Examination of COP 28

An in-depth analysis of key outcomes and controversies from Dubai, 2024.

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# Introduction

In the wake of the global climate crisis, environmental concerns are at the forefront of news stories, political agendas, and scientific research to assess both the existing impacts and future projections related to climate change. Climate change impacts such as increased wildfires, floods, droughts, and other extreme weather events not only cause widespread destruction but also threaten human livelihoods by displacing people in affected regions (Islam and Khan 2018). Remote and Indigenous communities are at a more significant risk from climate change damage, as many of these communities are already disadvantaged due to their isolation, infrastructure, and access to healthcare (Hall and Crosby 2022). Furthermore, impacts of global climate change have been shown to be drive significant biodiversity loss across taxa (Habibullah et al. 2022). These and many other concerns related to climate change create a need for immediate and direct action from global powers to address our global environmental impact.

The annual Conference of the Parties (COP) is a UN Climate Change Conference with the goal of gathering nations, special interest groups, and other concerned parties to discuss climate change and develop goals and objectives to address this growing issue. The most recent meeting was COP28, which took place from November 30 to December 12, 2023, in Dubai, United Arab Emirates (UAE). Thousands of delegates were in attendance, including national leaders, youth representatives, business leaders, journalists, and other stakeholders (GOV CAN 2023). Some key points of discussion included transitioning away from fossil fuels, promoting renewable energy sources, establishing a loss and damage fund, and examining a global stock-take of each nations’ contributions to reducing greenhouse gas emissions to keep global average temperatures below the 1.5°C goal established in the 2015 Paris Agreement (World Economic Forum 2023). In this summary, we critically review the main outcomes of COP28, any limitations to meeting these goals, and sources of controversy resulting from the meeting. We first address the location and attendees, before analyzing significant outcomes and what they mean for the ‘big picture’ of global climate action.

Overview

## **Location and Venue**

COP28 was held in Dubai, United Arab Emirates, within the Expo City Dubai venue. The choice of location became a source of controversy, stemming from the country’s economic interests. The economy of the United Arab Emirates relies on the extraction and export of fossil fuels, with 30% of its GDP coming from oil and gas. Dubai is also ranked one of the highest carbon dioxide (CO2) emitters per capita in the world. These factors make it an interesting location for an international climate conference to reduce fossil fuels and global CO2 emissions. However, this is not the first time COP has been held in a fossil fuel dominated state. COP18 in 2012 was held in Qatar, another oil dominated nation, while the conference has been held in coal dominated Poland on 3 separate occasions. The goal of holding these major climate conferences in a fossil fuel dominated state is to open the conversation regarding a transition from fossil fuels - and have these countries at least be part of the solution. Whether this strategy has worked in the UAE remains to be seen.

The actual venue, Expo City Dubai, is an alleged 7-billion-dollar building. However, there is no actual report breakdown of how much this venue cost to build or how much the United Nations contributed to this build. The only current reports of the expense of this year's venue are in statements regarding the loss and damage fund. Expo City Dubai was not just used for COP28, but also hosted the World Expo in 2020 when the venue initially opened. Expo City Dubai was built for permanency and will continue to host large international events. Post Cop28, the 100-acre area has been transformed into a ‘15-minute sustainable city’ in which any and all basic life necessities can be accessed within 15 minutes of walking. The goal for Expo City Dubai is to be “The human-centric city of the Future” by integrating “environmental, social, and economic sustainability at every step from building designs, operating, and learning to empower the younger generations” to lead urban city development. The cost to live within the world’s most ‘sustainable urban development’ is 4.6 million dollars Canadian.

## **Attendees**

Within only one year, attendance at COP has seen a significant increase, nearly doubling from 49,704 at COP27 to an impressive 84,000 attendees at COP28. This significant growth not only underscores the growing global commitment to addressing climate change but also sets the stage for unprecedented collaboration. This diverse assembly, with over 160 world leaders (with minimal absentees), paints a promising picture of international cooperation to confront the urgent challenge of climate change head-on.

Additionally, the diverse and inclusive turnout at COP28 is a testament to the conference's commitment to a holistic approach. Participants from different countries, ethnicities, and walks of life are converging, showcasing the importance of considering multifaceted perspectives in addressing climate change. Notably, marginalized groups, including youth, women, indigenous representatives, civil society members, and various sectors of the economy, have seen increased representation. This inclusivity not only empowers marginalized communities but also injects a sense of urgency into the climate agenda, recognizing that diverse stakeholders are vital for comprehensive and effective solutions.

However, amid this inclusivity, a notable challenge emerges with the fossil fuel industry's representation surging almost fourfold from COP27 to COP28 (increased from 636 to 2456 representatives). While constituting approximately 3% of the total attendees, concerns arise regarding the potential influence of fossil fuel representatives on climate negotiations and policy outcomes. Striking the delicate balance between inclusion and the primary goal of transitioning away from fossil fuels becomes very important, emphasizing the need for careful navigation in shaping the future of global climate action.

Amid these challenges, COP28 reflects a dynamic landscape where attendees represent different capacities and backgrounds. While some nations and individuals are positioned to make significant contributions, others face constraints due to poverty, lack of infrastructure, or geopolitical factors. The absence of figures like Israeli Prime Minister Benjamin Netanyahu and Foreign Minister Eli Cohen, attributed to the war in Gaza, illustrates external challenges that hinder certain participants. Nevertheless, the overall global turnout with shared agreement on set goals demonstrates an extraordinary collective commitment to addressing the multifaceted challenges posed by climate change. Canada, leading with a proactive approach, exemplifies a comprehensive, whole-of-society commitment by including diverse representatives from various sectors, parliamentarians, Indigenous communities, and youth.

A graph of a graph showing the number of fuel

Description automatically generated with medium confidence

Figure 1. Proportion of attendees representing fossil fuel companies at COP27 and COP28.

# Key Outcomes

## **The Global Relationship to Fossil Fuels**

The global relationship with fossil fuels is multi-faceted and complicated. Fossil fuels were formed by marine organisms millions of years ago and are used today as energy resources around the world (Hubbert 2021). These resources are non-renewable and need to be managed carefully (Hubbert 2021). The burning of fossil fuels, although extremely important for energy production, is environmentally damaging (Hubbert 2021). The burning of fossil fuels pumps large amounts of CO2, methane (CH4), and sulphur dioxide (SO2) (USEPA 2015). These pollutants enable the greenhouse effect, which warms the overall temperature of the Earth (Chahal 2020). This phenomenon affects every single country on Earth, which is why fossil fuel production has been spoken about at COP28 and many COP meetings prior. The greenhouse effect alters natural climate patterns, which results in dangerous conditions that impact a large portion of the human population (Chahal 2020, Mitchell et al. 2024). Due to the warm climate, glaciers are melting and causing the sea levels to rise (Mitchell et al. 2024). The human populations living on coastlines and islands are at high risk of displacement (NCCEH 2022). Furthermore, the increase of hot and dry conditions has promoted large-scale intense fires, causing further displacement of those who live inland (Doerr et al. 2022). There are a multitude of changes to the global climate that are a direct result of fossil fuel energy production, so why hasn’t there been any significant change? The truth is, energy production using fossil fuels is a global multi-trillion dollar industry (Montgomery 2010). Some countries, like the United Arab Emirates, have made fortunes via oil production, and therefore have too much ‘skin in the game’ to risk making any changes (International Trade Administration 2023). Many countries, including Canada, have a large economy surrounding burning fossil fuels. Not only is the economy at risk when suggesting any changes, but the entire population framework is based on the consumption of fossil fuels. Although there have been no significant or successful changes to the global system surrounding the production and consumption of fossil fuels, the parties at COP28 have come to an agreement to transition away from them. This is due to the highest urgency of required climate action that has ever been required before.

## **Transitioning Away From Fossil Fuels**

The decision to transition away from fossil fuels at COP28 was really a historical achievement compared to past meetings. COP26 was the first meeting where it was acknowledged in the decision text that fossil fuels are contributing to climate change, and the only outcome from this meeting was to try and “phase down unabated coal power” (Thomson and Shine 2023). At COP27, there was open discussion about the need to phase down fossil fuels, but any kind of initiatives were quickly shut down by oil and gas-producing countries, and instead the focus was to increase advocating for carbon capture technology (Thomson and Shine 2023). Even though fossil fuels are one of the main drivers of climate change, it wasn’t until COP28 that countries were able to come to an agreement. But what does a transition away from fossil fuels look like? The goals discussed at COP28 included tripling renewable energy capacity globally by 2030, speeding up efforts to reduce coal/gas use, and accelerating technologies such as carbon capture and storage (Volcovici et al. 2023).

Though a decision was made regarding fossil fuels at COP28, some people are still skeptical about the word “transition”. Transitions take time and we really don’t have much time, as we are likely to cross the global warming threshold of 1.5°C. But others argue the truth, that the necessary actions to reduce fossil fuel use will take time. Countries can’t just unplug their current energy systems without building up the capacity for a new energy system (Thomson and Shine 2023). Some say there is no determined end point to a transition, which caters to countries that are still heavily reliant on fossil fuels, and that maybe stronger wording should have been used such as “phase out” or “phase down”. Some countries feel that they already have been working towards transitioning away from fossil fuels for decades and this doesn’t really impact their climate change goals. Another thing to remember is that COP places no legal obligation on its signatories to meet the terms of agreement, countries are expected to take individual initiative, by updating their own climate change legislation and nationally determined contributions. Some believe that the COP process is a bit meaningless with a lack of accountability and enforcement (Thomson and Shine 2023). Even though there is controversy with COP28’s fossil fuel agreement, it is remarkable that so many countries were able to come to a consensus that will hopefully pave the way for potential meaningful action.

## **Tripling Nuclear Energy**

In line with the goal to transition away from fossil fuels, another of the major outcomes of COP28 was the Declaration to Triple Nuclear Energy. The goal of this declaration is to triple the global capacity for nuclear energy by 2050, encouraging financial institutions to include nuclear energy in their lending policies (DOE 2023). Nuclear energy is an alternative energy source to fossil fuels that can produce a large amount of power (IAEA 2024). It also offers the potential of nuclear fusion as an energy source (NGS 2023). Despite these benefits, there are some restrictions to achieving this goal, such as the timeline, the upfront cost required to build the necessary infrastructure, and the environmental concerns related to nuclear energy.

An alternative to fossil fuels that doesn’t produce greenhouse gasses will be instrumental in combating climate change (NGS 2023). The Declaration recognizes that nuclear energy has a key role in achieving the goal of global net-zero greenhouse gas emissions by 2050 (DOE 2023). If we are to transition away from fossil fuels to limit the increase in global temperatures, a transition towards other sources such as renewable and nuclear energy are necessary.

The amount of power needed to meet current and growing energy demands cannot be provided by renewables alone (IAEA 2024). Nuclear energy can provide a large amount of reliable, stable power to the electrical grid, and can be used as a backup to renewable energy sources such as solar and wind, which can be variable (IAEA 2024).

The current application of nuclear energy is nuclear fission, which involves harvesting the energy released from splitting uranium atoms (NGS 2023). Nuclear fusion, however, is a much more viable option for the future of energy, harvesting energy released from fusing hydrogen isotopes. Currently, reactors do not have the capability to achieve this at a large level (NGS 2023). However, The International Atomic Energy Agency supports research on nuclear fusion with the largest fusion experiment (International Thermonuclear Experimental Reactor) currently being built in France (Picot 202, IAEA 2024). At COP28, the Fusion Energy Task Force was created, with the goal of “accelerating the commercialization of fusion energy” (IAEA 2023). The fuel for nuclear fusion is deuterium and tritium, which are heavier isotopes of hydrogen. Deuterium can be found in water, especially in the oceans, whereas Tritium is rare and can be found in our atmosphere but can also be synthesized. Fusion produces clean energy, much like fission, but fusion doesn’t produce radioactive waste as a byproduct Instead, its byproduct is helium. It is also a highly efficient energy source, producing almost 4 million times more energy than coal or oil, and 4 times more energy than nuclear fission (Mortillaro 2022).

The timeline set by the Declaration is very likely a limitation to achieving its goals, as 26 years may not be enough time to effectively implement actions. Currently, about 10% of the world’s electricity comes from nuclear power (WNA 2023), so an increase to 30% is needed. To put things into perspective, in the 26 years between 1996 and 2022, the global production of nuclear power increased from approximately 2,406 to 2,632 TWh (terawatt-hours), equivalent to an increase of only about 9% (OWD 2023).

Although some large financial institutions such as the European Investment Bank and the Canada Infrastructure Bank do include nuclear energy in their lending policies, the cost to build infrastructure is significant (EIB 2019, CIB 2022). For example, in 2022 the CIB invested $970 million to Canada’s first Small Modular Reactor, located in Clarington, Ontario (CIB 2022). However, the 2023 federal budget did include $20 billion to the CIB, which will likely fund similar projects in Alberta, Saskatchewan, and New Brunswick (CNA 2023, CIB 2022).

Environmental concerns also restrict advancements of nuclear energy. The environmental impacts of mining for uranium, the fuel for nuclear fission, are like other types of metal mining. Such impacts include habitat disturbance and risk of air or water pollution (WNA 2017). Power generation also produces radioactive waste, which needs to be treated and stored in specialized facilities to avoid environmental contamination (NGS 2023).

Despite these limitations, 25 countries endorse the Declaration to Triple Nuclear Energy. The focus is on the benefits that nuclear energy has to offer, and its role in keeping a limit to the increase in global temperatures (DOE 2023).

## **Green Shipping Corridors**

Another important consideration to be made in the transition away from fossil fuels is that the transportation industry will need to be completely reimagined. The transportation sector represents the second largest global carbon contributor, accounting for a staggering 20.2% of annual emissions (SAS 2023). Within this sector, the maritime shipping industry is responsible for 11% of these emissions, coming in third place behind commuter cars and heavy trucks as the worst offenders (SAS 2023). If no changes are made to global shipping lanes, it’s expected the maritime industry could produce 50-250% more emissions by 2050 (SAS 2023). Decarbonizing this sector would be a significant step in curbing global carbon emissions and keeping global average temperatures below the 1.5°C goal.

A desire to progress in the sector was expressed during COP28 when Canada’s Minister of Transportation along with members from the Canadian First Nations Climate Initiative (FNCI), signed a Memorandum of Understanding in collaboration with the United Arab Emirates, Japan, and Korea. This document seeks to establish a green shipping corridor connecting Canada's West Coast to Asia and the United Arab Emirates (TC 2023).

This corridor would represent the shortest shipping route between North America and Asia (TC 2023). Although the declaration is not legally binding, it’s encouraging to note that members of the FNCI were not only included in the discussions, but they were also optimistic about both the initiative and their involvement. Furthermore, FNCI members stated that they would like Canada’s First Nations to be leaders and pioneers in the decarbonization of the global shipping industry (Rompf 2023). Transport Canada has already committed over 165 million dollars to the initiative which plans to utilize state-of-the-art sprinter ships that are smaller, faster and use green fuels such as hydrogen (TC 2023). The corridor will also be used for the distribution of clean fuels such as ammonia, hydrogen, or methanol - all of which will be produced in Canada (TC 2023). The creation of new shipping infrastructure and the export of green fuels could stimulate the creation of new jobs. This could help offset some of the economic losses experienced from transitioning away from fossil fuels. However, the current conflict in the Red Sea illustrates how political turbulence can even affect the security of established global shipping lanes. This could represent a potential challenge in implementing these measures. Additionally, increased shipping traffic on the west coast could have harmful effects on the aquatic ecosystem.

## **Methane Reduction Pledges**

While CO2 was a priority at COP28, the conference also addressed that global atmospheric methane production is rapidly increasing. Over the next 20 years, methane presents more than 80 times the global warming potential of CO2 (World Economic Forum 2023). Unlike carbon dioxide, however, methane only takes 12 years to degrade in the atmosphere (United Nations News 2023). Getting control of anthropogenic methane production will likely determine the rate of warming in the short to medium term. Methane has become a popular item for governments and organizations to tackle because (if reductions are successful) it is expected to provide a much quicker effect on global temperatures.

During COP28, The World Bank launched an 18-month ‘blueprint for methane reduction’ aimed at cutting methane production from activities like rice farming, livestock operations, and waste management. Along with the blueprint are some significant pledges being made. 150 countries pledged to halve methane production by 2030, including the recent addition of Turkmenistan and Kazakhstan which are major producers of methane. 50 oil companies, representing 40% of global oil production, have pledged to reach near-zero methane emissions by 2030. Unfortunately, 60% of the world's oil companies did not sign the pledge and will not be changing their processes.

Methane is the largest component of natural gas (up to 97%). It is released during the fracking which releases the natural gas and at multiple steps between processing and delivery (Al Jazeera 2023). These pledges made by companies primarily aim at reducing leaks, which are existing inefficiencies that cause losses in revenue for natural gas suppliers. More than 300 civil society groups have criticized the pledge, saying it's a “smokescreen to hide the reality that we need to phase out oil, gas and coal” (Al Jazeera 2023). As methane currently accounts for one third of current global warming, there is a notion that reducing methane is going to be an easy way to reduce warming. However, critics worry that this is only being spearheaded to allow more time for oil and gas production and use.

## **Loss and Damage Fund**

Addressing the cost of climate change damages, the Loss & Damage Fund was first agreed upon at COP27 in Sharm El Sheikh, Egypt. This fund became operational during the first day at COP28 in Dubai, marking its official recognition after more than 30 years of mention by the United Nations Framework Convention Climate Change (UNFCCC) (Henderson 2023). The Loss & Damage Fund is meant to support developing nations in dealing with the negative impact of climate change, regarding both economic and non-economic loss and damages. The events range from either extreme weather such as floods or droughts, to a slow onset of events such as sea levels rising due to global warming from increased Greenhouse Gas (GHG) emission. Highlights of other perceived loss and damages include forced displacement and impacts on cultural heritage, human mobility and the lives and livelihoods of local communities (Richards et al 2023).

Since its official declaration, more than $700 million (USD) was pledged towards this fund, with immediate funding coming from the UAE, Germany, UK, Japan, and the U.S. However, it was estimated from developing countries that $100 billion is needed annually to help mitigate these losses and damages. This is still far less than the estimated $400 billion needed to help these countries (Richards et al 2023). Just in 2022 alone, the quantifiable economic cost in developing countries of extreme events like cyclones and floods was greater than $100 billion.

The Loss & Damage Fund was agreed to be hosted by the World Bank for a four-year term. This was an unhappy compromise by representatives of developing nations as they wanted the funds to be held by an independent institution, disliked that the major shareholder of the World Bank was the United States and worried about the interests of the bank, as well as being upset with the extreme negotiated fee of 24%. This would mean that every 1 in 4 dollars set towards the fund would be kept by the World bank (Lo 2023).

Future considerations for the Loss & Damage Fund at COP29 require further clarification on terms and definitions. The clarification primarily needed refers to: how money is distributed, who is eligible, and what amounts of money countries should be pledging to the fund. In the negotiations before the official recognition, parties were at an impasse regarding which countries are still deemed developing and who should receive funding first. This is due to an outdated classification of developed versus developing countries from 1992 (Lo 2023). As is seen, the Loss & Damage Fund is a step in the right direction to help accommodate countries who need the assistance, although a greater commitment and participation from the global community Is needed to properly address climate change.

## **Transitioning Food Systems**

Another topic discussed at COP28 was transforming food systems; how the world can address the need for more resilient food systems for people, nature, and climate. Currently 30% of all food produced annually is lost before it can be consumed, equating to about 1.3 billion tons per year. In developing countries around 40% is lost during the post-harvest and processing levels, whereas in industrial countries 40% of losses happen at retail and consumer levels (WFP 2020). A call-to-action was formed to address issues such as halving food waste, combating malnutrition and hunger, the need for access to a healthy, affordable diet, and economic stresses. They also recognized the need for reducing greenhouse gas emissions from the food system, which is currently sitting higher than the transport industry at 24% of the global outputs (this value includes land uses such as agriculture and forestry) (FST 2017).

This call-to-action addresses many of the issues that face the world today in regard to food systems, including but not limited to adapting and building resilience to climate risks, shocks and other stresses, aligning food systems with the 1.5°C goal, and transitioning into renewable energy sources (COP28 UAE 2023). Not only does this call-to-action address these climate issues, it also prioritizes improving food accessibility and affordability in nutritious and locally appropriate diets, and the upscaling of sustainable food production; recognizing plans needed to be in place for water resilience and quality, soil health, conserving biodiversity and reversing land degradation. It was declared that these critical actions must be “time-bound, aligned, holistic, global targets for food systems by COP29 at the latest”, which allows for the 159 endorsers to bring forward achievable plans to the next COP meeting (Race to Zero 2023).

The Big Picture

## **Global Stock-Take**

COP28 marked the first year since the Paris Agreement of 2015 that a global stock take occurred, and moving forward they will occur every 5 years. Thus, the next stock take will take place in 2028. During the global stock take, nations must ask questions such as “Where are we?”, “Where do we want to go?”, and “How do we get there?”, in terms of climate change. The global stock take enables countries and stakeholders to see where they’re collectively making progress towards meeting the Paris agreement, and where their efforts need to improve. The Paris Agreement is a legally binding international treaty on climate change that was adopted by 196 parties. The Stock take is also a reminder that countries must submit their assessment of their nationally determined contributions (NDC) (to meeting their goals) by the following year (UNFCCC 2023).

Nationally determined contributions, outlined in the Paris agreement, are embodied in all the signing countries in 2015. Each country uses NDC to show how they are making progress towards lowering their emissions and adapting to climate change. The Paris agreement requires countries to prepare, communicate, and maintain continuous NDC’s that are trending towards being successful (UNFCCC 2023). Typically, countries submit their NDC’s every 5 years, with the first submission in 2020. Countries were submitting them early and on an annual basis. This year 196 parties submitted their NDC’s (UNFCCC 2023). According to today's reports, emissions are no longer increasing by 2030. If the latest set of NDC’s are implemented, emissions will only increase 8.8% instead of 10.6% by 2030, relative to 2010 (UN Climate 2023).

One of Canada’s NDC’s is the pledge to halt and reverse forest and land degradation by 2030 (GOV CAN 2023). Most parties involved in NDC’s outlined options with the greatest estimated net emission reduction potential. These options are: Solar energy, Wind energy, reducing conversion of forests and other ecosystems, improving energy efficiency in industry, and reducing fluorinated gas emissions. “NDCs remain the cornerstone of our shared vision of achieving the Paris targets, including keeping the target below 2 degrees and aspiring to limiting the increase to below 1.5 degrees” (UN Climate 2023).

## **Keeping 1.5°C Alive**

The finalization of COP28’s global stock take marked the first time that this had been completed since the 2015 Paris Agreement (World Economic Forum 2023). The global stock take allows countries and stakeholders throughout the world to visualize the progress being made towards climate change (Unfcccint 2021). The results from the COP28 stock take, however, were discouraging. The key findings stated that achieving the 1.5°C climate change goal, which has been a very public target for many years, is highly unlikely. During the Paris agreement in 2015, countries that signed this document agreed to keep global average temperatures to a maximum of 1.5°C above pre-industrialised temperatures (United Nations 2015). Pre-industrialized in this context referring to the anthropogenic impacts on our climate since the industrial revolution. The number 1.5°C was chosen for a few specific reasons. Originally, the Cancun agreement in 2010 realized the need to hold global average temperatures below 2°C above pre-industrialised levels (DiLiberto 2024). However, as research evolved, it was found that for specific countries (especially those with vulnerable ecosystems) the risk of extreme damage because of climate change increases significantly at less than 2°C (‌DiLiberto 2024). Therefore, the Paris agreement in 2015 decided upon 1.5°C global average temperatures as a global goal to combat climate change. When readdressing this goal during COP28, however, the global stock take did not show what was hoped. After this COP meeting, we are at a critical crossroads where drastic measures must be taken, or we risk going to the point of no return. The World Economic Forum 2023 states that to limit our global warming to 1.5°C, global greenhouse gas emissions will need to be reduced by approximately 40% by 2030. While this isn’t exactly good news, it is not all negative. A positive outcome of COP28 with regards to the 1.5°C goal is the recognition that it may no longer be feasible. Although this does not seem like good news, we are acknowledging on an international scale that what we are currently doing to mitigate climate change is not enough. Hopefully, this will propel us to make some real change and come with some hard-set goals to COP29.

So, what needs to be done to keep the 1.5°C goal in reach? There are many things that can and need to be done to mitigate climate change on an international level. Many of these points were brought up and addressed during the most recent COP meeting and have been addressed throughout this report. A few of the main ideas to keeping the door open to 1.5°C is increasing renewable energy and nuclear energy capacity, the phase-out of fossil fuels, cutting methane emissions and more (Birol F 2023). With dedication towards these goals, hopefully 1.5°C can be kept alive.

## **Linking Climate Action With Nature Conservation**

With the discussion of climate change impacts on ecosystems, a significant outcome of COP28 was linking climate action with nature conservation. This outcome brings forward the need to protect and restore terrestrial and marine ecosystems. These restored ecosystems are important in meeting the 1.5°C temperature goal. Furthermore, this is the first pledge of its kind to be formally recognized by the UN Framework Convention on Climate Change.

Forest restoration will take place on degraded land to increase the capacity of carbon storage in forests around the world. Additionally, marine ecosystems are vital in absorbing high amounts of carbon and producing up to 50 percent of the oxygen on earth, and thus restoration of these systems will also contribute to combating climate change. Having intact ecosystems will promote wildlife biodiversity and help endangered species. They also will encourage local and global climate to be more stable and predictable.

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