

# Climate Change: Investigating the Hurdles to Action

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## Introduction

The issue of climate change commonly appears in international media headlines. Environmental problems such as industrial emission of chlorofluorocarbons (CFCs), and deforestation are also significant enough to have become incorporated into the international political agenda. It is noteworthy that other environmental issues with serious impacts, for example indoor air pollution, have not been incorporated into this list due to various factors. According to Mitchell [1], the prioritization of an issue on the international agenda depends on a set of processes and conditions. In Part I of this paper, with reference to a framework developed by Mitchell [1], I will explain how the issue of climate change has emerged on the international agenda. Moreover, I will demonstrate that, due to the prevalence of factors relating to the nature and scale of the issue, climate change has not progressed far enough on the agenda to become an issue of international emergency.

The historic causes of climate change, as well as the varying capabilities of different states to address it, have become subjects of debate between developed and developing countries. The principle of Common but Differentiated Responsibilities (CBDR) developed by the United Nations assigns the primary responsibility of funding efforts at tackling climate change to developed countries (DCs) [2]. This is partly because DCs are largely responsible for the current concentrations of greenhouse gases (GHGs) in the atmosphere, with 75 % of the GHG emissions between 1750 and 2005 derived from DCs [3]. This idea has often been criticized by DCs, while less developed countries (LDCs) have largely welcomed it. In Part II of this paper, I will explain the perspectives from both sides. Following this, I will examine the climate change debate from a moral perspective, using different philosophical principles to discuss which courses of action to combat climate change may be the most morally justifiable.

In addition to DCs and LDCs, there are other groups of countries with differing interests regarding the current climate scenario. These include countries which are part of the Alliance of Small Island States (AOSIS) and the Organization of the Petroleum Exporting Countries (OPEC). In Part III of this paper, I will analyze the stances of these countries. I will also discuss how the stances of various actors in the climate change debate have changed since the 1990s.

## Part I: The emergence of climate change on the international agenda

According to Mitchell [1], the incorporation of an issue into the international agenda has to pass through three stages: recognition of the existence of the problem, dissemination of knowledge on the problem, and emergence of the problem on the

international agenda. I will start by examining how climate change has successfully transcended the first two of these stages, before explaining the factors that have hindered its progression to the third stage: becoming an international item of action by garnering sufficient international support.

The warming of the Earth due to climate change, or global warming, was recognized as early as in the 19<sup>th</sup> century. Amongst the first to suggest the idea of climate change induced warming was Swedish scientist Svante Arrhenius in the 1890s [4]. The emergence of further scientific findings, notably the results of US scientist Charles Keeling, stimulated greater political interest in climate change [5]. Keeling's work provided important information regarding the link between increasing carbon dioxide concentrations in the atmosphere and human activities [4]. The increasing amount of evidence was important for the discussion of climate change in the 1992 Rio Earth Summit as well as the establishment of the 1997 Kyoto Protocol.

After the acknowledgement of the existence of climate change, information about it was disseminated more widely. This spread of information led to the establishment of the Kyoto Protocol in 1997, and public and political awareness of the issue has drastically increased since that time. New reports were published by the Intergovernmental Panel on Climate Change (IPCC), an international coalition of scientists, which further improved our knowledge of the causes, impacts and solutions regarding climate change [6]. The 21st century has also witnessed the emergence of so called "champions" [1, p. 91] of climate change. One of them is former US Vice President Al Gore, who, through a series of presentations conducted across the world, significantly increased the global awareness of the problem.

Although the signing of the landmark 2015 Paris Agreement reflects important progress in the UN Climate Regime, there are factors which still hinder the complete transition of climate change to the status of an "action item" [1, p. 82]. That is, the international community is still far from having adopted sufficient measures to prevent dangerous climate change. The latest IPCC Special Report [7] states that, at the current rate of GHG emissions, the ambitious target of limiting the global temperature rise to 1.5°C as agreed upon in the climate deal could be breached in as short as 11 years (i.e. by 2030). This raises the question of why, considering the risks of climate change, countries have not yet taken sufficient measures to address it.

The reason may lie with the nature of the problem. Mitchell [1] argues that an environmental problem that appears distant, for which a cause-effect relationship is not immediately clear, may take longer to be addressed. In the case of climate change, emission of greenhouse gases cannot be linked intuitively to rising global temperatures and a greater frequency of natural disasters. This leaves policymakers the option of accepting or refuting the scientific findings that underpin the need for addressing climate change. Even if people are willing to accept that global warming will result in more natural catastrophes, it is still difficult to assert that a particular event was 'caused' by climate change. A particularly strong typhoon, for example, is

not necessarily attributable to climate change, as typhoons have been a regular occurrence in human history, even before people started emitting greenhouse gases into the atmosphere. Therefore, for a significant population, it may be difficult to recognize the existence of a problem in the first place. An issue such as air pollution, in contrast, can produce immediate and noticeable effects such as hazy skylines. The existence of the problem is therefore much more evident. In the case of climate change, the frequency of climate driven catastrophes must increase significantly before most people would begin to notice their existence. By the time this happens, the Earth's climate system may have already crossed several thresholds, and it may be too late for remedial action.

Another factor which may impede action on climate change is the relative costs of addressing it [1]. This becomes especially clear when comparing the current climate scenario with the success of the Montreal Protocol in addressing ozone depletion, in which reasonably priced alternatives to CFCs were developed, effectively solving the problem. This refers to another necessary condition for addressing an environmental problem, which is the availability of cost-effective alternatives [1]. In the context of climate change, this requires finding a cheap alternative to the carbon intensive fossil fuels that have long formed the foundation of the global energy infrastructure. While options such as solar and nuclear energy are available, implementing them at a large scale will certainly not be cheap. It would require significant financial investment in changing the current energy infrastructure. In addition, it would require countries to abandon the large pool of fossil fuels that still lie beneath the Earth's surface. Countries that have long relied on crude oil exports for national income would have to diversify their economies. These may be among the causes of major setbacks to the climate change regime, such as the announcement of the US to withdraw from the Paris Climate Agreement. There is much progress to be made before climate change receives sufficient international action.

## **Part II: The debate between LDCs and DCs**

The emergence of climate change in the late 20<sup>th</sup> century as a global environmental problem raised a debate between two large groups of countries, the DCs and LDCs. The DCs include the US, UK, Canada and other economically and technologically advanced countries, while LDCs comprise countries such as China and India which have not yet achieved the same standards of living [8]. The subject of contentious debate between both sides involves the extent to which the Common but Differentiated Responsibilities Principle should be used to make DCs cut their GHG emissions as well as provide aid to LDCs for mitigation and adaptation. This part of the paper will begin by explaining the major arguments of both sides before examining the debate from a moral perspective.

### **The stance of LDCs**

LDCs argue that DCs should bear most of the costs associated with climate change. A key reason given is that DCs have a historical responsibility for the current concentrations of greenhouse gases in the atmosphere. Indeed, estimates show that DCs are responsible for approximately 75% of carbon dioxide emissions from 1750 to 2005 [3]. Another argument frequently brought up by LDCs is concerned with the capacity to act. Many LDC countries, such as those in Africa and Asia, have large numbers of people living in poverty. Their main priority is to improve the livelihoods of their people; therefore, they have limited capacities remaining to act on climate change.

Ciplit et al. [9] also point out that LDCs are concerned that the DCs may use global warming as a means to impose restrictions on them to slow down their economic growth. These concerns seem even more justified for rapidly expanding economies such as China, India, and Brazil, whose growth has the potential to change the global power balance. LDCs also emphasize their much lower per capita emissions compared with DCs. For comparison, each person living in the United States has a yearly emission of 16.15 tons of CO<sub>2</sub>, while India and most developing African states have per capita emissions of below 1.5 tons [10].

### **The stance of DCs**

The major concerns of the developed countries relate to the significant financial costs of mitigating and adapting to climate change, as well as helping LDCs do the same. The US, in particular, objects to being held at an economic disadvantage against countries like China by emissions targets and money transfers to developing countries. DCs insist that if they are required to cut down significantly on carbon emissions, it must be reciprocated by emissions reductions from the LDCs as well. Regarding the idea of historical responsibility, DCs claim that a large portion of their past greenhouse gas emissions occurred during a time when scientific consensus had not fully been reached about anthropogenic climate change. Therefore, DCs cannot be held historically responsible, because they were not aware of the environmental effects of their emissions until sufficient scientific evidence emerged in the 1990s [11]. Another part of this argument refers to the availability of alternative renewable energy sources. DCs explain that such technologies were not available when their industrial development began in the 1800s. It will therefore be unjustified for LDCs to use fossil fuels to continue their development when cleaner technologies are available [8].

DCs also refer to the argument that, even if they were to make significant emissions reductions, these would simply be offset by growing emissions from nations such as India and China unless limits were placed on them as well [10]. This point is particularly important, because stabilizing global warming at a safe level requires significant cuts in GHG emissions globally. It appears that a more practical approach may be to require large LDC emitters to reduce their greenhouse gas emissions, with the DCs still making the greatest cuts while providing mitigation and adaptation finance to LDCs.

### **The climate change debate: A moral approach**

When analyzing the perspectives of DCs and LDCs to determine which arguments have greater validity, it is important to include established principles of morality. An analysis of the climate change debate therefore requires an analysis of morality and justice. In a similar way shown in Page's 2008 paper, *Distributing the Burdens of Climate Change* [11], I will analyze the climate change debate on the basis of three moral principles: *equality, priority, and sufficiency*.

The principle of *equality* (or egalitarianism) is based on the idea that all humans are inherently equal, and that the *right* course of action is that which reduces the amount of inequality [11]. While it is evident that the Earth's current society is unequal, the effects of climate change will exacerbate these inequalities. In order to minimize inequality, therefore, DCs would have to invest heavily in LDCs. However, a stringent application of *equality*, as Page [11, p. 564] notes, introduces the "leveling down" problem. In the context of climate change, this means that DCs would be "levelled down" if they invest heavily in LDCs on the basis of equality. Because of this potential negative outcome for DCs levelling down problem, equality alone cannot serve as a comprehensive tool for assigning the responsibilities of climate financing.

Another principle of justice we may look into is *priority*. Prioritarianism holds the view that, if there are people who are worse off than others, it is our moral obligation to help them. It differs from egalitarianism in that it does not state that all individuals have to be made equal. Rather, the emphasis is on improving the plight of the worst off, even if the outcome does not necessarily result in everyone being equal. The advantage of prioritarianism is that it avoids the "leveling down" problem of egalitarianism. When applying prioritarianism to the issue of distributive justice in climate change, it would imply that DCs should shoulder most of the costs of climate change because they have a moral obligation to help the people in LDCs, who would be made even worse off because of its effects. This is probably more in line with our conventional way of thinking; therefore, prioritarianism may offer greater promise for making a convincing moral argument regarding climate financing.

Another principle which may be applied when analyzing the climate change debate is *sufficientarianism*. This states that once people are above a certain threshold of living, there is no longer any moral obligation to make them better off [13]. Resources should therefore be focused on increasing the number of people above this threshold of sufficiency. Again, a sufficientarian way of tackling climate change would likely involve prompting DCs to pay for the major costs of climate change, because this would allow LDCs to focus their resources on bringing their citizens above the threshold of sufficiency. The major problem of sufficientarianism arises when we attempt to define where the threshold of sufficiency lies. As Page [11] points out, setting a relatively high threshold of sufficiency may require less of developed countries, because it would allow the greatest number of people to remain over the sufficiency threshold.

We often appeal to various forms of these ideals in our daily lives. For example, we may appeal to egalitarianism when arguing that men and women should have equal

pay at work. We may look more to prioritarianism when convincing ourselves that seeing someone who is worse off does not necessarily mean that we have to make ourselves worse off. We may appeal to sufficientarianism when trying to ensure that all humans have certain basic rights, such as food, water, and education. By analyzing the moral ideals we use when making decisions, it becomes easier to see why certain courses of climate action may be more morally justified than others.

While the three ideals do not agree in all scenarios, it is evident that they all point in one general direction: Developed nations have a heavy responsibility to help developing countries mitigate and adapt to climate change. As Friedman [14] notes, allowing developing countries to grow their economies with less burden is pivotal in reducing poverty. However, it should be noted that mitigation of greenhouse gas emissions does not necessarily represent a burden solely for DCs. As observed in the 2015 Paris Climate Agreement, *all* countries, not just developed nations, put forward voluntary emissions reduction pledges. India and China, in particular, have put forward significant pledges, which are in some ways more ambitious than those from certain developed nations. This is because increasing the use of renewable energy and electric vehicles also helps solve the problem of domestic air pollution, which is a significant problem in both countries. In addition, Ciplet et al. [9] suggest that these ambitious emissions reduction targets may be part of a plan to increase their share of global governance by taking leading positions on a global issue. However, Friedman [14] notes that developed nations such as the US have excellent infrastructure in the form of leading universities and research institutions to stimulate innovation in renewable energy. The developed nations, therefore, also have an important role to play in promoting the advancement of renewable energy technologies and transferring these technologies to less developed countries.

### **Part III: Other coalitions and evolution of the debate**

Since the inception of the UNFCCC in 1992, the climate change debate has seen major actors change their stances and heard the emerging voice of smaller groups of countries. One such group is the Alliance of Small Island States (AOSIS). These low-lying island countries face an existential threat from rising sea levels, and therefore campaign for urgent action on climate change. Their stance differs from other developing countries in that they demand GHG emission reductions from all major emitters, not only DCs [9]. This is because minimizing sea level rises is a matter of survival for many of these nations. AOSIS countries have also advocated the idea of compensation from DCs for the serious damages and losses they are likely to face due to extreme weather events and rising sea levels [9]. The DCs, unsurprisingly, have argued strongly against the need for such measures [10]. Another group of developing nations with a different set of interests is the Organization of the Petroleum Exporting Countries (OPEC). OPEC has often argued against the reduction of fossil fuel use, because this will diminish its members' ability to sell crude oil, which has been a major source of income for these countries. In addition, OPEC asks for compensation for the lost income that its members will experience in a world that relies less on fossil fuels

[9]. A comprehensive view on the politics of climate change, therefore, will also have to take into account the perspectives of other nations in addition to those of LDCs and DCs.

The signing of the 2015 Paris Agreement also marks a shift in the stances of multiple countries in the climate change debate. One important aspect of the deal is that all Parties to the Agreement, not only the DCs, have to put forward their self-determined emission reduction targets. One of the reasons that LDCs may have agreed to this is because of the ability to choose their own emissions reduction targets, allowing them to align the targets with national development goals. In addition, DCs had agreed in the 2009 Copenhagen conference to eventually raise \$100 billion per year to finance mitigation and adaptation projects in developing nations. In the cases of India and China, Cipler et al. [9] suggest that their ambitious emission reduction targets may be parts of a plan to increase their share of global governance by taking leading positions on a global issue. In addition, due to their recent rapid growth, their capabilities to address climate change have significantly increased since the time the debate began in the 1990s [9]. Although the principal concerns of LDCs and DCs have remained the same, it can be seen that the debate between them has resulted in outcomes which are greatly different from what may have predicted in the 1990s.

## **Conclusion**

This essay has examined the progression of events that have led to climate change entering the international political agenda. Part I has shown that, due to various factors such as the psychological distance of the problem and the cost of addressing it, climate change has faced significant barriers to becoming recognized by the global community as an issue of emergency. Part II has examined how climate change has evolved into a debate between DCs and LDCs, and considered the moral aspects of responsibility for addressing the problem. Part III has discussed other actors whose specific interests do not match the broad visions of DCs or LDCs.

Although the current action addressing climate change is unlikely to be sufficient at limiting global temperature rises to 2°C, the Paris Agreement represents a step in the right direction towards more ambitious mitigation goals. While DCs and LDCs will continue to debate the best measures for moving forward, the Paris Agreement represents the beginning of a converging view on climate change. It reflects the idea that climate change is a global problem that requires a widespread, unified solution, and that all countries play a role. Only when views converge will countries be able to form subsequent agreements and set more ambitious targets to limit global warming to a safe level. The role of discussion therefore becomes even more important in order for countries to form a consensus, and minimize the impacts of climate change on the most vulnerable communities. Action needs to be taken in quick, ambitious strides, because time is limited, and the consequences of inaction are dire.

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