

# Exploring the Impact of International Cooperation on Climate Change

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## ABSTRACT

Driven by human-related pollution and environmental damage, climate change has become a life-threatening issue for the international community in recent decades. To address this global challenge, different organizations must collaborate with each other and thus create collective goals on an international scale. This paper aims to explore the ways in which international cooperation to address climate change can happen, in particular, two types of cooperation— among states and among non-state actors. By examining different examples of the two ways of cooperation, this paper concludes the effectiveness and limitations on each side and provides a vision for future international cooperation methods. This paper reviews some quite inspirational and thoughtful perspectives from other scholarly articles, specifically, eight different types of articles acquired from Google Scholar were examined. International cooperation that has specific requirements and outlines is essential to addressing climate change. Future models of such cooperation must improve upon the predecessors and thus avoid internal exhaustion.

**Keywords:** *Climate change, International cooperation, International relations, Environment, Corporate strategy*

## 1. INTRODUCTION

From the dawn of the Industrial Age, human-caused pollution within a few hundred years has surpassed the total amount of environmental damage since the planet's existence. Climate change which includes the rise of temperatures, unpredictable weather conditions and destruction of ecosystems is a direct result of human activities. Nearly every form of human-manufactured energy resource contributes to net climate change; that is, almost all industrial technology which constructs society eventually leads to Earth's illness. Coal energy consumption, involving fossil fuel burning, is a particular harmful event that causes global warming. All the produced gas from fossil fuel burning becomes greenhouse gasses which enter the atmosphere. The heat from sunlight is unable to reflect out into space due to a thick atmosphere. Accumulation of heat on Earth then results in a rise of temperature for the entire planet, affecting populations and all the living beings worldwide. Proven to be irreversible in a short period of time, the rising temperature causes multiple damaging effects such as global warming, frost-free season lengthening and

precipitation pattern variation [1]. Under the current circumstance of rising climate change issues, the international community must cooperate to limit human activities that generate pollution.

With the pressing issue of climate change, international actors are required to communicate with each other in order to secure a future for all to thrive. International actors are mainly composed of state actors (nations) and non-state actors (independent corporations). Although the importance of cooperation is widely recognized, a grave danger is posed against all actors due to their unequal possession of resources. Developing countries, for example, suffer from the same effects of climate change as developed countries despite the fact that most pollution is emitted by larger nations. To prevent the upward spiral of competition and exhaustion of resources which further elongates climate change, each actor must choose the most suitable approach of negotiation on the international stage. Whether it is considering the theory of realism to occupy much more handsome profit or practicing the pursuit of liberalism to emphasize self-actualization in society, the choice of international relation theories significantly influences the

ultimate outcome of climate change resolutions.

It is commonly acknowledged that a shortage of resources and competition of them would cause dispute and conflicts in the world and in a way would further increase the state of imbalance between (among) nations and regions. Interpersonal behavior and mutual effect bring us the image of an actual world, and it is the same with our natural world and international relationship. Thus, improper and even abandoned acts would inevitably lead to eventual chain reactions.

Thus what effective measures can be taken to apply the IR knowledge into climate change and positively explore the corresponding impact of international cooperation on global warming inarguably becomes an issue to think about.

So far, a large amount of academic research has discussed the relationship between human activity and climate change. Some of those studies point out it is climate change that has become one of the largest human issues which are focused on the commons governance that includes the theory of game and approaches to cooperation [2]. With the outcome of a great many global and regional agreements to deal with climate change, there are scholars who take specific treaties as a concrete object of study to analyze the availability of those policies [3]. During the implementation and fulfillment of global warming cause, how can the practical process be visualized and thus shape models for people to obtain more profit and avoid unnecessary losses in the future exactly requires more precise analysis. Pacheco et al. in 2014 show us this analysis in a way of professional mathematical calculation [4]. Furthermore, when the present situation aroused by climate change makes companies have to meet the challenge to both planet Earth and current economic interests one after another, developing and taking new strategies to gradually solve and balance the problem is what people should ponder deeply over [5]. At the same time, Selin & VanDeveer in 2005 note in their case study that the Canadian-US relations of environment significantly provide a new model for people to take as a reference when it comes to cooperation between (among) states to manage regional issues on environment and form solid and flexible networks for climate change [6]. Besides, Funder et al. in 2013 do also analyze the different roles of aid in the agenda of climate change for Zambia and demonstrate different factors which give people specific angles to find the wisdom of a developing country on one global issue [7]. Next, it is worth mentioning that with all of these research, analysis, etc. above furnishing us with the possible solutions of cooperation on climate change among states and non-state actors, periodic and indispensable survey and assessment do also play an essential role that directly reflects the realistic outcome of people's endeavor. Tingley & Tomz in 2014 conduct concrete surveys in 26 countries and investigate the

support of people which reveals their attitude of cooperation on climate change under specific conditions [8]. Finally, from physical measures to a deeper cognitive analysis, Hirose et al. in 2020 carry out intensive study on perception gap that relates to climate change [9]. In summary, all of these research and studies surely offer us various and useful reference to the impact of international cooperation on climate change, which represents different perspectives or a particular practice of one global issue. Yet besides the literature review of the academic research above, in this article, the author will continue to discuss the relationship between IR and climate change and further explore the critical impact of international cooperation on this change among states and non-state actors which is based on current affairs and recent paradigm. Here, hopefully this article would better contrast, compare and synthesize previous outstanding studies and hence objectively demonstrate several dynamic research and thoughts on this global issue which may provide readers, researchers, etc. with any new possible understanding of the human-nature relationship.

This article mainly explores the impact of international cooperation on climate change according to relevant IR theories. In the first part, the author briefly introduces this research from its background, significance, and related questions. Besides, the literature review on this study has also been demonstrated in a clear and logical way. Next, this article discusses the relationship between climate change and IR and systematically raises the question of why human beings are in need of cooperation among states and non-state actors respectively.

The author takes "Climate change", "International relations", "Environment", "Corporate strategy", etc. as keywords and finally has more than 20 related academic papers on Google Scholar included in this article through elaborate and repeated siftings.

## **2. COOPERATION TO COPE WITH DIFFICULTIES**

Just like humanistic aid and mutual assistance after the windstorm on the west coast, human beings as a community can also work together to exactly deal with these issues that are related to climate change worldwide. In terms of the current situation and international relations, there has been two major cooperation in coping with difficulties that are directly caused by climate change among 1) states, 2) non-state actors. And before the concrete analysis, here the article will first present various angles of international cooperation on climate change, which is on the following Table 1.

**Table 1.** Different angles of international cooperation on climate change

Angle Types of International Cooperation on Climate Change	No. of Papers	References
Scholar View	6	[2], [10], [11], [12], [13], [21]
Policy Research	3	[3], [14], [22]
Model Analysis	1	[4]
Economic Strategy	2	[5], [15]
Outcome Assessment	2	[16], [17]
Case Study	4	[6], [7], [18], [19]
Survey Report	2	[8], [20]
Cognitive Perceptual Study	1	[9]

### 2.1. Cooperation Among States

At the present stage, states are the most powerful economic-political force to carry out various policies and explore practices to achieve long term stability. Therefore, when international crises occur, states undoubtedly play the primary role of cooperating with one another to combat tough challenges; in this case, climate change.

On 12 December 2015, a legally binding international treaty on climate change was adopted by 196 Parties at COP 21 (the 21st meeting of the Conference of the Parties) in Paris. Accordingly entering into force on 4 November 2016, it is one of the most well-known outcomes of international cooperation to fight against the current environmental crisis. With a profound and lasting goal, this treaty aims to limit global warming to well below 2 (ideally to 1.5) degree Celsius, which is the level state before industrialization. With its goal to limit global warming, the Paris Agreement is the first landmark treaty that is set up to confront the process of multilateral climate change. It is an ambitious agreement that binds nations together to undertake significant efforts to fight against climate change [23].

In order to achieve this long-time goal of maintaining temperature, all countries work out their respective programs to limit greenhouse emissions globally at the first opportunity and turn the vision of a climate neutral world into reality. The Paris Agreement requires all nations to treat the improvement of global warming as a common cause and hence practically be responsible for combating climate change and acclimatizing the effect of it [23].

High expectations and provisions were put upon the Paris Agreement from the start. It did prove to be successful at limiting social and health issues caused by climate change in a short term. Deaths due to pollution worldwide were lowered, natural habitats of animals were partially restored, and the number of state participants continued to grow. However, the lack of legal binding treaties and specificity on states' financial contribution made the treaty more of "voluntary participation" than a requirement [22].

The United States' withdrawal from the Paris Climate Accords is a specific example of loss derived from the cooperation among states that directly reduces the efforts to limit climate change. The agreement is at a declining stage in current times due to the absence of a great contributor and leader.

Donald Trump, former president of the United States, announced the country's withdrawal from the Paris Agreement in 2017. With the absence of the United States, the then newly formed international alliance faced a serious issue of losing its leader and important contributor. Trump claimed the accords to impose unfair requirements that benefited other countries while they dragged the United States. According to his logic, this agreement that supposedly bound countries for a collective cause became meaningless and ineffective as it imposed unequal requirements for different nations. The decision to leave the Paris Agreement was therefore illustrated as a defensive action that rescued the country from an international scheme aimed to weaken the economic power of the United States. Trump claimed that the nation was open to re-enter the accords or to initiate a new climate agreement as long as the agreement was fair. This call further showed an emphasis on the financial aspects of the Paris Agreement rather than the effectiveness of its purpose to limit climate change.

The United States' withdrawal warns the global community of a danger that could occur during the cooperation among states to address climate change. Working towards a goal for common good, state cannot slip into the paradox of comparing its input with other nations. Even worse in Trump's case, he categorizes the Paris Climate Accords as an economic scheme aimed to limit the United States. States are the most powerful actors that can bring the biggest impact to the global community, but they must not center themselves as priority while cooperating with each other and combating an international crisis. Moreover, the degree of regulation and international supervision on states' cooperation is still to be discussed and improved; the imbalance caused by unclear legal treaties and economic input is a major threat for future international cooperation to address climate change.

## 2.2. Cooperation Among Non-state Actors

Compared to political force of a nation, non-state actors obviously play a more flexible and gradually important role in the cooperation of global issues. From non-governmental organizations to various aid agencies, they care deeply about the present dilemmas of individuals, and they long faithfully for the bright futures of the whole society. Even if in the face of climate change, it seems that these non-state actors do never lose their nerve.

During the process of cooperation among nations to deal with the issue of global warming, while treaties and all types of agreements could be signed to embody the active involvement and productive negotiation of most countries, there are still plenty of practical and even challenging problems to be faced squarely [3].

Efforts that come from the globe to find ways out of climate change to some extent were such kind of striving to include all nations worldwide and formulate universal treaties which would be binding under the control of laws. Thus many policy makers would regard the treaties more of a must to obey with strict targets and fixed timetables than an actual and promising project to participate in positively [21]. From this perspective, it appears that these global agreements in a way lack proper flexibility and if necessary and effective interference mechanism or other newly-developing and burgeoning form of cooperation could not come into being at a proper time and under suitable conditions, little effect and unavoidable failure sometimes may be the final result which contradicts the original intention and purpose of the cooperation itself.

In accordance with current research of social science, there might be suspicious of the effectiveness of agreements on global environmental issues, which as a response provides three warnings to the diplomacy architects of global warming. The first one points out that with most nations and regions acceding to a universal treaty, different tendencies aroused by respective national considerations of interests and benefits make it critically hard to realize the foreseeable future of climate change. Second, considering the practical limitations and inflexibility of carrying out and applying a global agreement, what can and should be done to conquer the trend of surrendering to the least common multiple and awkward situations is unquestionably a prerequisite concern for people to reflect back on profoundly. Third, looking back on quite a few treaties of global environmental issues, there is often a complexion between over-integrated and too scattered [21].

Therefore, as supplement and implementation of international treaties on an environmental issue, for instance, the Paris Agreement, non-state actors are a veritable trend towards it. While there have been multiple institutional obstacles which bar the funds and make it

more difficult to reach feasible and effective decisions, innumerable levers are alleviating these barriers and unceasingly make contributions to the implementation of the Paris Agreement [24].

For instance, the “4C Maroc” initiative in Morocco is a representative trans-sector coordination to combat with climate change. And it created an innovative mode of governance which includes state actors, the private sectors, research bodies and civil society organizations to get together and devote themselves to the common cause of global warming. From this paradigm, it to some extent provides us with a more inclusive and effective program to make non-state actors a part into climate issues handling and policies making [24].

## 3. CONCLUSION

By far, environmental issues have gradually caused so much distress to human beings. On the one hand people enjoy more convenience, physical fun and mental pleasure from scientific development, but on the other hand they have to pay for it since ecological balance has been severely harmed by them. In such an era, how can they take effective measures to cope with climate change and fully play the roles of states and non-state actors to seek better solutions of current global crisis would inevitably be another cooperation for people to chew over.

This article has discussed the global issue of climate change and objectively explored the impact of international cooperation on it through corresponding IR theories. During the practical study and research, for one thing, the author carefully reviewed a large amount of unique and excellent previous literature on global warming and its cooperation across the world, for another, the author aims and strives to probe into the latest and creative form of cooperation which takes dynamic and critical perspectives between state and non-state actors.

For now, this research presents a novel and essential impact study of international cooperation on climate change in accordance with important IR theories. Here the author does really hope that this study and example analysis could be inspirational and furnish more enthusiastic readers and professional researchers to care about current environmental issues and constantly forge ahead with insightful research on climate change.

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