

Journal: *Scottish Geographical Journal* RSGJ (in press)

Article ID: RSGJ 1853873

The road from Rio to Glasgow: a short history of the climate change negotiations

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The last 30 years have been a period of intense and continuous international negotiation to deal with climate change. During the same 30 years, humanity has doubled the amount of anthropogenic carbon dioxide in the atmosphere.

In 1989 Margaret Thatcher, the Prime Minister of the UK, gave an address to the UN outlining the science of climate change, the threat it posed to all nations, and the actions needed to avert the crisis. She summed up by saying: “We should work through this great organisation and its agencies to secure world-wide agreements on ways to cope with the effects of climate change, the thinning of the ozone layer, and the loss of precious species.” (Margaret Thatcher Foundation, 2020) This sentiment was echoed in similar speeches by George Bush Senior, President of the United States, including one in 1992 when he outlined his ‘Clear Skies’ and ‘Global Climate Change’ initiatives at the National Oceanic and Atmospheric Administration.

This was because by the end of the 1980s the threat of climate change had finally been recognized. This was due to the global temperature record ‘hockey stick’ upturn at the end of the 1980s (Maslin, 2021). This led to the rediscovery of the underpinning science of climate

change that had been essentially carried out and settled by the mid-1960s (Weart, 2008). This was combined with our increased knowledge of how past climate was controlled by changes in atmospheric CO₂ and significant improvements in supercomputer modelling of our climate system (Maslin, 2021). There was also the emergence of global environmental awareness in the late 1980s driven by a series of catastrophic local pollution events and the discovery of the ozone hole over Antarctica (Corfee-Morlot et al., 2007). By the beginning of the 1990s climate change had become a global issue - even if it was still a highly disputed one (Oreskes and Conway, 2012).

The Intergovernmental Panel on Climate Change (IPCC) was set up in 1988 and produced its very first science report in 1990. Two years later, with support from leaders from all around the world, the UN held the Rio Earth Summit - officially called the United Nations Conference on Environment and Development (UNCED) - to help member states cooperate on sustainability and protecting the world's environment. The Summit was a huge success and led to the *Rio Declaration on Environment and Development*, the local sustainability initiative called *Agenda 21* and *Forest Principles* (Gupta, 2014). It also set up the *United Nations Convention to Combat Desertification*, the *Convention on Biological Diversity* and the *Framework Convention on Climate Change (UNFCCC)* that underlies the negotiations to limit global greenhouse gas emissions. The Rio Earth Summit also laid the foundations for the Millennium Development Goals and the subsequent Sustainable Development Goals.

The United Nations Framework Convention on Climate Change (UNFCCC) officially came into force on 21 March 1994. As of March 2020, UNFCCC has 196 parties. Enshrined within the UNFCCC are a number of principles including agreement by consensus of all parties and

differential responsibilities (Gupta, 2014). The latter is because the UNFCCC acknowledges that different countries have emitted different amounts of greenhouse gases (GHGs) and therefore need to make greater or lesser efforts to reduce their emissions. For example, per capita emissions of CO₂ in the USA are ten times greater than in India. The UNFCCC pays heed to the principle of contraction and convergence - the idea that every country must reduce its emissions and that all countries must converge on net zero emissions. The net zero emissions target emerged from the important IPCC 1.5°C global warming report published in 2018 which clearly showed that to achieve 1.5°C there had to be zero carbon emissions by about 2050 and then negative carbon emissions for the rest of the century (IPCC, 2018).

Kyoto 1997

Since the UNFCCC was set up, the nations of the world, 'the parties', have been meeting annually at the 'Conference of the Parties' (COP) to move negotiations forward. Only five years after the UNFCCC was created, at COP3 in December 1997, the first international agreement was drawn up, the Kyoto Protocol (Gupta, 2014). This stated the general principles for a worldwide treaty on cutting GHG emissions and, more specifically, that all developed nations would aim to cut their emissions by 5.2% relative to their 1990 levels by 2008–12. The Kyoto Protocol was ratified and signed in Bonn on 23 July 2001, making it a legal treaty. The USA, under the leadership of President Bush, withdrew from the climate negotiations in March 2001 and so did not sign the Kyoto Protocol at the Bonn meeting. With the USA producing about one-quarter of the world's carbon dioxide pollution at this time, this was a big blow for the treaty. Moreover, the targets set by the Kyoto Protocol were reduced during

the Bonn meeting to make sure that Japan, Canada, and Australia would join. Australia finally made the Kyoto Protocol legally binding in December 2007.

In order to balance out the historic legacy of emissions by developed countries, the treaty did not include developing countries, but it was assumed that developing countries would join the post-2012 agreement. The Kyoto Protocol came into force in February 2005, after Russia ratified the treaty, thereby meeting the requirement that at least 55 countries representing more than 55 per cent of the global emissions were participating (Gupta, 2014).

Copenhagen 2009

There were huge expectations of COP15 (Copenhagen) in 2009 despite coming a year after the global financial crash. New quantitative commitments were expected to ensure a post-2012 agreement in order to move seamlessly on from the Kyoto Protocol. Barack Obama had just become President of the USA, raising hopes of a more positive approach. The EU had prepared an unconditional 20% reduction of emissions by 2020 on a 1990 baseline and a conditional target rising to 30% if other developed countries adopted binding targets. Most other developed countries had something to offer. Norway was willing to reduce emissions by 40% and Japan by 25% from a 1990 baseline. Even the USA offered a 17% reduction on a 2005 baseline, which was an equivalent drop of 4% on a 1990 baseline. But the Copenhagen conference went horribly wrong. First the Danish government had completely underestimated the interest in the conference and provided a venue that was too small. So in the second week, when all the high-powered country ministers and their support arrived, there was not enough room, meaning that many NGOs were denied access to the negotiations. Second, it was clear that the negotiators were not ready for the arrival of the

ministers and that there was no agreement. This led to the leaking of 'The Danish Text', subtitled 'The Copenhagen Agreement', and the proposed measures to keep average global temperature rise to 2°C above pre-industrial levels (Gupta, 2014). It started an argument between developed and developing nations as it was brand new text that had just appeared in the middle of the conference. Developing countries accused the developed countries of working behind closed doors and making an agreement that suited them without seeking consent from the developing nations (Byrne and Maslin, 2015). Lumumba Stanislaus Di-Aping, chairman of the G77, said, 'it's an incredibly imbalanced text intended to subvert, absolutely and completely, two years of negotiations. It does not recognize the proposals and the voice of developing countries' Guardian (2009).

The final blow to getting an agreement on binding targets came from the USA. Barack Obama, arriving only two days before the end of the conference, convened a meeting of the USA with the BASIC (Brazil, South Africa, India, and China) countries which excluded other UN nations, and created the Copenhagen Accord (Maslin, 2021). This recognized the scientific case for keeping temperature rises below 2°C, but did not contain a baseline for this target, nor commitments for reduced emissions that would be necessary to achieve it. Earlier proposals that would have aimed to limit temperature rises to 1.5°C and cut CO₂ emissions by 80 per cent by 2050 were dropped. The agreement made was non-binding and countries had until January 2010 to provide their own voluntary targets. It was also made clear that any country that signed up to the Copenhagen Accord was also stepping out of the Kyoto Protocol. Hence the USA was able to move away from the binding targets of Kyoto Protocol, which should have been enforced until 2012, and a weak voluntary commitment approach was adopted. The Bolivian delegation summed up the way the Copenhagen Accord was reached—'anti-

democratic, anti-transparent and unacceptable' Guardian (2009). It was also not clear what legal status the Copenhagen Accord had as it was only 'noted' by the parties, not agreed, as only 122, subsequently rising to 139 countries, agreed to it (Bryne and Maslin, 2015).

Trust in the UNFCCC negotiations took another blow when in January 2014 it was revealed that the US Government negotiators had information during the conference obtained by eavesdropping on meetings of other conference delegations. Documents leaked by Edward Snowden showed how the US National Security Agency (NSA) had monitored communications between countries before and during the conference. The leaked documents show that the NSA provided US delegates with advance details of the Danish plan to 'rescue' the talks should they founder, and also about China's efforts before the conference to coordinate its position with that of India Guardian (2014).

Paris 2015

The failure of COP15 in Copenhagen and its voluntary commitments cast a long shadow over the successive COP meetings, compounded by the revelation by Wikileaks that US aid funding to Bolivia and Ecuador was reduced because of their opposition to the Copenhagen Accord Guardian (2010). It took over five years for the negotiations to recover from the mess created by Barack Obama and the USA negotiators. At COP16 in Cancun and COP17 in Durban the UNFCCC negotiations were slowly put back on track with the aim of getting legally binding targets. Significant progress was made in the REDD+ (Reduced Emissions from Deforestation and Forest Degradation), including safeguards for local people. It was, however, at COP18 in Doha in December 2012 that a second commitment period starting in January 2013 was agreed, to last eight years. This ensured that all Kyoto mechanisms and accounting rules

remained intact for this period, and that parties could review their commitments with a view to increasing them. All this laid the foundations for the possibility of a future global climate agreement, which was agreed at COP21 in Paris in 2015.

The climate negotiations in Paris 2015 were a huge success primarily because the French hosts understood the grand game of international negotiation and used every trick in the book to get countries to work together to achieve an agreement signed by all (Lewis, 2015). The agreement states that the parties will hold temperatures to “well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels”. Paris was a high-stakes game of geopolitical poker. Surprisingly, the least powerful countries did much better than expected. The climate talks were subject to a series of shifting alliances going beyond the usual income-rich northern countries and income-poor global south countries. Central to this was, firstly, the US-Chinese diplomacy as both agreed to limit emissions. Secondly, a new grouping of countries called the Climate Vulnerable Forum forced the 1.5°C target higher up the political agenda, so much so that it is mentioned in the key aims of the agreement (Lewis, 2015). Political support from the Paris Agreement allowed the IPCC to write the seminal 1.5°C global warming report which was published in 2018. This report documented the significant increase in the impact between a 1.5°C and 2.0°C world (IPCC, 2018). It also documented how a 1.5°C world could be achieved - which in essence shows that the world must have net zero carbon emissions by 2050 and then carbon must be taken out of the atmosphere for the rest of the century. The quicker the world gets to net zero the less carbon needs to be extracted from the atmosphere between 2050 and 2100 (Goodall, 2020). The Paris Agreement was just the start of the process because taking into

account all the country pledges and assuming that they will be fulfilled then the world would still warm by about 3°C (Maslin, 2019).

The role of global environmental social movements

There have been three main waves of environmental social movements. The first was in the late 1980s and early 1990s and provided global support for the Rio Summit. The second wave was in 2008 and 2009, focusing on the hope of a major climate deal at the Copenhagen climate conferences. In the UK it was very successful and led to the Climate Change Act in 2008 (Byrne, 2019). As we know, Copenhagen ended in abject failure due to the lack of international leadership, sabotage by the US, lobbying by powerful climate change deniers and the global worries about dealing with the 2008 global financial crash (Maslin, 2021). For almost 10 years the global environmental movement was held back due to the focus on the global economy. This all changed in 2018.

The third wave of the global environmental social movement started in 2018 (Figueres and Rivett-Carnac, 2020). In May 2018 Extinction Rebellion was set up in the UK and launched in October 2018 with over 100 academics calling for action on climate change. The aim of Extinction Rebellion is to use non-violent civil disobedience to compel governments around the world to avoid tipping points in the climate system and biodiversity loss to avoid both social and ecological collapse (Lewis and Maslin, 2018). In November 2018 and April 2019

they brought central London to a standstill, and Extinction Rebellion has now spread to at least 60 other cities around the world.

In August 2018, Greta Thunberg - at the age of 15 - started to spend her school days outside the Swedish Parliament holding a sign saying *Skolstrejk för klimatet* (School strike for climate) calling for stronger action on climate change. Soon other students all around the world started similar school strikes once a month on a Friday and they called the movement 'Fridays for Future' (Thunberg, 2019). It has been estimated that by the end of 2019 there were over 4500 strikes across over 150 countries, involving 4 million school children and this has rising further in 2020 (Fridays for Future, 2020).

In 2018 and 2019 three extremely influential IPCC reports were published. First, in 2018, was the Special Report on Global Warming of 1.5°C which documented what the world needed to do if global temperature rise was to be kept at only 1.5°C (IPCC, 2018). It also showed the positive and negative interactions of climate change mitigation and the Sustainable Development Goals. The second was the special report on the land and how climate change would impact desertification, land management, food security, and the terrestrial ecosystems (IPCC, 2019a). The third was the IPCC Special Report on the Ocean and Cryosphere showing the impacts of climate change on the speed of melting of ice sheets, mountain glaciers and sea ice, and their implications of sea level rise and marine ecosystems (IPCC, 2019b).

This new social movement and the very latest science inspired many corporations to take a leading role (Hawken, 2018). Microsoft has set the agenda for the technology sector with the ambitious target to become carbon negative by 2030. By 2050 they want to remove all the

carbon pollution from the atmosphere that they and their supply chain have emitted since the founding of the company in 1975. Sky has set the agenda for the media sector; as they are already carbon neutral they have pledged that they and their supply chain will go carbon negative by 2030. BP has also declared that it will be carbon neutral by 2050 by eliminating or offsetting over 415 million tons of carbon emissions. These companies form part of a group of over 850 global companies that have pledged to adopt Science Based Targets, meaning, in effect, that they will all have achieved net zero carbon emissions by 2050 (CDP, 2020).

Given all this pressure in 2019, governments all around the world started to declare that we are, in fact, in a climate emergency and action has to be taken. At the time of the publication of this article, over 1,400 local governments and over 35 countries have made climate emergency declarations. Despite the fact that in 2020 the whole world was focused on dealing with the Covid-19 pandemic, climate change remained a major issue (Jones and Maslin, 2020).

Glasgow 2021

This new wave of public global environmental concern meant there were great expectations for COP26 in Glasgow at the end of 2020, co-hosted by the UK and Italy. But due to the Covid-19 pandemic, the resultant lockdowns, and the major impact on both Italy and Britain, this pivotal meeting was postponed until November 2021. This meeting is critical because it is the third meeting of the parties to the 2015 Paris Agreement (CMA3) and is the first global stock-take outlined in the Paris Agreement. COP26 will review the progress made since 2015 and encourage greater commitments and pledges from countries to cut their greenhouse gas emissions. Importantly this will be the first COP meeting where 'net zero' carbon emissions

targets will be the primary global ambition, and the discussion will be about how fast this can be achieved and which countries will lead (Hawken, 2018; Figueres and Rivett-Carnac, 2020; Mann, 2021).

Despite 2020 and 2021 being dominated by the Covid-19 pandemic, the geopolitical landscape around climate change has seismically shifted. First, in June 2019, the UK parliament amended the Climate Change Act (2008) to require the government to reduce the UK's net emissions of greenhouse gases by 100% relative to 1990 levels by 2050. Second, the European Commission is proposing that the EU reduces its GHG emissions by at least 55% by 2030 from 1990 levels, instead of the 40% cut agreed six years ago. This target would be written into EU law and made binding on all 27-member states. This is a major step towards the EU pledge of matching the UK ambition of reaching carbon neutrality by 2050. Third, in September 2020 China's President Xi Jinping announced *via* video-link to the UN General Assembly in New York that the country would aim to reach peak emissions before 2030, followed by a long-term target to become carbon neutral by 2060. China is the world's largest carbon emitter accountable for around 28% of global GHG emissions and up to now has not committed to a long-term emissions goal. Under the Paris Agreement, China had pledged to cut the carbon intensity of its economy by 60-65% against a 2005 baseline. This announcement came after long and detailed discussions between China and the EU concerning climate change.

COP26 marks the re-engagement with the USA, second largest emitter of around 15% of global GHG emissions. President Trump took the USA out of the Paris agreement in 2017 but in accordance with Article 28 of the Paris Agreement, a country cannot give notice of withdrawal from the agreement before three years of its start date in the relevant country.

So, the earliest possible effective withdrawal date by the United States was November 4th, 2020, one day after the 2020 U.S. presidential election. The newly elected President Biden has promised to re-join the Paris Agreement and looks like becoming a strong advocate of collective international action to deal with climate change. For the first time in over a decade there is now hope that the nations of the world can cut greenhouse gas emissions significantly and start the journey to a cleaner, greener, safer, healthier and more sustainable world.

Conclusion

In the last 30 years the amount of human-emitted carbon dioxide has doubled. This represents a collective failure of the world's leaders to focus on this issue. As a consequence, the ambition of the climate change negotiations has increased. The Kyoto Protocol aimed for developed countries to cut emissions by 5.2% relative to their 1990 levels, while the Glasgow COP26 will aim to get all countries to agree to be net carbon zero as early as possible in this century. No one is underestimating how difficult but important it is to get a deal in Glasgow.

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