement in the long term. Nevertheless, so far, Modi has refused to adopt an emissions cap, as other developing countries did. Instead, the PM pledged, among other goals, to reduce emissions relative to GDP. Logically, the motivation behind this decision was to protect the county’s development, pledging comparative rather than absolute reductions. Unsurprisingly, then, despite the introduction of pro-active environmental measures, India’s CO2 output kept growing: since COP21, India has become second only to China in coal production, as well as the largest importer of coal in the world (data: International Energy Agency).

Finally, the study shows an overall agreement on building the new framework of binding commitments on the principle of 'capacity to pay'. Both Asian and European representatives approved the idea of tailoring all Parties' goals on the action they could afford to pursue. Of course, there were stark differences in what they perceived as 'affordable action'. The principle of allowing equal per capita emissions for all Parties also registered meagre opposition. The idea that a comparable, if not equal, level of per capita

emissions should be allotted to all countries is nothing new. Chapter two presented the emission debt, the component of the climate debt comprising the Northern occupation of atmospheric absorptive capacity the South needed for its development. It is a fundament of the climate debt discourse, and the division in Annexes perpetrated in the '90s reflects this understanding: higher emissions anticipate a better quality of life, and negating the right to emit implies blocking economic development. India has often displayed its support for this view. Successful climate action, though, can not be lead by such reasoning: the only sustainable way to reach equality in per capita emissions is through substantial reductions in the Global North. There is no answer for the Global South to increase almost exponentially its per capita emissions without irreparably disrupting our climate; the only possibility to achieve sustainability and development is switching to a system where the quality of life can improve through lower emissions. Thus, the prospect of a continuatively coal-reliant growth in India concerns environmentalists, aware of the enormous challenge in front of New Delhi's government. Modi has every reason to underline the necessity for fast-growing India to overcome poverty[28], especially when many developed countries are far from leading by example. As the European Parliament put it, only by rejecting polluting practices, advanced countries can expect that developing countries will not repeat them (2006).

This subchapter analysed the indecisiveness around the role and moral duties of emerging powers, both internal and as perceived by others. Answers often reflected the competitive nature of negotiations, showcasing an ever-present pursuit of self-interest. India confirmed its prowess towards models based on pre-industrial historical responsibility and on voluntary climate commitments for Global South countries. The next section will dissect India's environmental action after COP21 in Paris. Under the PA, Modi was essentially free to formulate the most suitable policies for the country's priorities. These will indicate whether India still perceives itself as a Non-Annex party, or if it is embracing its responsibilities as the world's third-biggest emitter of CO2.

[28] Despite a neat decline in poverty rates, two-thirds of people in India still live on less than $2 a day, according to Canadian NGO SOS Children's Villages.

4.4 - The Indian ecological dilemma

The following subsection covers the main challenges for climate policy in India, observing that Modi's government put the country on the path to meet its 2030 goals. These objectives, however, could definitely be grander. The analysis will focus on the implementation of policies related to the country's three primary sources of GHG emissions: energy production, industry, agriculture and food. It will find that, despite resolute domestic action, India needs to enhance its greening attempts if it is to achieve a below 1.5°C-compliant status. It will also cover faults in, and possible improvements to, India's current strategies.

Climate awareness in India has grown sensibly since the turn of the century. As reported by the World Value Survey, 58% of Indians now believe that protecting the environment should take priority over economic development. In 1999, only 20% of the respondents had agreed (Padmanabhan, 2019). Droughts, heat-waves and floods unquestionably contributed to shifting this perception. According to the Indian Institute of Foreign Trade, the decisive moment in which Indians understood the country's vulnerability was the flash flooding at Kedarnath, which killed over five thousand people[29]. Further, between November and December 2015, almost 2 million inhabitants in south India were displaced by surges, according to the International Federation of Red Cross. Global warming threatens habitability across the whole country, with studies warning that floods once occurring every hundred years could happen up to ten times a year from 2020 onwards (Hayden, 2016).

PM Modi did not remain indifferent to his country's increasingly worrying problems. At the beginning of his mandate, he received widespread criticism for the dilution of environmental legislation[30]. Nonetheless, Modi eventually ratified the Paris Agreement and set the following commitments for 2030:

- Keeping the emission intensity of GPD 33% to 35% below 2005;
- Increase the non-fossil share of cumulative power generation capacity to 40%;
- Ensure that India's per capita emissions never exceed those of the developed world.

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[29] CBS, 2013: "India raises flood death toll reaches 5,700 as all missing persons now presumed dead".

[30] Allegedly allowing influential companies to land grab peasants in rural areas - Mohan, 2015: "Narendra Modi's war on the environment".

In 2018, analysts[31] already acknowledged that India was going to exceed these targets, suggesting to promptly revise them. Then Environment Minister H. Vardhan pledged in Poland: "if there is a need and if the whole world is acting on it, I can assure you India will be leading in this, too". From COP21 onwards, New Delhi undoubtedly manifested more willingness to increase its climate targets than in Cancún and Durban. However, it was still demanding that advanced countries fulfilled and revised theirs in return.

In August 2019, PM Modi visited French President E. Macron, officially announcing in a joint statement the intention to step up both countries' climate action plans for the first time since Paris (Goswami, 2019). In 2015, Narendra Modi refused to recognise that India was contributing to causing climate change, denouncing the role of early-industrialised countries. Four years later, alongside Annex-1 Party France, he pledged to increase nationally determined commitments to prevent "the biggest challenge before mankind".

Even before the COP in Paris, Power Minister Piyush Goyal had set the goal of quadrupling the country's reliance on renewable sources to 175 GW by 2022. More recent estimates confirm that India is well on its path, claiming that the country could produce even 450 GW through renewables by 2030 (Tongia & Gross, 2019). The data shows encouraging signs that India will deliver on these commitments, but it also suggests that the initial goals lacked ambition - although it was widely predictable, given the pledge-and-upgrade nature of the Paris Agreement.

As highlighted in chapter 2, CO2 emissions in India kept growing even after the PA's ratification. In 2018, 68% of the total emissions in the country came from energy production, a sector still majorly dependent on coal (data: World Resources Institute). The government is pushing, quite successfully, for greening electricity generation, but at the same time, experts anticipate India's energy demand to triple by 2030. Even if India does exceed its Paris targets, it will still generate over 55% of its power through coal sources. According to the IPCCC, in order for Parties to meet the 1.5°C target, coal-sourced energy needs to be phased out by 2040 at the latest. India is hardly doing enough to reduce its dependency on coal, as both a producer and an importer.

Between 2015 and 2018, investment in renewables topped the one in fossil fuel, with the solar sector reaching high levels of price-competitiveness. Since 2016, the cost of solar power production decrease between 50% and 70%, according to different sources

[31] Such as the New Climate Institute, Climate Analytics and the Australia-based Institute for Energy Economics and Financial Analysis.

(Climate Action Tracker; Tongia & Gross, 2019). The growth of India's renewables market is impressive, considering its humble base[32]. Indian enterprises have, since 2013, mobilised massive amounts of money in private investment, with feeble streams of foreign capital. The fact that the renewables industry "is a heavily Indian affair" underlines India's new position in global climate policy (Ibid.). Investment funds and most green initiatives from the North are directed elsewhere, assisting less developed countries struggling to cope with this action on their own. In years to come, India's tendency to shield its private sector from FDI could support the country's self-reliance in climate policy (Wignaraja & Sirivardana, 2004).

Nevertheless, the country's coal-fired operational capacity is currently over 200 GW, with plans to increase it to 300 GW. Despite doubling its coal tax three times between 2010 and 2018, it still only accounts to 400 rupees per tonne, circa $3.2. The coal tax has generated $12 billion over this period, funding the National Clean Environment Fund aimed at feeding into renewable energy projects. However, in 2016 alone, subsidies to coal amounted to $2.3 billion (Climate Action Tracker). India needs to remove this dichotomy to overcome its reliance on coal, greening both the energy and the industrial sectors.

There is room for improvement in agriculture, too, which accounts for 9% of Indian CO2 emissions. Despite the frequent shortages, India is a net exporter of water, due to the excessive quantities employed for its agrarian exports. Further, researchers are pointing at the food and farming industry as bottlenecks for emissions reductions. Rice is by far the most grown cereal in the country, with over two million hectares dedicated to its farming. Wheat is second, with just over one million hectares. Unfortunately, rice is also by far the most ecologically harmful cereal, with a carbon footprint of 23.9/Ha, four times higher than the second most polluting, sorghum[33] (Sah and Devakumar, 2018). Experts argue that the current policies encourage farmers to grow water-intensive crops even on the least-suitable soil: subsidies for food and fertilisers aliment crop burning and worsen shortages. Directing these workers towards a more responsible usage of inputs such as water and chemical composts could benefit the whole agricultural sector, lessening its carbon footprint (Ibid.).

Finally, there are some low-hanging fruits to exploit. The constant growth in yearly CO2 emissions is mostly due to increasing economic activity, urbanisation, rising demand

[32] According to the US Energy Information Administration, in 2013 renewables only made up to 3% of the country's energetic consumption.

[33] 5.9/Ha over 700'000 hectares, the third most grown cereal in the country.

for energy. Still, the extremely energy-inefficient practices of the poorest tiers of the Indian society unnecessarily enhance pollution levels. Two-thirds of Indian people live in rural areas, and 70% of the population makes daily use of stoves to burn pellets, waste and wood (data: World Bank). Networks of NGOs have developed numerous strategies for rural development in areas such as Tamil Nadu, Uttar Pradesh and Bihar. Low-carbon plans could reduce poverty while sensibly improving GHG pollution and decreasing the likeliness of diseases such as cancer and pneumonia. Among the suggested measures, the Environmental Defense Fund suggests replacing conventional stoves with methane-burning ones, installing solar-powered lighting and promoting climate-smart farming techniques (Ahuja & Kritee, 2018).

5 - Conclusions

This research focused on the evolution of India's stance towards committing to tackling global warming. Ultimately, the country's rising emissions are the causal factor behind its gradual assumption of responsibility in preventing climate change, triggering several contributing conditions. The analysis examined and stressed the growth of India's CO2 output in the past thirty years. The confrontation with the emission levels of other main polluters provided context for the significance of India's rise, set to gain more and more importance in the coming decades - with its CO2 emissions expected to keep growing along with the building urgency to deliver concrete climate action.

Then, the work considered the country's participation in climate conferences, with a focus on those held under the UNFCCC umbrella. The overview of COPs from Montreal to Durban confirmed two of the expected observations provided in the analytical framework, as India's increasing relevance as an emitter put the country under external pressure to relinquish its privileged status as a Non-Annex Party. Firstly, advanced countries, most of which had consented to binding targets under the Kyoto Protocol, began questioning the emerging power's exemption from climate obligations. The EU, as documented, was concerned about the large polluting blocs possibly hijacking joint efforts to maintain global warming below 2°C. However, in tying India and China down to climate targets, the Global North might have also attempted at ending their 'unfair' competitive edge given by the absence of mandatory cuts in emissions (Hurrell & Sengupta, 2012). Secondly, India and its fellow BASIC partners rejected these requests, evidencing the still impressive gap between them and the industrialised Parties. Per-capita emissions, cumulative emissions, poverty rates were among the tools used by emerging powers to underline their ongoing necessity to grow, and therefore to pollute. However, through the experience of the BASIC Coalition, India and the other members gradually came to terms with their new status (Hochstetler & Milkoreit, 2014). Acknowledging that, in a follow-up to the Kyoto Protocol, they would not be granted the same status as Parties emitting less than a tenth of their yearly CO2 became inevitable. The necessity to involve the new polluters in climate action forced a compromise, overcoming the divide in Annexes without completely assimilating emerging powers to the Global North.

Further, India's rising emissions challenged the notion of historical responsibility, with scholars beginning to weigh the peculiar culpability of post-1990 emissions (Meyler & Sanklecha, 2017). The economic development fuelled by these emissions also allowed

India to afford climate action, watering down New Delhi's claims on the fragility of its economy. Ultimately, the external pressure to increase climate commitments comprises these components: an increased capacity to sustain environmental action and India narrowing the gap in cumulative emissions with the Global North, distancing itself from less developed countries. Neither of these factors was sufficient to involve India *per se*, but they were both contributing conditions induced by the country's CO2 output. So was the mitigative action performed in Durban by the BASIC Coalition: one of the standout reasons in the coming together of these countries was precisely their comparable increases in cumulative emissions.

Moreover, this work appreciated India as subject to internal pressure, too. Authors have declared that PM Modi's collaborative approach in the Paris Agreement was rightfully criticised as inconsistent with the fundamental beliefs of Indian climate policy (Mohan, 2017). However, the claim that Indians traditionally prioritise economic growth, and the eradication poverty, to 'the call to arms of climate action' neglects recent developments. The escalation of natural disasters in the country undoubtedly contributed to shifting the population's views, as a recent survey reports that Indians want the government to 'put the climate first' (Padmanabhan, 2019). Moreover, the private sector's prowess towards the expansion of renewable energy indicates that a significant share of Indian entrepreneurs spotted the potential for profit in greening the country's development: the production of solar energy is especially promising. India's natural propensity to renewable energy might be considered by researchers an INUS condition in this case[34]. Further, the ever more frequent natural disasters inevitably caught the government's attention; the will to appear a reliable global stakeholder also involved assuming responsibility towards the lives of Indian citizens, which started to acknowledge the role their country has to play in preventing global warming. This work does not hold these factors to have single-handedly determined India's latest climate policy; yet, the combination of these conditions has contributed to its recent eagerness to act. If India no longer aimed at emerging as a responsible power, its climate commitments could sink sensibly[35].

This thesis has presented insights into the relation between India's rising emissions and their influence over the country's will to combat climate change, finding it endured a

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[34] INUS: “an *Insufficient* but *Necessary* part of a condition which is itself *Unnecessary* but *Sufficient* for the result” (Mackie, 1965). India’s abundance of renewable sources encourages entrepreneurs, possibly facilitating the implementation of green incentives from the government.

[35] The reference is to Brazil, a country highly vulnerable to global warming whose government has recently embraced climate denialism (Machado, 2019).

twofold pressure to do so. It did not identify a single, causal factor, drawing India out of its Non-Annex bubble and into a moderately bright position in global climate policy. Instead, it scrutinised a combination of causes linked to its rising CO2 levels, all contributing to this outcome (Mahoney, 2015). The BASIC countries, which stood in comparable predicaments, received a similar pressure during the negotiations. India, however, shows an almost case-specific vulnerability to climate change, classifying as the Coalition's most prone member to extreme weather events (IMF, 2017).

Nevertheless, this branch of research would benefit from more methodologies and other assessments, focusing on different sectors and actors. The limited space did not allow, for instance, to thoroughly consider the action of lobbying and pressure groups, nor to adequately discuss the role of foreign and Indian environmental organisations and activists. More importantly, though, researchers could address Brazil's position, another emerging power remarkably exposed to the adverse consequences of climate change. Once a fervent negotiator in UNFCCC, it has now withdrawn participation to the Paris Agreement. Brazil is unquestionably not as big of a polluter as India, but more contributing factors will have concurred in its backtracking on the treaty. A better understanding of the drivers of environmental commitment could sensibly improve global climate policy: other countries could follow a similar pattern in the coming years, although it will likely be on a smaller scale.

The levels of CO2 emissions discharged in the following years will shape the planet we will live in by 2050. Our ecosystems, economies, societies, relations of powers will feel the impact of the action, or lack thereof, of today's main polluters. The implementation of comprehensive and efficient policies is essential to ensure that India's projected development will not contribute to excessively disrupting our climate. Greening the country's growth remains a profoundly complicated challenge and meeting the below-1.5°C does not entirely depend on New Delhi's government. However, this work has found that India shows unprecedented willingness to bear its responsibilities in combating climate change. Its natural prowess to renewable energy feeds the cautious optimism that India could achieve poverty eradication through sustainable development.

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