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Assessing the Effectiveness of International Climate Agreements in Mitigating Global Warming

Ocena skuteczności międzynarodowych porozumień klimatycznych w ograniczaniu globalnego ocieplenia

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Abstract: This paper provides an in-depth evaluation of the effectiveness of international climate agreements in addressing the issue of global warming. As concern about climate change increase, global collaboration has become crucial in designing and implementing strategies to reduce emissions of greenhouse gases. The study reviews major international agreements, including the Kyoto Protocol, the Paris Agreement, and the subsequent Kyoto Climate Agreement, exploring their internal mechanisms, goals, and results. Drawing on empirical data, it assesses how well these agreements have performed in real life as regards limiting the global warming. The paper also discusses the challenges and obstacles in the process of implementing the agreements, such as compliance difficulties, political hurdles, and the involvement of various stakeholders. By synthesizing current research and policy insights, the paper aims to enhance public understanding of the effectiveness of these agreements and provides recommendations for improving their impact in tackling the urgent threat of climate change.

Keywords: international climate agreements, global warming, climate change, implementation challenges, international cooperation, effectiveness assessment

Streszczenie: Niniejszy artykuł przedstawia dogłębną ocenę skuteczności międzynarodowych porozumień klimatycznych w rozwiązywaniu problemu globalnego ocieplenia. Wraz ze wzrostem obaw dotyczących zmian klimatycznych, kluczowa staje się globalna współpraca w tworzeniu i wdrażaniu strategii mających na celu redukcję emisji gazów cieplarnianych. Artykuł przybliży najważniejsze porozumienia międzynarodowe, w tym Protokół z Kioto, Porozumienie paryskie i późniejsze Porozumienie klimatyczne z Kioto, przedstawiając ich wewnętrzne mechanizmy, cele i skutki. W oparciu o dane empiryczne, niniejszy artykuł, ocenia skuteczność powyższych porozumień w ograniczaniu globalnego ocieplenia. Omawia on również wyzwania i przeszkody stojące na drodze wdrażania uzgodnionych postanowień, takie jak dostosowanie się do wymagań, przeszkody natury politycznej i zaangażowanie różnych interesariuszy. Biorąc pod uwagę obecny stan badań oraz sytuację polityczną, artykuł przedstawia faktyczną skuteczność tych porozumień. Dodatkowo, zawiera on zalecenia mające na celu zwiększenie tej skuteczności w walce z zagrożeniami niesionymi przez zmiany klimatyczne.

Słowa kluczowe: międzynarodowe porozumienia klimatyczne, globalne ocieplenie, zmiana klimatu, wyzwania w zakresie wdrażania, współpraca międzynarodowa, ocena skuteczności

Introduction

Climate change is one of the most serious global environmental problems of the 21st century, and its impacts on humanity are becoming more and more visible/perceptible. Extreme weather events, melting glaciers and rising sea levels are just some of the impacts that affect not only ecosystems but also the socio-economic stability of many countries (IPCC 2021). In this context, international climate agreements have become a key instrument for coordinating global efforts to mitigate the effects of global warming. These agreements aim to reduce greenhouse gas (GHG) emissions and establish frameworks for sustainable development, and their success depends largely on global cooperation among states, international organizations and other stakeholders (Gómez-Echeverri 2018).

The first major climate agreement was the 1997 Kyoto Protocol, which set binding emission reduction targets for developed countries (UNFCCC 1997). Despite its significance, the Kyoto Protocol has faced various challenges, including non-participation by the United States and little to no involvement of developing countries (Victor 2011). Another significant one was the Paris Agreement, adopted in 2015, which was a breakthrough for its global approach and wider involvement of developing countries (UNFCCC 2015a). The Paris Agreement aims to limit global warming to below 2°C, with the ambition to keep temperature increases to even 1.5°C, relying on the so-called Nationally Determined Contributions (NDCs), which are determined by individual countries according to their own capabilities and capacities (see, e.g., also Rogelj et al. 2016).

However, empirical data and research suggest that implementation of these agreements is accompanied by many problems and challenges. In particular, political obstacles such as national interests, changing government priorities and inflexible economic systems often hinder the effective implementation of climate commitments

(Falkner 2016). At the same time, there is still a significant imbalance in the commitment of developed and developing countries to climate goals. In particular, developing countries often face economic and technological constraints that make it difficult for them to transition to a low-carbon economy, while developed countries have greater adaptive capacity (Pauw et al. 2016), but most importantly, they are the primary emitters.

Another major challenge is the problem of ensuring compliance with and monitoring of commitments under the international agreements in question. The Paris Agreement, unlike the Kyoto Protocol, does not contain binding sanctioning mechanisms for non-compliance, which raises doubts about its effectiveness (Aldy 2021). While voluntary commitments allow for greater flexibility, they also rely on internal political and social pressures in individual countries, which can lead to underperformance of global targets (Anderson et al. 2020).

Other stakeholders such as NGOs, the private sector, as well as civil society itself, also play an important role in addressing climate change. These actors can support emission reductions through innovation, promotion of policy initiatives, and education (see also, Bulkeley et al. 2014). Collaboration between governments and these actors has been shown to be crucial in the implementation of sustainable solutions within regional and local contexts (Newell et al. 2021).

The aim of this article is to analyse the effectiveness of the two most important international climate agreements mentioned above, with an emphasis on examining their impacts on reducing global warming. Based on current data and analysis, this article evaluates the mechanisms, objectives and outcomes of these agreements, identifies the main challenges in their implementation and suggests options to improve their effectiveness. The outcome of this article should also be to contribute to the broader debate on the need to strengthen global

efforts to address one of the greatest challenges of our time – climate change.

1. Historical Context

The phenomenon of global climate change is rooted in human activities that are leading to a significant increase in the concentration of greenhouse gases (GHGs) in the atmosphere. The most important gases contributing to global warming are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) (IPCC 2021). These gases are mainly produced by fossil fuel combustion, industrial production, agriculture, and deforestation, with increasing GHG levels leading to warming of the atmosphere and oceans, resulting in changes in climate patterns (Gómez-Echeverri 2018).

The international community recognizes that climate change is a global threat that requires coordinated global cooperation among all actors. Therefore, countries within the United Nations have committed to cooperative strategies to both mitigate climate change and reduce its impacts. Major international agreements such as the Kyoto Protocol (1997) and the Paris Agreement (2015) adopted under the United Nations Framework Convention on Climate Change (UNFCCC) set specific emission reduction targets for individual countries, thus providing a framework for global climate policy-making. The Kyoto Protocol was the first such international attempt to limit greenhouse gas emissions, committing primarily developed countries to reduce emissions (Victor 2011). Although some countries, such as the US, did not sign the agreement, the protocol served as an important precedent for international negotiations.

The later adopted Paris Agreement, which entered into force in 2016, offered a broader and more flexible framework. Unlike the Kyoto Protocol, it includes developing countries in a significant way and allows each country to set its own emission reduction targets, known as Nationally Determined Contributions (NDCs) (UNFCCC 2015a, 2015b). This agreement aims to limit

global warming to less than 2°C above pre-industrial levels, with the ambition being not to exceed 1.5°C (Rogelj et al. 2016), but this has not been achieved and we have already exceeded the aforementioned 2°C.

Evaluating the effectiveness of international climate agreements therefore involves not only analysing the mechanisms by which emissions targets are set, but also examining the ways in which they are implemented and maintained (Aldy 2021).

2. United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change – UNFCCC – was adopted in 1992 at the Earth Summit in Rio de Janeiro. The Convention is an international treaty whose primary objective is to coordinate global efforts to combat climate change. The Convention represents one of the first and most important steps towards addressing the environmental challenges of rising greenhouse gas emissions, global warming and climate change.

The UNFCCC was thus designed to create a global framework for international cooperation on climate change, emphasising the principle of common but differentiated responsibilities. This means that all countries of the world have an obligation to contribute to solving the problems, but this should be with due regard to their individual economic capabilities and historical contribution to atmospheric pollution. A key objective of the Convention is to stabilize GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the Earth's climate system (UNFCCC 1992).

The Convention also established a mechanism for regular meetings of the Parties, referred to as the COP, where international climate policy is made and other legally binding documents (such as the Kyoto Protocol and the Paris Agreement) are adopted. These documents develop the main objectives of the Convention and define more specifically the measures needed to reduce

emissions and mitigate climate change as well as its impacts.

Establishing the legal bases

The primary contribution of the adopted Convention is that it has laid the foundations for future legally binding climate agreements. The 1997 Kyoto Protocol, adopted under the auspices of the UNFCCC, was the first treaty to impose binding emission reduction targets for developed countries. This mechanism was later expanded in the Paris Agreement, where almost all countries of the world have now been involved in emission reductions (UNFCCC 1997; 2015b).

The Convention included the following key targets:

- *Stabilization of GHG concentrations* – the objective is thus to stabilize GHG concentrations at a level that would prevent dangerous climate change. Based on this objective, all climate change policy efforts are aimed at reducing emissions and limiting further increases in global atmospheric temperature. However, based on data from the Intergovernmental Panel on Climate Change (IPCC), global greenhouse gas emissions have increased by more than 40% from 1990 to 2020, demonstrating the inadequacy of this solution and pointing to the need or necessity for even more ambitious action (IPCC 2021).
- *The principle of common but differentiated responsibilities* – common but differentiated responsibilities is one of the guiding principles of the UNFCCC. More specifically, this means that while all countries must contribute to addressing climate change, not all countries have the same historical responsibility for causing it. Rich countries, which have contributed to the increase in emissions through industrialization, have a greater responsibility than developing countries, which need more time and resources

to adapt to new technological and ecological requirements.

- *Adaptation to climate change* – the Convention recognises that not all impacts of climate change can be avoided and therefore it is important to invest in adaptation to irreversible impacts. This aspect also later became a key part of the Paris Agreement, which requires all countries to work towards increasing resilience to climate change (UNFCCC 2015a).
- *The significance and limitations of the UNFCCC in the global context.*

It can be stated that the Convention has various successful aspects, but it also faces numerous challenges and limitations. Among the achievements of the Convention, we rank the following:

- *Institutionalization of international climate negotiations:* the UNFCCC has created a platform where countries meet regularly to discuss global climate action. These negotiations result in key agreements that move the world closer to solving the climate crisis (UNFCCC 2015b).
- *Increased awareness and action:* the Convention has also played an important role in raising global awareness of climate change and the need to take immediate action. As a result, many countries have adopted national climate policies, invested in renewable energy and implemented energy efficiency programmes.
- The UNFCCC's constraints and challenges include:
- *Insufficient commitments:* the Kyoto Protocol, as the first legally binding agreement under the UNFCCC, applied only to developed countries, leaving out, for example, emerging economies such as China and India, which are also among the world's largest polluters today (Zhang 2010).
- *Lack of legal mechanisms* in the Paris Agreement: although the Paris Agreement covers almost all countries in

the world, its nationally determined contributions are not legally binding, which means that states are not legally responsible if they fail to meet their commitments. This lack of a legal mechanism raises concerns that current efforts will not be sufficient to prevent dangerous warming (UNEP 2020).

It can be concluded that the UNFCCC represented a major step towards establishing a global climate policy and coordinating international efforts to reduce greenhouse gas emissions. Despite significant achievements, such as establishing the legal basis for international climate treaties and raising global awareness of climate change, the UNFCCC faces challenges, particularly in the areas of implementing effective legal mechanisms and including developing countries. For the future, there is a need to increase ambition and accelerate the global transformation to low-carbon economies in order to meet the targets set by the Convention and avoid the catastrophic consequences of climate economic and technological limitations change.

3. Kyoto Protocol

This document was adopted in 1997 and represented the first international agreement aimed at reducing greenhouse gas emissions and was a major milestone in climate policy. It aimed to commit mainly industrialised countries to reducing greenhouse gas emissions, setting a target of 5.2% reduction below 1990 levels for the period 2008-2012. The Kyoto Protocol set binding emission targets for countries with advanced economies. In addition, the Protocol introduced a number of flexible mechanisms to achieve these targets, including emissions trading, Clean Development Mechanism (CDM) projects and Joint Implementation (JI), which were intended to enable countries to meet their commitments in a cost-effective manner (UNFCCC 1997).

3.1. Emission reduction performance against targets

According to UNFCCC data, total GHG emissions in the countries listed above had decreased by approximately 22.6% by 2012 from 1990 levels, exceeding the original Kyoto Protocol target (UNFCCC 2015b). On the face of it, this result suggests success. However, a significant proportion of this decline is attributable to the collapse of industry in Eastern Europe and the former Soviet Union countries, rather than to direct climate action taken by advanced economies (Grubb 2009).

At the same time, while emissions from developed countries have declined, countries that were not included in the Protocol's commitments, such as China and India, mentioned above, which are now among the largest emitters, have seen emissions rise sharply. So, while some countries have met their commitments (Canada and Japan, for example), large emitters such as the US and China have not been sufficiently controlled. The US eventually withdrew from the agreement, which limited its impact. China even nearly doubled its emissions between 2000 and 2012, neutralizing the gains made by the countries involved (IPCC 2014). This phenomenon underscores one of the major shortcomings of the Kyoto Protocol – that it essentially left out developing countries, some of which have become strong contributors to global emissions.

3.2. Successes and limitations of the Kyoto Protocol mechanisms

Certainly, among the most significant mechanisms of the Kyoto Protocol was emissions trading. Flexible mechanisms such as emissions trading have proved effective in reducing the cost of emissions for some countries, but critics point to some problems with their application. For example, the Clean Development Mechanism (CDM), which allows countries to invest in emission reduction projects in developing countries, has been criticised for not always leading to real and lasting emission reductions. A 2016 study found that many projects funded through

the CDM did not lead to emission reductions at the levels that were claimed (Cames et al. 2016).

One of the biggest weaknesses of the Kyoto Protocol was that it was not legally binding and did not have effective mechanisms built in to enforce penalties for countries that did not meet their emission targets. An example is Canada, which withdrew from the Protocol in 2011 when it was clear that it would not meet its targets, thus avoiding any legal consequences (UNFCCC 2012).

Although emissions in participating countries have declined, global emissions have continued to rise during the Kyoto Protocol's lifetime. According to a report by the Intergovernmental Panel on Climate Change, global greenhouse gas emissions increased by more than 50% from 1990 to 2012 (IPCC 2014). This trend suggests that emission reductions in a limited number of countries alone have not had a sufficient impact on mitigating global warming. An analysis of temperature trends over the Kyoto Protocol period shows that the global average temperature increased by about 0.5°C from 1997 to 2012 (NASA 2024). This clearly shows that the measures taken under the Kyoto Protocol were not ambitious enough to reverse global warming.

However, one of the biggest problems with the Kyoto Protocol was the aforementioned fact that it was not global in scope, but only targeted developed countries, while developing countries were not required to meet binding targets. This has led to a shift of industrial production from countries with strict emission targets to countries without commitments, which has increased global emissions overall, not least because these countries often use less developed technologies.

At the same time, the US, as a major emitter, has withdrawn from the agreement and not all developed countries have fulfilled their commitments. Global emissions thus increased during the Kyoto Protocol period as emissions from the United States

and developing countries increased, which reduced the effectiveness of the Protocol.

We can thus conclude that the Kyoto Protocol was the first major international attempt to tackle climate change through binding targets for reducing greenhouse gas emissions. However, while some countries have successfully reduced their emissions, the overall impact on global warming has been minimal. Insufficient or no engagement of developing countries, problems with flexible mechanisms, and the absence of effective sanction mechanisms were key factors that limited the success of the Protocol. The Kyoto Protocol provided valuable lessons that contributed to the creation of the Paris Agreement, which seeks a broader and more equitable approach to reducing emissions at the global level.

4. Paris Agreement

This document was adopted in 2015 at the 21st Conference of the Parties (COP21) to the UN Framework Convention on Climate Change and represents a significant step in international climate policy. Indeed, the primary objective of this agreement is to keep the global temperature increase well below 2°C above pre-industrial levels, while aiming to limit the temperature increase to 1.5°C, which is a very ambitious target. However, the targets are based on scientific studies and evidence that suggest that crossing this threshold could have truly dangerous consequences for the Earth's climate system, ecosystems and human societies (IPCC 2018). Under the Paris Agreement, each country also set and submitted its Nationally Determined Contributions (NDCs), which represent each country's planned actions to reduce emissions. Unlike the Kyoto Protocol, which set binding targets only for developed countries, the Paris Agreement engages the entire world and requires all countries to do their part to address climate change, while taking into account their national capabilities and circumstances (UNFCCC 2015a).

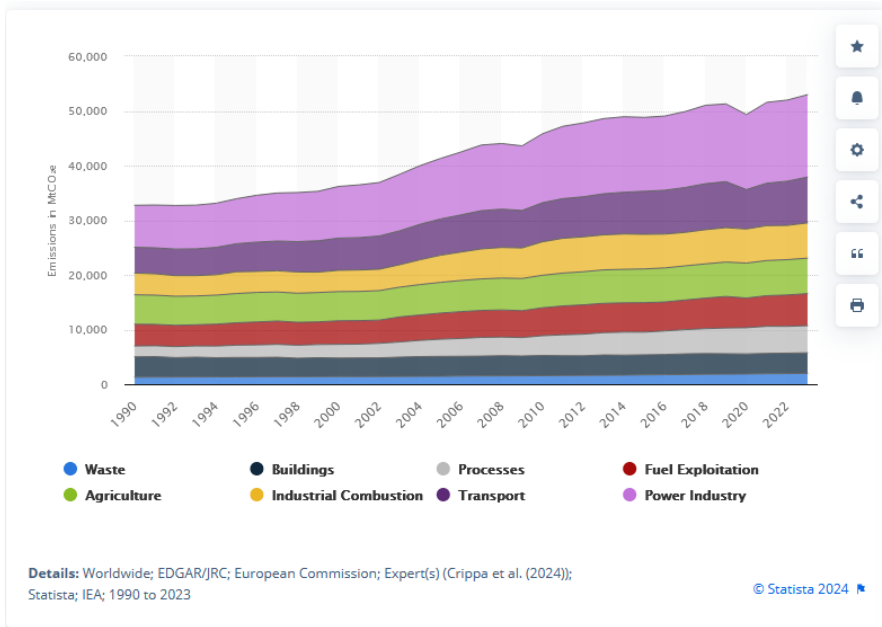


Figure 1. Annual greenhouse gas emissions worldwide from 1990 to 2023 by sector (in million metric tons of carbon dioxide equivalent). Sources: Statista, 2024

The agreement also stresses the importance of financing for development and adaptation to climate change, seeking to mobilize significant funding (US\$100 billion per year by 2020) to support countries that are most vulnerable to climate change and most affected by its impacts (UNFCCC 2015a).

Success, shortcomings, and challenges of the Paris Agreement

The Paris Agreement requires countries to regularly update their NDCs and increase ambition in line with the latest scientific findings. Emissions analyses show that not all countries have achieved their stated targets. For example, emissions report documents show that global GHG emissions have continued to grow, with an increase of about 1.5% per year between 2015 and 2019 (UNEP 2020).

The IPCC assessments also highlight that if current trends continue, global temperatures could rise by 2.7°C by the end of the century, well above the Paris Agreement target

(IPCC 2021). This increase is threatened due to the lack of country commitments under the NDCs and the necessary implementation of emission limitation measures needed to achieve the targets.

Also, although the Paris Agreement has created a framework for mobilizing finance for developing countries, actual funding is not always in line with expectations. A report by the Organisation for Economic Co-operation and Development (OECD) shows that countries have not been able to reach the target of \$100 billion per year by 2020, creating gaps in support for the most vulnerable countries (OECD 2024).

One of the main shortcomings of the Paris Agreement is that NDCs are voluntary and there are no legally binding mechanisms to enforce the targets. This approach can lead to insufficient efforts and ineffective achievement of climate goals (Bodansky 2016).

Analyses suggest that an acceleration of emission reduction measures will be necessary to achieve the Paris Agreement

targets, as for example the UNEP emissions report also warns that current measures are not sufficient to achieve the agreement’s goals, and that faster and more radical emission reductions will be needed (UNEP 2020).

CO₂ emissions continued to rise even after the adoption of the Paris Agreement. The Paris Agreement introduced a fairer approach that includes all countries in the world – not just the developed ones. However, there are still issues of equity and differential opportunities. Developed countries, which have historically made the largest contributions to emissions, face different challenges in meeting their commitments, but at the same time developing countries often lack the necessary capacity and resources to meet their targets without adequate financial and technological support (Liu et al. 2020). The latter should be provided precisely because they are not only smaller emitters, but they are also often victims of rich countries and the consequences of climate change, which are more pronounced in these countries.

We can therefore conclude that the Paris Agreement certainly represents a significant step towards an integrated and global approach to climate change. However, even though countries have committed

themselves to emission reductions and regular updates of their NDCs, real results have not yet shown a significant reduction in global warming trends. Lack of commitment and implementation, along with inadequate financing and the need to accelerate action, are key challenges that need to be addressed in order to achieve the goals of the Paris Agreement. To succeed, it will be essential to strengthen global cooperation and ensure that all countries are able to contribute to tackling the climate crisis in a fair and effective way.

5. Kyoto Protocol - Second Commitment Period

This agreement was adopted at COP18 in Douha in 2012. Its aim was to continue the commitments of the previous period of Kyoto protocol adopted in 1997 and to extend commitments to new countries. Some countries have submitted new pledges to reduce emissions, and also some new countries have joined the treaty. Some new rules and mechanisms to implement and enforce the commitments were introduced, including a mechanism to deal with problems with the calculation of emissions. This document represented a significant step in international efforts to mitigate climate

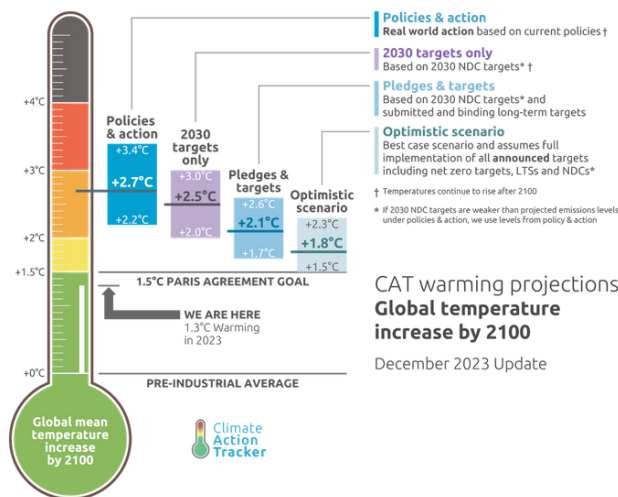


Figure 2. Predicted temperature increase by 2100 based on current NDCs. Source: Climate Action Tracker, 2023

change, but its effectiveness and success are the subject of intense debate. As mentioned above, the Kyoto Protocol set binding targets for developed countries to reduce greenhouse gas emissions by 5.2% below 1990 levels for the period 2008-2012. The Kyoto Climate Agreement, which entered into force on 1 January 2013 and remained in force until 31 December 2020, extended this commitment and set new targets for emission reductions (UNFCCC 2012).

The second commitment period aimed to reduce greenhouse gas emissions by 18% below 1990 levels by 2020 (UNFCCC 2012). This target was to be achieved through flexible mechanisms similar to those introduced in the first period of the Protocol.

Success, shortcomings and challenges of the KP2

According to data from the UNFCCC, total emissions in participating countries in the second commitment period were reduced by about 10% compared to 1990 levels, below the target (UNFCCC 2020). This decrease was significantly influenced by economic factors such as lower levels of industrial production during the economic crisis and some country measures.

One of the main shortcomings of the second commitment period was that developing countries and countries without commitments, such as China and India, were still not obliged to comply with the emission targets, even though they experienced significant emission increases, which, as mentioned above, reduced the overall impact of the emission reductions under KP2 at the global level (IPCC 2014).

Flexible mechanisms such as emissions trading and the Clean Development Mechanism (CDM) were intended to facilitate the achievement of emissions targets. However, criticism of these mechanisms has highlighted problems such as over-use of these mechanisms and the questionable environmental benefits of many CDM-financed projects (Cames et al. 2016).

Similarly, the KP2 did not have sufficient legally binding mechanisms for countries

that were unsuccessful in their efforts to achieve their targets. Countries that did not reduce their emissions were not effectively sanctioned, undermining the overall effectiveness of the Protocol (UNFCCC 2012).

At the same time, while countries with obligations to reduce emissions showed some decline, global GHG emissions continued to rise anyway, suggesting that efforts to reduce emissions at the level of developed countries are indeed insufficient to slow the global trend (IPCC 2014) and that any further such efforts must be truly global.

Although KP2 was intended to represent a step forward in international climate policy, it has shown only very limited success in achieving the goals of reducing emissions and mitigating global warming, despite the fact that it was possible to learn from the mistakes set out in the original Kyoto Protocol. Emission targets have not been met, again mainly due to the lack of coverage of developing countries and the lack of effective sanctions. Flexible mechanisms, although designed to promote cost-effective solutions, still faced efficiency problems. But these experiences have at least provided some lessons, and some of this has managed to translate into the Paris Agreement, which seeks a broader and more inclusive approach to tackling climate change. To make real progress, it will be essential to focus on more ambitious targets, more effective mechanisms and global cooperation.

Conclusion

The Kyoto Protocol and the Paris Agreement are important steps in international climate policy, but their effectiveness in mitigating global warming and climate change in general has been affected by a variety of factors, ultimately leading to their failure. Nevertheless, they were important first steps in efforts to address the climate crisis. While the Kyoto Protocol contributed to the development of new mechanisms, the Paris Agreement expanded global participation and flexibility. To achieve climate goals, it

will be necessary to strengthen ambition, improve monitoring and ensure adequate support for developing countries (more in Madubuegwu et al. 2021).

International climate agreements, including the Kyoto Protocol, the Paris Agreement, represent different approaches to addressing climate change. The Kyoto Protocol was a first step in commitments to reduce emissions, while the Paris Agreement provides a broader and more flexible approach (more in Tavoni et al. 2015).

The effectiveness of all and future agreements will depend on implementation and increased ambition by countries. Therefore, based on the above findings on the failures of the Kyoto Protocol and the Paris Agreement, a number of recommendations for improvement can be proposed for future action. For example, important is the *strengthening enforcement and compliance mechanisms*. This means that stronger measures to monitor and implement these agreements would be needed to prevent underperformance. This can include for example transparent peer review process (Mor et al. 2023). There is also a need to focus on *equity and climate justice*. Climate agreements must be effective and just. The individuality of each country as well as the vulnerability of many developing countries must be taken into account in such agreements. The responsibility must be common but reasonably differentiated (see more in Madubuegwu et al. 2021). The inequalities among developed and developing countries must be minimised and this can significantly improve the effectiveness of such agreements. Also, there is a need to promote *much more ambitious commitments* that were set very weakly within the two analysed agreements and therefore they the results were not enough for mitigate climate crisis. *Developing countries must be equally interested in these agreements*. The cooperation and participation must be truly global as the climate crisis is also truly global. But we must take into account that developing countries tend

to be smaller emitters than developed countries, but the impacts of climate change are much more extreme in these countries. It is therefore necessary to take this into account in the commitments and also to provide these countries with suitable technical and financial assistance (more in Mor et al. 2023). There is also a need to *support greater engagement of all interested parties*. Because we have seen that this is what was missing in the Kyoto Protocol and the Paris Agreement, and this was also one reason for their failure (Mor et al. 2023). Moreover, within each participating nation all spheres must be engaged in these activities across political, social and economic sphere and whole civil society to support new sustainable strategies and achieve climate goals effectively.

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