# IN 2020, THE WORLD PAUSED. CLIMATE CHANGE DID NOT



## Introduction

In the global governance of climate change, 2020 was intended to be a year of intensive work to shorten the distance between the current and desired trajectories in climate change mitigation. Concern about climate change was at a high point in many constituencies: school strikes for climate action were widespread, Oxford Dictionaries chose "climate emergency" as the word of the year, and in the World Economic Forum's Global Risks Report 2020, issues related to global warming occupied all five top positions in the most likely risks for the coming decade. Announcements of new climate mitigation targets and actions by states, regional organisations and companies were starting to emerge: Chile declared its intention to go carbon neutral in June 2019, the new European Commission announced the European Green Deal and its goal of climate neutrality by 2050, and Microsoft launched plans to be carbon negative by 2030.

However, this year has not gone according to plan. COP26, the major UN climate summit scheduled for November 2020 in Glasgow, has been post-



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CIDOB REPORT # 06- 2020 poned. Governments, individuals and indeed the entire world have had to shift their attention to a problem requiring urgent, immediate and full dedication: the COVID-19 pandemic engulfing the globe. In the short term, the battle against the COVID-19 pandemic has made an unintentional contribution to the fight against climate change. To prevent the virus's spread, large swathes of the world's economy were effectively shut down, which led local air pollution levels and energy-related greenhouse gas emissions to drop. However, this effect is likely to be only temporary – when the economy revs up again, so will emissions. More relevant, perhaps, are the lessons that the responses to the COVID-19 crisis might yield for climate action, particularly those related to individual behaviour and collective action.

There are a number of important similarities between the climate crisis and the COVID-19 crisis. First and foremost, they are clear examples of

IN THE SHORT TERM, THE BATTLE AGAINST THE COVID-19 PANDEMIC HAS MADE AN UNINTENTIONAL CONTRIBUTION TO THE FIGHT AGAINST CLIMATE CHANGE. HOWEVER, THIS EFFECT IS LIKELY TO BE ONLY TEMPORARY. collective action problems. Both problems affect all of humankind – though some individuals and states may be more resilient and better equipped to deal with their impacts. In addition, both carbon dioxide emissions and COVID-19 display non-linear growth rates. The solutions to the two problems are extremely expensive, and they require interventions that deeply affect our economies and our societies. Furthermore, the solutions cannot come about without international cooperation, as neither problem respects borders.<sup>1</sup> Finally, science plays a critical role: un-

certainty is the enemy of effective action and robust scientific research is key to accurately diagnosing the situation and implementing the correct solutions.

Nevertheless, there is also a fundamental difference between the challenges: their horizon. The measures currently being put in place to fight the novel coronavirus would have been unfathomable just months ago. Yet the immediacy and visibility of the virus's impact on human and societal health jump-started governments, companies and entire societies into drastic action. The effects of climate change, in contrast, are already being felt, but they

<sup>1.</sup> In the case of COVID-19, national or regional borders may be temporarily closed and may for a time stem the increase in transmission; however, effectively maintaining border closures for an extended period of time seems unimaginable in our globalised world.

are not felt equally around the world, and they are often subtler – for now. Scientists have been publishing warnings on the impending emergency for decades. Endless graphs have confirmed rising temperature trends and extreme weather events are already becoming more intense and frequent; yet the most invasive, direct and extreme impacts of our warming world still lie ahead.

Some action has been taken, but it is far from enough. If not addressed, the pernicious lag between scientific warnings and the action to tackle the problem will have major and irreversible consequences for the planet and its inhabitants. The issue is that humans, generally speaking, are not psychologically equipped to make the drastic changes necessary – except in acute crises, when we feel immediate and direct impacts. The same holds true for the political systems humans have built. The crux of the question for climate change, then, is how to achieve effective and rapid collective action on a critical problem with a longterm horizon.

This chapter will examine the action that has – and has not – been taken, placing the spotlight on the United Nations' past and future role. In order to do so, it answers the three deceptively simple questions (*Where are we*? **A PRACTICABLE GLOBAL FRAMEWORK EXISTS TO ADDRESS** THE CLIMATE CHANGE **CHALLENGE: THE PARIS AGREEMENT, WHICH** WAS DESIGNED UNDER THE UMBRELLA OF THE UN FRAMEWORK **CONVENTION ON CLIMATE CHANGE, YET** THE WORLD IS NOT **HEADING IN THE RIGHT DIRECTION. THE ONLY** WAY TO RIGHT THE **COURSE IS THROUGH URGENT GLOBAL**, NATIONAL AND INDIVIDUAL ACTION.

Where do we want to go? How do we get there?) that guided the so-called Talanoa Dialogue in 2018,<sup>2</sup> and that structure the present volume on the United Nations' 75th anniversary. The reality is that a practicable global framework exists to address the climate change challenge: the Paris Agreement, which was designed under the umbrella of the UN Framework Convention on Climate Change. Yet the world is not heading in the right direction. The only way to right the course is through urgent global, national and individual action.

<sup>2...</sup> A facilitative dialogue held under UNFCCC auspices to take stock of collective efforts towards the Paris Agreement's long-term temperature goal; the dialogue involved governments, civil society, NGOs, businesses and cities.

#### Where are we? In what direction is the world heading?

At the time of writing, the carbon dioxide concentration in the Earth's atmosphere stood at 413 parts per million (ppm). Before the Industrial Revolution, the concentration was approximately 280 ppm. Cumulative carbon dioxide levels have been increasing year-on-year for decades, coming ever closer to the 450 ppm limit scientists have indicated as the level beyond which the effects of human interference with the climate system will become much more dangerous and unpredictable. This number roughly translates to about 2°C of warming above pre-industrial levels by 2100.

Today, however, our planet is already on average approximately 1°C warmer than it was before the Industrial Revolution (IPCC, 2018). If global greenhouse gas emissions were to continue to rise unchecked – that is, if no climate action at all were taken – the world would see temperatures rise by 4.1°C to 4.8°C on average by 2100 (Climate Action Tracker, 2019). If countries

### IF NO CLIMATE ACTION AT ALL WERE TAKEN – THE WORLD WOULD SEE TEMPERATURES RISE BY 4.1°C TO 4.8°C ON AVERAGE BY 2100.

continue to implement the policies they currently have in place, global temperatures are expected to be around 3°C higher than pre-industrial levels by 2100 (UNEP, 2019). These numbers are far from compatible with the 1.5°C and 2°C limits states have committed to in order to stem global warming.

For over 30 years now, countries have been cooperating to try to address the climate change challenge, primarily in the framework of the United Nations, through two principle components: the Intergovernmental Panel on Climate Change (IPCC) and the UN Framework Convention on Climate Change (UNFCCC). The IPCC is the essential scientific organ: through its regular assessment reports on the state of climate science and special reports on specific issues, the panel compiles a broad and broadly accepted base of policy-relevant scientific knowledge that countries can work from when designing international and national measures and policies.

The UNFCCC, on the other hand, is where the global governance of climate change mitigation and adaptation takes place. Created in 1992, the convention sets the macro-objective of stabilising "greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system". It also defines principles that should guide states in their action towards that goal. One such principle is that of Common But Differentiated Responsibilities and Respective Capabilities, which affirms that while mitigating climate change is the responsibility of

all, states with a larger historical role in the creation of the problem and those that have more resources to address it should bear more responsibility for its solution.

Two main instruments with radically different approaches currently exist under the convention's umbrella: the Kyoto Protocol and the Paris Agreement. The 1997 Kyoto Protocol took a regulatory approach, defining static emissions reductions targets for the so-called Annex I countries (essentially, the most developed countries) in a top-down model. Achieving ratification was difficult, however, and though the protocol did eventually come into force in 2005, it covered a relatively small segment of global emissions.

The Paris Agreement (PA), which was signed in 2015 and entered into force at record speed in 2016, could not be more different from the Kyoto Protocol. Rather than covering action by the developed countries only, it overcame the divides of the past to involve all the countries in the world, 189 of which had ratified the agreement at the time of writing. The PA offers a hybrid model with a set of collective goals: to limit global temperature increases to 1.5°C or 2°C above pre-industrial levels; to improve the ability to adapt to the adverse impacts of climate change; and to make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. These objectives are set collectively for the entire world, with no individual targets for states imposed from the top down. Instead, states make voluntary pledges (the so-called Nationally Determined Contributions (NDCs)) on what they can and are willing to do in climate change mitigation and adaptation from the bottom up.

The question, however, is whether the sum of individual state pledges will suffice to meet the global goal. The Paris Agreement foresees regular stock-take moments to make these calculations, providing a clear view of the state of ambition. States are expected to submit new NDCs every five years, representing a progression past previous NDCs and reflecting their highest possible ambition. This construct is designed to create a dynamic "ratcheting up" mechanism to reach the global objective. Yet there is no enforcement mechanism to ensure states deliver on their pledges. Instead, the Paris Agreement works through an enhanced transparency framework, where other states, civil society and indeed domestic constituencies can hold their leaders accountable when ambition or action is lacking. A final novel point in the Paris Agreement is the increased involvement of non-state actors: that is, sub-state actors such as cities or regions, private actors such as companies, and civil society actors including NGOs (see Garcia-Chueca in this volume).

Is the Paris model delivering? At this point, no. Analyses have shown that if all policies from the first round of national pledges are implemented, we are still headed for a world which will be approximately 3°C warmer this century (UNEP, 2019). Does this mean, then, that the Paris model is broken? The answer to this question is also negative. The agreement was designed precisely as a dynamic process to increase ambition – and this is why 2020, which is both the fifth anniversary of the agreement and the 75<sup>th</sup> anniversary of the UN, is so important. This is the year that states are requested to communicate or submit new and/or updated pledges to the UNFCCC. The UN Secretary-General, among others, has made it a top priority to encourage countries to increase their ambition substantially.

**IS THE PARIS MODEL DELIVERING? AT THIS** POINT, NO. THE WORLD WE WANT TO CREATE WAS **DEFINED IN 1992**, WHEN THE UNFCCC WAS ESTABLISHED: **A WORLD WITHOUT** DANGEROUS ANTHROPOGENIC INTERFERENCE WITH THE CLIMATE SYSTEM. TODAY, HOWEVER, **THIS HAZARDOUS** HUMAN INTERFERENCE IS ALREADY WELL UNDERWAY.

# Where do we want to go? What kind of world do we want to create?

The world we want to create was defined in 1992, when the UNFCCC was established: a world without dangerous anthropogenic interference with the climate system. Today, however, this hazardous human interference is already well underway: we have experienced 1°C of warming over pre-industrial levels and are seeing climate change impacts on the ground. At this point, therefore, we must accept that climate change is already happening, and work to create a world in which warming does not progress to even more dangerous levels, through emissions mitigation. For the climate change impacts that can no longer be avoided, however, adaptation will be critical.

In the Paris Agreement, all of the world's states agreed to limit global warming to 2°C above pre-industrial levels, and to pursue efforts to keep warming below 1.5°C. Even half a degree makes a difference: as shown in the IPCC's *Special Report on Global Warming of 1.5*°C, many of the physical impacts of climate change do not follow a linear track. That is, the impacts of 2°C of warming are far worse than those of 1.5°C in terms of sea level rises, extreme heat, water scarcity, crop yields and more. To provide an example, a modelling study found that under a 1.5°C scenario, approximately 14% of the global population would experience regular severe heatwaves (like the European heatwave of 2003, which led to tens of thousands of heat-exposure-related deaths). At 2°C of warming, that rate shoots up to almost 37% percent (referenced in IPCC, 2018). Reducing the greenhouse gas emissions that lead to global warming and climate change and aiming for the 1.5°C target is therefore imperative. Various organisations have generated mitigation scenarios compatible with the 1.5°C goal. The good news is that limiting warming to 1.5 degrees is still achievable. The bad news, however, is that it will require rapid action at unprecedented scale – in the shape of a 7.6% reduction in emissions every year for the coming ten years (UNEP, 2019). Global emissions are now projected to drop by 8% in 2020 (IEA, 2020), but this has only been possible through an inconceivably abrupt shutdown of a large portion of the world's economy and transport.

Moreover, once the world's economic motors restart after the COVID-19

crisis, it is likely that the trend of emissions and consequent global warming will resume. China provides a demonstration: in January 2020, the country was the first in taking the unprecedented step of radically halting a large part of its economic activity to stop the spread of the novel coronavirus. While the measures were in place, China's national emissions were a guarter lower than over the same period in 2019 (a reduction in carbon dioxide emissions of 200 million tonnes). The decrease in economic activity led to declining energy consumption and, in turn, lower greenhouse gas emissions. However, this change was not permanent. Data showed from early March for example, that nitrogen dioxide levels and coal consumption had returned to their normal levels (Myllvirta, 2020).

THE GOOD NEWS IS THAT LIMITING WARMING TO 1.5 DEGREES IS STILL ACHIEVABLE. THE BAD NEWS, HOWEVER, IS THAT IT WILL REQUIRE RAPID ACTION AT UNPRECEDENTED SCALE - IN THE SHAPE OF A 7.6% REDUCTION IN EMISSIONS EVERY YEAR FOR THE COMING TEN YEARS.

Since greenhouse gas emissions are an inseparable part of our global economy and lifestyles, reaching the 1.5 degree goal requires nothing less than a wholesale transformation of current economies and energy models. Today, there are competitive alternatives to fossil fuels for many (though not all) applications. Renewable energy prices, for example, are dropping and solar and wind are vying with other fuels to provide new power generation capacity. Yet up to now, this has not led to a true energy transition: 80% of the world's energy consumption is still provided through fossil fuel combustion. Renewable energy sources have not *displaced* the other fuels: they have simply *added* a layer on top of the world's cumulative energy consumption, contributing to an ever-growing skyscraper. While the relative shares of certain fossil fuels (such as biomass and coal) have decreased over certain periods, their contributions to global primary energy supply

have *increased* in absolute terms, along with the world's growing energy demand (Newell & Raimi, 2018).

A *true* energy transition (rather than a mere pattern of addition) is thus necessary to create the scenario we want, and it will require action on all fronts: policies, technology and behaviours. Renewable or other zero-carbon energy sources will need to be further incorporated into the mix, and energy efficiency must be ramped up. In regions that still rely very heavily on biomass (charcoal and fuelwood), including a large majority of the population in Sub-Saharan Africa, it will be imperative to choose low- or zero-carbon options to meet growing energy needs. However, in order to attain the 1.5°C target, further technologies will likely need to be implemented, including carbon emissions removal. The IPCC's special report on the 1.5°C target concludes that unless energy demand declines drastically (which would require major behavioural changes), there will be a need for carbon dioxide capture and geological storage or use.<sup>3</sup>

### THE LONGER ADAPTATION EFFORTS ARE POSTPONED, THE MORE EXPENSIVE THEY WILL BE.

While mitigation receives a lot of attention, adaptation to the already inevitable effects of climate change must advance in parallel. This, too, is urgent: the longer adaptation efforts are postponed, the more expensive they will be. Adaptation will be necessary everywhere, but particularly in the world's least developed and

small island developing states, which often do not have the means to adapt (and have only contributed tangentially to the problem of climate change in the first place). These states will require financial assistance, which developed countries have committed to through the UNFCCC. However, more of it will need to flow to adaptation: at present, only about one-fifth of climate finance is used for adaptation purposes, with the rest flowing to mitigation projects (OECD, 2019).

# How do we get there? How can we shorten the distance between these two worlds?

The only way to tackle this all-encompassing problem, shortening the gap between the current and the desired trajectories, is an all-in approach. This involves three levels of action, each of which is essential and feeds into the others: the global, national and individual.

<sup>3.</sup> Most of the scenarios in the report rely heavily on bioenergy with carbon capture and storage (BECCS).

At the global level, the Paris Agreement is now nearly five years old. Despite the fact that action under the agreement is not yet compatible with the targets it enshrines, it remains the strongest and most representative (and therefore legitimate) instrument currently available to address climate change, having been signed by all 197 UNFCCC parties after many years of negotiations. Given prior experiences (the failure to reach a global treaty at the Copenhagen climate summit in 2009, for example) and the state of multilateralism in general, it is currently unlikely that a different model (for example, with more top-down ambition or stronger enforcement mechanisms) would be acceptable to a large number of states. Unless a major crisis occurs, the Paris Agreement is therefore the most viable instrument for moving climate action forward in the coming years.

Moreover, the catalytic nature of the agreement is designed to enable stronger climate action (Hale, 2018). At this point, work is necessary on

two main fronts. On the one hand, it is critical that the ongoing UNFCCC negotiations on the technical implementation of the Paris Agreement – such as on Article 6 (international carbon markets) and common timeframes for future NDCs – move forward and lead to strong outcomes that will facilitate ambitious climate action. On the other hand, the new or updated NDCs that states submit this year need to represent a strong progression past the previous set, seeking alignment with the

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1.5°C target and carbon neutrality by 2050, as called for by the UN Secretary-General. At the time of writing, 104 countries had stated their intention to enhance ambition or action in an NDC by 2020, but these countries only represent 15% of global emissions (Climate Watch, 2020). The COVID-19 crisis has shifted the world's focus away from this issue, but it is vital that large emitters commit to enhance their ambition: without their contributions, the window towards maximum warming of 1.5°C or even 2°C will close rapidly.

The Paris Agreement should not, however, be the only instrument deployed. An all-in approach also involves action by other international organisations – for example, those working on energy-related or economic issues – and by smaller groups of states looking to advance a particular issue. The latter model, which some have termed minilateralism (Naím, 2009) or the club model, presents well-known downsides, such as a lack of representativeness and sometimes accountability. However, the urgency and complexity of the climate change challenge calls for action on all possible fronts. A number of issues in particular will need stronger or more effective global governance going forward. One is geoengineering, which encapsulates a host of different techniques, from nature-based and technological carbon dioxide removal to solar radiation management. At the very least, there is need for transparency and reporting on these technologies and their use at the international level. Another concerns the areas of aviation and shipping, whose emissions are both growing – in fact, if global aviation were a country, it would feature in the list of the world's top ten emitters (European Commission, n.d.). Both the International Civil Aviation Organization and International Maritime Organization have shifted into a higher gear on emissions-related matters in recent years, but ensuring ambition is high and loopholes are closed will be critical in the near future.

With global governance of climate change-related issues taking place in many different fora, it should be the role of the UNFCCC not only: (1) to maintain and strengthen the Paris Agreement, its processes and mechanisms, while continually seeking opportunities for further cooperation; but also (2) to play a catalytic role in accelerating climate governance and actions on many levels; and (3) to monitor and report on the action taking place in other institutions focusing on aspects of global climate governance. The IPCC, meanwhile, remains indispensable for its continuous assembly of a solid science-based battery of evidence to analyse the climate change problem and its potential solutions. Finally, to complement the communication of climate science, global governance organisations should also strive to disseminate and multiply success stories, showcasing climate actions with net positive effects and co-benefits.

Moving to the next level of action, it is clear that global governance cannot be effective without states. Simply put, and as described above, the Paris Agreement objectives – and the world we want to create – cannot be reached without action at the national level. The most immediate contribution countries can make is to submit highly ambitious NDCs to the UNFCCC process in the course of 2020, despite the recent COVID-19-related postponement of the 2020 COP26 summit. States and organisations aspiring to climate leadership, such as the EU, should submit their NDCs as soon as possible despite the summit change, providing an example to the rest of the world. The NDCs submitted by major emitters (China, the EU, and India, among others) will be followed closely, as will the US presidential elections in November: Democratic presidential nominee Joe Biden has announced that he will rejoin the Paris Agreement immediately if elected. In light of their historical responsibility, developed countries must show and deliver on their mitigation ambition while meeting their climate finance commitments.

Another high-impact short-term action is to ensure that the post-COVID economic recovery and stimulus plans target clean energies and technologies. The decisions taken now will be critical in the fight against climate change – but in the current context, public support for ambitious climate action may wane as economic and employment concerns surge. Policymakers will therefore need to design stimulus programs carefully and pragmatically, linking "green" initiatives directly with jobs and growth. Forward-looking national governments, furthermore, could also make the most of the low oil prices to remove fossil fuel subsidies while avoiding large economic impacts for their populations. Looking to the medium and long term, the coming energy transition will create geopolitical and economic opportunities, which governments should study carefully (some states, such as China, have already moved ahead of the curve in this regard). Finally, public opinion on climate change issues will be critical overall.

As demonstrated by the *gilets jaunes* demonstrations in France, governments will need to ensure that climate policies do not unequally affect certain groups in society. The just transition paradigm is a model here: for those groups most affected by the energy transition (workers in sectors such as coal mining, for example), policymakers will need to provide retraining, compensation or alternatives.

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Shifting to the individual level, 2019 in par-

ticular showed that public opinion can be a driver for the creation of climate policy. Both individual actions that grew into larger movements (such as Greta Thunberg and the Fridays for Future strikes) and work by more established NGOs (such as Greenpeace, E3G and Carbon Tracker) can download framings of urgency from the global level or horizontally and upload their preferences to the national level. Moreover, the Paris Agreement offers many opportunities for individuals and NGOs to monitor national and international ambition and action and make an impact, through its enhanced transparency mechanism. Finally, along with policy and technology, individual behaviour and choices will make an important contribution to climate change mitigation. In the case of COVID-19, an acute crisis led individuals to understand the importance of their actions. In the case of climate change, except for those already suffering the effects of global warming on a daily basis (as is the case of the inhabitants of some small low-lying island states), it may be more difficult to instil the importance of behavioural changes. Narratives and education can play a major role in helping to overcome the issue of time horizons that climate change poses.

### Conclusion

As is logical and necessary, the COVID-19 crisis is currently dominating our lives, economies and politics. However, another, slower-simmering crisis with longer-lasting and potentially irreversible consequences for the planet and our species is still ongoing: climate change. Despite the similarities in the problem structures of the two issues, governments and individuals will be slower to react to the latter challenge, for one clear reason: climate change represents a "tragedy of the horizons" (Mark Carney, 2015). Yet addressing the longer-term climate crisis is of life- and generation-defining importance. Indeed, the switch last year by many organisations to the terms "climate crisis" or "climate emergency" represents an attempt to break past the issue of the horizons to achieve the action that is so dearly needed.

While our focus must now necessarily be on fighting the pandemic, cli-

ANOTHER HIGH-IMPACT SHORT-TERM ACTION IS TO ENSURE THAT THE POST-COVID ECONOMIC RECOVERY AND STIMULUS PLANS TARGET CLEAN ENERGIES AND TECHNOLOGIES. mate action and urgency must not disappear. In the short term, the stimulus measures that are put into place to address the economic situation after the COVID-19 crisis must be green. When it comes to global governance, the UN at 75 has taken on climate change as one of its major challenges. As a whole, 2020 may have careened off track and COP26 may have been postponed, but the momentum for action in 2020 must not be lost. The Paris Agreement and its ratcheting up mechanism are currently

the world's best shot at collective action to address climate change, and this year more than ever, strong leadership – by the UN as well as ambitious UNFCCC parties such as the EU – will be critical to keep climate action (and indeed the planet) on track.

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