

International Organizations Working on Climate Change

A brief timeline of international climate change initiatives

1980 – First International Climate Program

The World Climate Research Programme (WCRP) was established in 1980 by the World Meteorological Organization (WMO) in Geneva and the International Council of Scientific Unions (ICSU) in Paris. It gave a critical boost to climate science, particularly in relation to the numerical simulation of atmospheric and oceanic phenomena.

November 1988 – Creation of the IPCC

Starting in the 1970s, climate science matured, building on advances in numerical modeling and satellite imaging. But to understand the causes, challenges and consequences of climate change, scientific knowledge needed to be shared beyond borders. That is why the United Nations (U.N.) set up the in November 1988. The IPCC's role is to prepare and publish reports that provide a clear and up-to-date picture of the current state of scientific knowledge relating to climate change.

June 1992 – Rio Earth Summit

The international community kicked off the fight against climate change in June 1992 in Rio de Janeiro, Brazil, at the second Earth Summit. Following the conference, 166 countries signed the United Nations Framework Convention on Climate Change (UNFCCC), which acknowledges humanity's role in global warming. Every year, a Conference of the Parties (COP) brings together all of the countries that have ratified the Convention, which totaled 197 as of 2021. This summit also formalized the notion of based on three pillars: economic, social and environmental.

December 1997 – Kyoto Protocol

This international emissions reduction Agreement was adopted on December 11, 1997, at the third Conference of the Parties, in Kyoto, Japan, but did not come into effect until February 2005. The goal was to reduce emissions of six greenhouse gases by 5.2% versus 1990 levels at some point between 2008 and 2012. Various initiatives were accordingly introduced to curb emissions by the most developed countries.

January 2005 – Launch of the European Union Emissions Trading System

The countries of the European Union took the initiative to set up their own "carbon exchange". Under the scheme, companies responsible for high levels of carbon emissions are granted a certain number of "emission allowances". If they exceed their limit, they can buy allowances from other companies that do not need them.

December 2009 – Copenhagen Climate Change Conference

The parties to the UNFCCC met in Copenhagen in December 2009 to forge a new agreement to succeed the. Although often considered a failure, the Copenhagen conference can be credited with officially defining the maximum acceptable increase in global temperature as

2°C above pre-industrial levels. However, the participants were unable to reach a binding agreement on greenhouse gas emissions reduction targets to keep global warming below this threshold.

December 2010 – Cancun Climate Change Conference and Green Climate Fund

At the U.N. Climate Change Conference in Cancun, Mexico, the parties agreed to establish the Green Climate Fund, endowed with \$100 billion a year from 2020, to help developing countries adopt initiatives to combat climate change and deforestation. However, non-governmental organizations (NGOs) have expressed their dissatisfaction with the way in which the fund is financed.

December 2015 – Paris Agreement

The COP 21 summit in Paris ended in a compromise that, for the first time in history, every country in the world agreed to. The resulting Paris Agreement sets the international community the goal of limiting global warming to “well below” 2°C in this century. It acknowledges the need for developed countries to provide financial support and technology transfers to developing countries. The accord further stresses the importance of the role played not only by states, but also by cities, regions, businesses and individuals in making this transition.

October 2018 – September 2019 – Three IPCC Reports

IPCC climate experts from around the world published three comprehensive reports in the space of one year. The first deals with the consequences of an average temperature rise of 1.5°C by 2100, the second with the effect of global warming on land, and the third with its impact on the ocean and the atmosphere. These reports strengthened the international community's resolve in taking voluntary measures to curb climate change.

December 2019 – European Green Deal

The European Green Deal, adopted by the European Council in December 2019, primarily aims to achieve carbon neutrality by 2050; that is, to ensure that the European Union does not emit more greenhouse gases than it can absorb (known as “net-zero emissions”). Shortly after the deal was announced, China made a similar pledge to have emissions “peak” before 2030 and achieve carbon neutrality by 2060. The United States, which had withdrawn from international efforts under Donald Trump's presidency, returned to the world stage in early 2021 following the election of Joe Biden.

March 2023 - The 6th IPCC report Launched in 2021, the IPCC's sixth assessment report will be published in March 2023. It notes an increase in risks (waves, extreme precipitation, droughts, melting of the cryosphere, etc.). Climate action had to be stepped up immediately, and emissions had to be cut by 45% by 2030 and brought to "net zero" by 2050. The European Parliament also voted to ban the sale of new petrol and vehicles by 2035.

1. United Nations

1.1 The Paris Agreement

To tackle climate change and its negative impacts, world leaders at the UN Climate Change Conference (COP21) in Paris reached a breakthrough on 12 December 2015: the historic Paris Agreement.

The Agreement sets long-term goals to guide all nations to:

- substantially reduce global greenhouse gas emissions to hold global temperature increase to well below 2°C above pre-industrial levels and pursue efforts to limit it to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change
- periodically assess the collective progress towards achieving the purpose of this agreement and its long-term goals
- provide financing to developing countries to mitigate climate change, strengthen resilience and enhance abilities to adapt to climate impacts.

The Agreement is a legally binding international treaty. The Agreement includes commitments from all countries to reduce their emissions and work together to adapt to the impacts of climate change, and calls on countries to strengthen their commitments over time. The Agreement provides a pathway for developed nations to assist developing nations in their climate mitigation and adaptation efforts while creating a framework for the transparent monitoring and reporting of countries' climate goals.

The Paris Agreement provides a durable framework guiding the global effort for decades to come. It marks the beginning of a shift towards a net-zero emissions world. Implementation of the Agreement is also essential for the achievement of the Sustainable Development Goals.

Mode of Work: Implementation of the Paris Agreement requires economic and social transformation, based on the best available science. The Paris Agreement works on a five-year cycle of increasingly ambitious climate action -- or, ratcheting up -- carried out by countries. Since 2020, countries have been submitting their national climate action plans, known as nationally determined contributions (NDCs). Each successive NDC is meant to reflect an increasingly higher degree of ambition compared to the previous version. In their NDCs, countries communicate actions they will take to reduce their greenhouse gas emissions in order to reach the goals of the Paris Agreement. Countries also communicate in the NDCs actions they will take to build resilience to adapt to the impacts of rising temperatures.

In 2023, the first "global stocktake" of the world's efforts under the Paris Agreement concluded at COP28 with a decision on how to accelerate action across all areas – mitigation, adaptation, and finance – by 2030, including a call on governments to speed up the transition away from fossil fuels to renewable energy such as wind and solar power in their next round of climate commitments. To better frame the efforts towards the long-term goal, the Paris Agreement invites countries to formulate and submit long-term strategies. Unlike NDCs, they

are not mandatory. The operational details for the practical implementation of the Paris Agreement were agreed on at the UN Climate Change Conference (COP24) in Katowice, Poland, in December 2018, in what is colloquially called the Paris Rulebook, and finalized at COP26 in Glasgow, Scotland, in November 2021.

The Paris Agreement provides a framework for financial, technical and capacity building.

Finance: The Paris Agreement reaffirms that developed countries should take the lead in providing financial assistance to countries that are less endowed and more vulnerable, while for the first time also encouraging voluntary contributions by other Parties. Climate finance is needed for mitigation, because large-scale investments are required to significantly reduce emissions. Climate finance is equally important for adaptation, as significant financial resources are needed to adapt to the adverse effects and reduce the impacts of a changing climate.

Technology: The Paris Agreement speaks of the vision of fully realizing technology development and transfer for both improving resilience to climate change and reducing GHG emissions. It establishes a technology framework to provide overarching guidance to the well-functioning Technology Mechanism. The mechanism is accelerating technology development and transfer through its policy and implementation arms.

Capacity-Building: Not all developing countries have sufficient capacities to deal with many of the challenges brought by climate change. As a result, the Paris Agreement places great emphasis on climate-related capacity-building for developing countries and requests all developed countries to enhance support for capacity-building actions in developing countries.

Progress Tracking: With the Paris Agreement, countries established an enhanced transparency framework (ETF). Under ETF, starting in 2024, countries will report transparently on actions taken and progress in climate change mitigation, adaptation measures and support provided or received. It also provides for international procedures for the review of the submitted reports.

The information gathered through the ETF will feed into the Global stocktake which will assess the collective progress towards the long-term climate goals. This will lead to recommendations for countries to set more ambitious plans in the next round.

1.2 Nationally Determined Contributions (NDCs)

Nationally Determined Contribution, is a climate action plan to cut emissions and adapt to climate impacts. Each Party to the Paris Agreement is required to establish an NDC and update it every five years. In their NDCs, countries communicate actions they will take to reduce their greenhouse gas emissions in order to reach the goals of the Paris Agreement. Countries also communicate in their NDCs actions they will take to build resilience to adapt to the impacts of climate change.

Long-Term Strategies: To better frame the efforts towards the long-term goal, the Paris Agreement invites countries to formulate and submit long-term low greenhouse gas emission development strategies (LT-LEDS). LT-LEDS provide the long-term horizon to the NDCs. Unlike NDCs, they are not mandatory. Nevertheless, they place the NDCs into the context of countries' long-term planning and development priorities, providing a vision and direction for future development.

Mode of NDC Work: Climate change, unlike many other issues, requires a wholesale transformation of our economies and societies. No corner will go untouched – energy, industry, agriculture, transport, institutions, individuals and more will need to make changes to reduce emissions and adapt to climate consequences that are already happening.

That's a daunting prospect – but not an unsolvable one. Having a plan helps countries understand and orchestrate the many different elements required to reduce emissions and adapt to protect lives and livelihoods, as soon as possible. Every bit of warming matters. With urgent and ambitious action, the world will avoid surpassing a threshold of 1.5 degrees Celsius, after which climate impacts would become even worse than they already are.

NDCs factor in the understanding that countries have to balance emissions reductions with other critical demands like ending poverty. Further, the biggest emitters need to make the most dramatic and rapid cuts.

That said, every action counts, and every country has to push for change. Some of the most ambitious plans so far come from countries like the small island developing States. They know the urgency of climate action because they are already experiencing climate-related rises in sea level that for some could swamp their national territory.

Countries have every reason to comply with the terms of the Agreement. It is in their interest to implement the agreement, not only in terms of achieving the benefits of taking climate action, but also to show global solidarity. There is no benefit to flouting the Agreement. Any short-term time gain will be short-lived. It will undoubtedly be overshadowed by negative reactions, by other countries, financial markets, and most important, by their citizens.

2. United Nations Framework Convention on Climate Change (UNFCCC)

The United Nations Framework Convention on Climate Change (UNFCCC) is one of the three "Rio Conventions" adopted at the first Rio Earth Summit in 1992. Since it took effect in 1994, the Convention's overarching objective is to prevent dangerous human-made interference on the climate system by pushing for the reduction of greenhouse gas emissions. With 198 Parties, the Convention has near universal membership.

The UNFCCC established agreements between the Parties to act on climate change. As such, the UNFCCC has led to the adoption of the Kyoto Protocol in 1997, which sets binding emission reduction targets, and the Paris Agreement in 2015, which goal is to limit global warming to well below 2, preferably to 1.5 degree Celsius, compared to pre-industrial levels. The implementation of the Convention, the Kyoto Protocol and the Paris Agreement is managed by a complex architecture of bodies, supported by the UNFCCC secretariat.

The Convention:

- Recognized that there was a problem. The UNFCCC borrowed a very important line from one of the most successful multilateral environmental treaties in history (the Montreal Protocol, in 1987): it bound member states to act in the interests of human safety even in the face of scientific uncertainty.
- Sets a lofty but specific goal. The ultimate objective of the Convention is to stabilize greenhouse gas concentrations "at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system." It states that "such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."
- Puts the onus on developed countries to lead the way. The idea is that, as they are the source of most past and current greenhouse gas emissions, industrialized countries are expected to do the most to cut emissions on home ground. They are called Annex I countries and belong to the Organization for Economic Cooperation and Development (OECD). They include 12 countries with "economies in transition" from Central and Eastern Europe. Annex I countries were expected by the year 2000 to reduce emissions to 1990 levels. Many of them have taken strong action to do so, and some have already succeeded.
- Directs new funds to climate change activities in developing countries. Industrialized nations agree under the Convention to support climate change activities in developing countries by providing financial support for action on climate change-- above and beyond any financial assistance they already provide to these countries. A system of grants and loans has been set up through the Convention and is managed by the Global Environment Facility. Industrialized countries also agree to share technology with less-advanced nations.
- Keeps tabs on the problem and what's being done about it. Industrialized countries (Annex I) have to report regularly on their climate change policies and measures, including issues governed by the Kyoto Protocol (for countries which have ratified it). They must also submit an annual inventory of their greenhouse gas emissions, including data for their base year (1990) and all the years since. Developing countries (Non-Annex I Parties) report in more general terms on their actions both to address climate change and to adapt to its impacts - but less regularly than Annex I Parties do, and their reporting is contingent on their getting funding for the preparation of the reports, particularly in the case of the Least Developed Countries.
- Charts the beginnings of a path to strike a delicate balance. Economic development is particularly vital to the world's poorer countries. Such progress is difficult to achieve even without the complications added by climate change. The Convention takes this into consideration by accepting that the share of greenhouse gas emissions produced by developing nations will grow in the coming years. Nonetheless, in the interests of fulfilling its ultimate goal, it seeks to help such countries limit emissions in ways that will not hinder their economic progress. One such win-win solution was to emerge later, when the Kyoto Protocol to the Convention was conceived.

- Kicks off formal consideration of adaptation to climate change. The Convention acknowledges the vulnerability of all countries to the effects of climate change and calls for special efforts to ease the consequences, especially in developing countries which lack the resources to do so on their own. In the early years of the Convention, adaptation received less attention than mitigation, as Parties wanted more certainty on impacts of and vulnerability to climate change. When IPCC's Third Assessment Report was released, adaptation gained traction, and Parties agreed on a process to address adverse effects and to establish funding arrangements for adaptation. Currently, work on adaptation takes place under different Convention bodies. The Adaptation Committee, which Parties agreed to set up under the Cancun Adaptation Framework as part of the Cancun Agreements, is a major step towards a cohesive, Convention-based approach to adaptation.

Governing and subsidiary bodies: The Convention, the Kyoto Protocol, and the Paris Agreement established three governing bodies: the COP for the Convention, the CMP for the Kyoto Protocol and the CMA for the Paris Agreement. The Bureau of the COP, the CMP and the CMA supports the work of the governing bodies. The UNFCCC secretariat provides organizational support and technical expertise.

Two permanent subsidiary bodies – the SBSTA and the SBI – assist the governing bodies. The COP, the CMP and the CMA furthermore establish other ad hoc subsidiary bodies as deemed necessary to address specific issues.

COP: Conference of the Parties (COP)- The COP is the supreme decision-making body of the Convention. All States that are Parties to the Convention are represented at the COP, at which they review the implementation of the Convention and any other legal instruments that the COP adopts and take decisions necessary to promote the effective implementation of the Convention, including institutional and administrative arrangements.

CMP: Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP)- The Conference of the Parties, the supreme body of the Convention, shall serve as the meeting of the Parties to the Kyoto Protocol. All States that are Parties to the Kyoto Protocol are represented at the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), while States that are not Parties participate as observers. The CMP oversees the implementation of the Kyoto Protocol and takes decisions to promote its effective implementation.

CMA: Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)- The Conference of the Parties, the supreme body of the Convention, shall serve as the meeting of the Parties to the Paris Agreement. All States that are Parties to the Paris Agreement are represented at the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), while States that are not Parties participate as observers. The CMA oversees the implementation of the Paris Agreement and takes decisions to promote its effective implementation.

The many decisions taken by the governing bodies COP, CMP and CMA at their annual sessions also establish a number of institutional arrangements and specialised bodies with limited membership, often referred to as "constituted bodies", to support Parties and the intergovernmental process.

Bureau of the COP, CMP, and CMA: The Bureau supports the work of the governing bodies through the provision of advice and guidance regarding the ongoing work under the Convention, the Kyoto Protocol, and the Paris Agreement, the organization of their sessions and the operation of the secretariat. The Bureau serves during the sessions and also between session. The Bureau consists of 11 officers, the President, seven Vice-Presidents, the Chairs of the SBSTA and the SBI and the Rapporteur, elected from representatives of Parties nominated by each of the five United Nations regional groups and Small Island Developing States.

Secretariat: The UNFCCC secretariat provides organizational support and technical expertise to the UNFCCC negotiations and institutions and facilitates the flow of authoritative information on the implementation of the Convention, the Kyoto Protocol and the Paris Agreement. This includes the development and effective implementation of innovative approaches to mitigate climate change and drive sustainable development.

United Nations institutional linkage: The United Nations serves as Depository for the Convention, the Kyoto Protocol (including its amendments) and the Paris Agreement. The secretariat is institutionally linked to the United Nations without being integrated into any programme and is administered under United Nations rules and regulations.

The Convention, the Kyoto Protocol, and the Paris Agreement establish the institutional arrangements for the climate change intergovernmental process:

A supreme governing body: the COP for the Convention, the CMP for the Kyoto Protocol and the CMA for the Paris Agreement;

A process management body: the Bureau of the COP, the CMP and the CMA;

Subsidiary bodies: two permanent subsidiary bodies – the SBSTA and the SBI – as well as other ad hoc subsidiary bodies established by the COP, the CMP, or the CMA as deemed necessary to address specific issues;

Technical subsidiary bodies with limited membership (referred to in practice as the constituted bodies) established under the Convention, the Kyoto Protocol and the Paris Agreement;

A secretariat; and

Entities entrusted with the operations of the Financial Mechanism (i.e. the Global Environment Facility -GEF- and the Green Climate Fund -GCF-).

2.1 United Nations Climate Change Conference

The supreme governing body of the Convention is the Conference of the Parties (COP), where all signatory States are represented. Each year, the COP meets to review the implementation of the Convention and to take decisions necessary to promote its effective implementation. Today there are 198 Parties to the Convention.

United Nations climate change conferences have grown exponentially in size over the past

two decades—from small working sessions into the largest annual conferences currently held under the auspices of the United Nations—and are now among the largest international meetings in the world. The intergovernmental negotiations have likewise become increasingly complex and involve an ever-increasing number of officials from governments all over the world, at all levels, as well as huge numbers of representatives from civil society and the global news media.

United Nations Climate Change Conferences are global forums for multilateral discussion of climate change matters. They serve as the formal meetings of

- the Conference of the Parties (COP),
- the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) and
- the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA).

They also include sessions of

- the Subsidiary Body for Scientific and Technological Advice (SBSTA) and
- the Subsidiary Body for Implementation (SBI).

The Conference of the Parties (COP, CMP and CMA) serves two main purposes:

- Review the implementation of the UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement
- Adopt decisions to further develop and implement these three instruments (can also include the establishment of another subsidiary body or the adoption of new legal instruments)

The COP is the supreme decision-making body of the Convention. It meets every year. The CMP and the CMA meet annually during the same period as the COP.

The first Conference of the Parties (COP) was held in Berlin, Germany, in 1995. 28th COP was held at the end of 2023 in Dubai, United Arab Emirates. It included the first Global Stocktake, where States assessed the progress made towards the goals set in the Paris Agreement and charted a course of action. COP29 will be held in Baku, Azerbaijan, in November 2024.

The host country of the COP normally rotates among the five United Nations regional groups (Africa, Asia-Pacific, Eastern Europe, Latin American and the Caribbean, and Western European and Others), with regional group members determining which country from their region will make an offer to host the conference.

COPs have created global milestones for the climate movement, setting standards and advancing action, including on reducing carbon emissions, accelerating a global energy transition, and helping countries adapt and build resilience to compounding climate issues. COPs are crucial in bringing governments together while also mobilizing the private sector, civil society, industry and individuals to tackle the climate crisis.

3. United Nations Climate Action

3.1 Financing Climate Action

Finance and Justice:

The original 1992 United Nations Framework Convention on Climate Change set the stage for climate justice by embracing a landmark principle: common but differentiated responsibilities. It requires everyone to act on climate change. But justice demands that those who have contributed more to the problem assume a greater responsibility for solving it. Heavy emitters have to act first and fast in cutting emissions, for example. Justice also depends on wealthier nations providing finance to countries with more limited means so they can keep up with enormous financial burdens as climate change accelerates.

In many respects, climate finance, when it is sufficient and invested in the right ways, is a path to climate justice. How can it happen? The UN Secretary-General's Acceleration Agenda for 2023 outlines six critical actions for governments, businesses and financial leaders.

- i. Make good on the \$100 billion annual promise to developing countries for climate action
Since 2009, global climate talks have agreed on mobilizing \$100 billion a year for developing countries to take climate action, both to adapt to climate change and cut emissions. The money is supposed to come from wealthier countries, through bilateral, regional and multilateral channels, as well private funds generated by public interventions. Funds can flow through a variety of mechanisms, such as grants, loans and even insurance.

So far, the \$100 billion goal has not been reached, however, and the distribution of funds has not been equitable. In 2020, based on the latest OECD data, developed countries provided \$83.3 billion. Only 8 percent of the total went to low-income countries and about a quarter to Africa, even though both are highly vulnerable to climate change and home to the majority of people in poverty. Loans made up the largest funding category, mainly going to middle-income countries. This increases investment costs even as many developing countries are struggling with heavy public debt burdens and face impossible choices, such as between funding climate adaptation and improving essential public services.

The \$100 billion commitment is important because every dollar counts in combatting climate change. Realizing this commitment is also a critical affirmation that countries can trust each other to join forces in achieving common goals. It signifies that the international community is committed to justice and to not leaving anyone behind – but only if it is achieved now, in full, and in line with principles of fairness and equity.

- ii. Double finance to help countries adapt to climate impacts

While every country will need to work towards net-zero emissions, each country and community also must adapt to climate change. Adaptation is the foremost priority in countries with lower emissions and acute vulnerability to climate fallout, as is the case for many small island developing States and least developed countries. Building storm-resistant housing, planting drought-tolerant crops, installing reliable water supplies and investing in social safety nets are among many adaptation essentials.

With half the world's population now living in the climate "danger zone", where people are 15 times more likely to die from climate impacts, the Secretary-General has called for doubling finance for adaptation. It must be equitably distributed in ways that do not impose additional constraints. Concerningly, over 60 per cent of adaptation finance involves loans instead of grants, a share that has been rising. Nearly all of it comes from the public sector,

with a heavy reliance on international sources in many developing regions.

Climate adaptation is becoming more expensive as the magnitude of climate change sets in. Countries may need to spend up to \$300 billion a year by 2030 and \$500 billion by 2050, according to the United Nations Environment Programme. Yet these estimated costs are 5 to 10 times greater than current funding flows. The Climate Policy Initiative found that the world today spends under \$50 billion on adaptation a year, less than 10 per cent of climate investments overall. This disparity is less acute but still evident in the \$100 billion commitment. In 2020, around \$29 billion went to adaptation compared to nearly \$49 billion to mitigating greenhouse gas emissions, according to the OECD.

iii. Reform the World Bank and other development banks to make them fit-for-purpose

The current system of lending money to countries for climate and sustainable development is broken. The Secretary-General has referred to the international financial system as “short-sighted, crisis-prone, and bear(ing) no relation to the economic reality of today”, noting that it was created before climate change even existed.

Injustices in the international financial system have profound impacts. Even if many countries want to invest in climate action that benefits the world as a whole, many cannot afford to do so. Currently, 52 developing countries are suffering severe debt problems. They are home to 40 per cent of all people living in extreme poverty; half of them are among the world’s most climate-vulnerable nations.

High financing costs largely drive unsustainable national debt burdens. Even before the recent surge in interest rates, least developed countries borrowing from international capital markets faced rates of up to 8 per cent compared to 1 per cent in many wealthier countries. When it comes to climate finance, this can translate into heavy costs beyond what climate action already requires. In 2019–2020, over 60 per cent of climate finance entailed borrowing funds, or around \$384 billion. Only \$47 billion came with low cost or concessional interest rates. No-cost grant finance was only \$36 billion.

The Secretary-General has called for reforming the international financial system to make climate and development finance more affordable and adequate, and positioned to combat the scale of the climate crisis. He has urged an annual SDG Stimulus that would boost financing for sustainable development by at least \$500 billion per year. The Secretary-General and the Prime Minister of Barbados have joined forces under the Bridgetown Initiative, which advocates channeling billions from the International Monetary Fund, multilateral development banks and the SDG Stimulus Plan to developing nations, and mobilizing over \$1.5 trillion annually in private-sector green investments.

Given the scale of climate finance required, current injustices are not only wrong but a serious obstacle to progress that will determine the future of the planet. Public and private climate finance almost doubled from 2011 to 2020, and may have reached up to \$940 billion in 2021, with three quarters raised domestically. Most is concentrated in East Asia and the Pacific, North America and Western Europe, however. Avoiding the worst impacts of climate change could require \$4.3 trillion a year by 2030; costs will only escalate the more the Earth continues to warm.

iv. Replenish the Green Climate Fund

The Green Climate Fund (GCF) is the world’s largest climate fund, created by the Paris Agreement to channel finance to developing countries to fight climate change. Half its

resources go to climate mitigation and the other half to adaptation. The fund supports climate justice in part through the lower cost of adaptation finance, which must be provided through grants or the equivalent. Further, half of adaptation resources must go to the most climate-vulnerable countries, including small island developing States, the least developed countries and African States.

In its first round of resource mobilization, from 2020 to 2023, the GCF raised \$12.8 billion to improve the resilience of a billion people in 128 countries. A second round is underway to fund the GCF from 2024 to 2027, a period of urgent action for climate change and the Sustainable Development Goals.

v. Operationalize the new loss and damage fund

In 2022, global climate talks agreed to create a Loss and Damage Fund. While the details are still being hashed out, such as to define where and how the money should be distributed, the UN Secretary-General has described action on loss and damage a matter of international solidarity and climate justice and urged establishing the fund without delay.

Funds for adaptation help prepare for and lessen climate impacts. Yet loss and damage are inevitable, and disproportionately and unfairly experienced by vulnerable developing countries. Prolonged heat waves, desertification, ocean acidification and extreme events, such as bushfires and crop failures, are already happening and will become worse over time, destroying infrastructure and sapping struggling economies. Some countries will lose large portions of land to sea level rise.

Finance specifically dedicated to loss and damage helps pay for climate-related impacts that happen even if countries adapt and prepare well in advance. It can draw on various financial tools. The Secretary-General has proposed taxes on windfall fossil fuel profits as one option. Debt swaps, where existing debt is forgiven so that funds can be used for climate responses, offer another alternative.

Additional elements may comprise social protection systems and insurance to provide safety nets during a crisis. Many countries are developing these but they can be further supported, including through the Global Accelerator on Jobs and Social Protection for Just Transitions. It aims to extend social protection to the 4 billion people who currently go without it.

vi. Protect all people from climate disasters with early warning systems by 2027

When disasters loom, early warning systems save lives. Yet only half of countries have them. As hazardous weather and climate events intensify, the Secretary-General has launched a drive to cover everyone within the next five years at the latest. This is more feasible than ever since 75 percent of people have a mobile phone and 95 percent can access the Internet. It is also more needed. Disasters have increased five-fold over the last 50 years, causing an average loss of 115 lives and \$202 million in losses every day.

Early warning systems not only uphold human rights to life and safety but are also highly cost-effective. The Global Commission on Adaptation estimated that a 24-hour notice of an impending disaster can reduce damage by 30 percent. Investing \$800 million in such systems in developing countries would prevent losses of \$3 to \$16 billion annually.

With that in mind, the Early Warnings for All initiative advocates spending \$3.1 billion from 2023 to 2027 to achieve universal coverage. That's equivalent to just 50 cents per person a year. To marshal rapid action, the United Nations is partnering with the Red Cross, civil society, tech companies, donor governments, development banks and the insurance sector.

3.2 International Cooperation

Climate Ambition Summit: By demonstrating that tangible and ambitious action to credibly cut emissions and deliver climate justice was possible and practical, the Summit showcased a way forward: the alignment of sectoral, local, national and international plans and policies with credible and science-backed targets to accelerate decarbonization, advance climate justice and fairness, with unprecedented levels of coordination and cooperation, and a renewed focus on credibility and accountability.

The design and outcomes of the Summit will be delivered on three distinct but interrelated acceleration tracks – ambition, credibility and implementation.

Ambition

Government leaders (especially major emitters) will be expected to present updated pre-2030 Nationally Determined Contributions (as agreed in Glasgow); updated net-zero targets; energy transition plans with commitments to no new coal, oil and gas; fossil fuel phase-out plans; more ambitious renewable-energy targets; Green Climate Fund pledges; and economy-wide plans on adaptation and resilience. Finally, all main emitters and notably all G20 governments will be asked to commit to presenting, by 2025, more ambitious economy-wide Nationally Determined Contributions featuring absolute emissions cuts and covering all gases.

Credibility

Leaders of businesses, cities, regions and financial institutions will be expected to present transition plans aligned with the UN-backed credibility standard presented in the “Integrity Matters” report commissioned by the UN Secretary-General. This standard for voluntary net-zero pledges is the only existing one fully aligned with limiting global warming to 1.5°C degrees. It calls for 2025 and 2030 targets, coverage of scope 3 emissions, just transition plans to stop and phase out fossil fuels, actual emissions cuts without using offsets, and a commitment to publicly advocate for science-based climate action.

Implementation

Leaders of governments, international and regional organizations and financial institutions, the private sector and civil society will present existing or emerging implementation partnerships addressing challenges and opportunities related to accelerating the decarbonization of high-emitting sectors (energy, shipping, aviation, steel, cement) or on delivering climate justice (reform of the international financial system, early warning systems, adaptation, loss and damage).

Sustainable Development Goals:

The Sustainable Development Goals are a call for action by all countries – poor, rich and middle-income – to promote prosperity while protecting the planet. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection and job

opportunities, while tackling climate change and environmental protection. Of the 17 goals, number 13 calls for urgent action to combat climate change and its impacts. But all of the goals influence climate change – and vice versa. We will make little progress on climate action without accelerating achievement of Goal 7 on affordable and clean energy, for instance, or Goal 12 on responsible consumption and production. Climate solutions can support the goals such as through a just transition to renewable energy centred on providing decent work, the focus of Goal 8, or through developing resilient infrastructure under Goal 9.

Initiatives for Action

Secretary-General's initiatives: Panel on Critical Energy Transition Minerals; Credibility standard for net-zero pledges; Early warnings for all

Coalition initiatives:

Energy- Accelerating Renewable Energy Transition in SIDS: Thirty-six small island developing States and their partners have come together to share strategies and galvanize momentum in the transition to renewable and resilient energy systems.

Climate Action for Jobs: This initiative has developed a roadmap and regional strategies for climate action that puts people's jobs and well-being at the heart of the transition to a green economy.

Cool Coalition: See how the world is coming together to deliver efficient, climate-friendly cooling for all, including through enhanced national climate plans. The coalition highlights promising innovations such as "cooling paper" that keeps temperatures down in buildings.

The Energy Efficiency Alliance: Three Percent Club: A coalition of government, corporate and non-governmental leaders, the alliance champions accelerated energy efficiency, helping individual countries prepare roadmaps to boost efficiency. The Three Percent Club sets a target of an annual 3 per cent improvement in energy efficiency.

Powering Past Coal Alliance: Countries, investors, utilities and cities are among those working on early retirement – from coal as an energy source. The alliance helps drive new political and industry consensus on phasing out finance for coal and the use of coal as a power source.

Industry and Transport- Action towards Climate-Friendly Transport: Over 100 organizations have forged the largest coalition ever dedicated to shifting all forms of transport to zero emissions. It researches issues like rural access and making the economics of decarbonization work. An online course helps urban leaders develop sustainable urban mobility solutions.

Decarbonizing Shipping: Getting to Zero Coalition: A powerful alliance of more than 150 maritime, energy, infrastructure and finance companies, the coalition has a moonshot ambition: commercially viable, deep sea zero-emission vessels operating by 2030. The Sea Cargo Charter defines benchmarks to decarbonize the transport of bulk shipping containers. Under the Poseidon Principles, 15 banks have disclosed how well shipping industry loan portfolios align with climate goals.

Leadership Group for Industry Transition: Aimed at net-zero carbon emissions from industry by 2050, the initiative has established industry groups and developed road maps for heavy industries where carbon emissions are difficult to abate. A transition tracker profiles industries in various countries.

Business and Finance- Business Ambition for 1.5°C: This coalition of business and industry leaders calls on companies to set ambitious and science-based emissions reduction targets, aiming for net zero in line with a 1.5°C future. Over 700 companies with more than \$13 trillion in market capitalization have signed on so far.

Coalition of Finance Ministers for Climate Action: Fiscal and economic policymakers from over 60 countries generating around 40 per cent of global emissions are calling for urgent climate action and investment, and a just transition built on the creation of millions of new jobs. Six Helsinki Principles guide measures such as effective carbon pricing and the integration of climate change into macroeconomic and fiscal policy, among other issues.

Net-Zero Asset Owner Alliance: An international group of over 40 institutional investors with over \$6.6 trillion in assets has made a bold commitment to transition investment portfolios to net-zero emissions by 2050. Members aim to align portfolios with a global temperature rise of no more than 1.5 degrees Celsius. The alliance has set targets for as soon as 2025 and called for ambitious national climate plans.

Resilience and Adaptation- A Call for Action: Raising Ambition for Climate Adaptation and Resilience: The call sets a higher bar for ambition on adaptation and resilience, with endorsement by 130 countries and 86 organizations. It urges reaching the vulnerable, rapidly scaling up finance and integrating climate risk into imagining our future. [Learn more.](#)

Coalition for Climate Resilient Investment: This initiative mobilizes the global private financial industry, in partnership with key private and public institutions, to integrate climate risks in investment decision-making. It now has 65 members with nearly \$10 trillion in assets and has helped develop tools for modelling risk-informed cash flow and infrastructure priorities.

Coalition for Disaster-Resilient Infrastructure: Governments, UN organizations, multilateral banks, businesses and knowledge institutions are collaborating to build resilience to climate and disaster risks into infrastructure systems. A fellowship programme promotes research and innovation.

InsuResilience Group Partnership Vision 2025: The partnership helps strengthen the resilience of developing countries and protect the lives and livelihoods of poor and vulnerable people from disasters. In 2020, 218 projects in 101 countries provided financial protection against climate-related risks for more than 130 million people. It also tracks noteworthy gender-smart climate solutions through a centre of excellence.

LDC Initiative for Effective Adaptation and Resilience: The group works for a climate-resilient future in the least developed countries. It has made strides in devising standards for climate adaptation in local communities along with a financing mechanism.

Risk-Informed Early Action Partnership: A coalition from the climate, humanitarian and development communities leverages knowledge, the exchange of solutions and new partnerships to reduce disaster risks, aiming to make 1 billion people safer by 2025.

Nature-based Solutions- Campaign for Nature: This growing coalition of more than 100 conservation organizations calls on policymakers to commit to a science-driven, ambitious new deal for nature. It hinges on protecting at least 30 per cent of the planet by 2030, backed by sufficient financial resources and the full realization of indigenous leadership and rights.

Ocean Risk and Resilience Action Alliance: ORRAA connects governments, financial institutions, the insurance industry, environmental organizations and actors from the Global South to build resilience to ocean risk. It pioneers finance and insurance products aimed at incentivizing \$500 million in investment in nature-based solutions by 2030.

Urban Planning- Leadership for Urban Climate Investment: A coalition of governments, financial institutions, climate funds, city networks and think tanks has developed the LUCI framework to help 2,000 cities prepare and finance climate projects, realizing 20 per cent of this target so far. A City Climate Finance Gap Fund supports the process, drawing on collaboration with multilateral development banks and bilateral donors.

Youth Advisory Group on Climate Change: The Secretary-General's Youth Advisory Group on Climate Change provides him with practical and outcome-focused advice, diverse youth perspectives and concrete recommendations, with a clear focus on accelerating the implementation of his climate action agenda.

Convened under the auspices of the United Nations first-ever system-wide youth strategy, Youth2030, and the Our Common Agenda, the Youth Advisory Group serves as a mechanism for the Secretary-General to hear directly from young people, as the organization works to accelerate global climate action, and drive forward all 17 Sustainable Development Goals.

4. United Nations Development Programme (UNDP)

4.1 Climate Promise (Helping countries with their climate goals)

UNDP's Climate Promise is the world's largest offer of support to countries on national climate pledges under the Paris Agreement. These pledges, or Nationally Determined Contributions (NDCs), are crucial steppingstones towards net-zero emissions and meeting the Paris goals. The initiative supports over 120 countries, in collaboration with over 35 partners and is a major contribution to the NDC Partnership.

UNDP is scaling up support to solidify countries' ambition and help turn their targets into action. As politically-backed blueprints for investments in key engines of sustainable development, NDCs offer opportunities to unlock potentials for a just transition. The Climate Promise leverages this engagement and political buy-in on NDCs to support countries to mobilize both public and private investments to realize NDC targets while also simultaneously achieving SDGs.

Climate Promise support is provided to countries along three mutually supportive pillars:

- **Scale and Speed:** Countries have inclusive and gender-responsive governance and financing mechanisms to enable achievement and tracking of NDC targets across sectors
- **Amplifying Ambition:** NDCs effectively contribute to long-term pathways consistent with the Paris Agreement and the SDGs.
- **Lasting Inclusivity:** Actors collectively are empowered to drive climate action and ensure whole-of-society engagement.

To complement and support country engagement, a global component provides state of the art technical expertise in key cross-cutting area – including just transition, circular economy, transparency net-zero pathways, gender mainstreaming, urban issues. Real-time intelligence tracks current NDC data trends, while a strong communications arm shares country solutions to inform ongoing UNFCCC processes and negotiations, enhance visibility and send a strong demonstration of multilateralism.

Partnerships remain at the heart of this support to bring strong partners together. Long-standing partners like the EU, Germany, Sweden, Spain and Italy continue to support the Climate Promise, while new partners like Japan, the UK, Belgium, Iceland and Portugal have joined to further scale up support to countries to respond to the increasing demand. The Climate Promise is fully aligned with the NDC Partnership's 2021-2025 Program of Work, with UNDP being one of the Partnership's largest implementing partners.

UNDP provides support to help countries take bold action to reduce their emissions, increase their resilience to climate impacts and support sustainable development priorities.

This support covers a range of key technical areas, including enhancing political will and ownership across society, strengthening targets and aligning with key national policies, assessing costs and investment opportunities, as well as setting up the systems for monitoring and reporting on progress.

Areas of Work:

- Adaptation & Resilience
- Carbon Markets
- Circle Economy
- Climate Finance
- Climate Security
- Energy
- Forest, Land and Nature
- Inclusion
- Just Transition
- Loss and Damage
- Net Zero Pathways
- Transparency
- Urban Issues

UNDP has been supporting over 120 countries and territories with revising and enhancing their NDCs – covering 80% of developing countries globally and becoming the world's largest offer of support on NDC enhancement.

4.2 UNTAPPED-

For centuries, societies have used knowledge, information and tools to better manage crops, combat disease and anticipate weather patterns. Today, communities are combining this ancestral knowledge with new sources of data and technology to better understand, analyze

and act in the face of the climate crisis.

This new research reviews the state of play including farmers who are pooling knowledge on climate-resilient crops or tools that allow local communities to capture data on changes to weather, climate, or wildlife. As they face the most severe impacts of the climate crisis, communities in the Global South are working together -- often with the aid of technology - to mobilize a wider range of information, ideas and insights, that is allowing them to better adapt to; and mitigate the effects of an intensifying climate emergency.

Better leveraging the immense potential of such collective intelligence is a central aim of the United Nations Development Programme's (UNDP) Accelerator Labs Network. Experimenting and tapping into local innovations to create actionable insights in 115 countries, it is now the world's largest and fastest learning network on sustainable development challenges. Together with Nesta's Centre for Collective Intelligence Design, we use collective intelligence to pinpoint critical development solutions led by local communities. That includes everything from open innovation challenges to identify the world's best people-powered clean energy solutions to using crowdmapping and community knowledge to scale-up successful local adaptation to drought.

UNTAPPED is the first research of its kind on how collective intelligence can advance climate action and the Sustainable Development Goals by generating more real-time, localized climate data and by mobilizing more people and diversifying perspectives. Responding to the Intergovernmental Panel on Climate Change's (IPCC) call to include all sources of expertise and knowledge to drive decisive climate action, it showcases over 100 unique, climate initiatives across 45 countries that are powered by collective intelligence. Notably, it underlines the pressing need for increased investment in community-driven climate action.

The sharing of intelligence -- spreading ideas, solutions, and information -- has always been central to humanity's ability to solve problems quickly, at scale. That includes women and men in developing countries who are now on the frontlines of the global climate response, sharing their unique knowledge and innovations. At the same time, the continued power of the United Nations to bring countries together, new financial mechanisms, and extraordinary technology like artificial intelligence provide well-founded optimism for our ability to tackle our world's greatest challenge in the climate emergency. Human ingenuity – and finding ways to better harness our world's collective brainpower -- represent our global community's greatest untapped assets in our quest to change climate futures across the globe.

- Collective Intelligence adds value to climate adaptation and mitigation efforts
- Collective intelligence can close important gaps in climate action-collective intelligence advances climate action by bridging: The Data Gap; The Doing Gap; The Diversity Gap; The Distance Gap; The Decision-Making Gap.
- Collective intelligence for climate decision making is the next frontier for innovation
- Making the most of collective intelligence for the climate crisis

4.3 Climate change adaptation

Climate change could drive an additional 100 million people into poverty by 2030. Countries have increasingly included adaptation priorities in their NDCs pointing to issues of water and food security, safeguarding economic assets from extreme climate events and disasters, and protection and regeneration of natural capital.

Building on the experiences and lessons from a portfolio of initiatives in over 137 countries, UNDP advances a 'whole-of-society' approach to accelerate adaptation and continues to support countries to mobilize public and private finance to implement their adaptation priorities. UNDP assists government partners to scale up the integration of climate change adaptation into policy, planning, and investments at both national and local levels through the support to the National Adaptation Planning (NAP) process and the NDCs. UNDP supports climate change adaptation action in the context of agriculture and food security, water resources, coastal zone management, ecosystems protection, public health, resilient infrastructure, urban resilience, livelihoods, and climate information/early warnings.

UNDP's climate change adaptation works across seven thematic areas to support vulnerable communities in building resilience to climate change.

- Mainstreaming Adaptation
- Livelihoods
- Ecosystem-Based Adaptation
- Food Security and Agriculture
- Water and Coastal Resilience
- Urban Resilience
- Climate Information and Early Warning Systems

5. United Nations Environment Programme (UNEP)

5.1 Climate Action

UNEP provides evidence-based data to inform policy decisions, collaborates with sectors for low-carbon transitions, provides climate finance mechanisms and aids countries in adaptation and mitigation efforts.

Unless greenhouse gas emissions fall dramatically, warming could pass 2.9°C this century, which would have catastrophic consequences for life on this planet. UNEP takes a four-pronged approach to addressing the climate crisis and reducing greenhouse gas emissions in line with the Paris Agreement.

- The organization provides cutting-edge research to support science-based decision-making on climate change
- The organization works across sectors to support the transition to a low-carbon, climate-resilient future
- The organization ensures a just transition to a carbon-neutral world by empowering communities to adapt to changing climatic conditions
- The organization develops sustainable mechanisms to unlock financing to help countries both mitigate and adapt to climate change

Adaptation and resilience

Reducing carbon emissions is no longer enough to halt the impacts of climate change. Many countries are realizing it's time to start adapting to the climate crisis. With that recognition, UNEP provides technical support to governments and helps them access finance to build climate resilience.

With climate adaptation projects all over the world, UNEP promotes a wide range of solutions, including nature-based solutions, the development of National Adaptation Plans, early warning climate services, climate-resilient livelihood training and much more.

UNEP has assisted over 70 projects on climate change adaptation in over 50 countries. Combined, the projects are aiming to benefit around 3.5 million people, restore 241,000 hectares of land, improve climate adaptation knowledge of 323,000 people and 131 institutions, and build over 7,800 water harvesting structures and 82 weather stations.

Mitigation

UNEP takes a multifaceted approach towards climate change mitigation in its efforts to help countries move towards a low-carbon and resilient future.

UNEP promotes cost-effective and available solutions to reduce emissions from the energy systems, industry, buildings, transport and AFOLU sectors to help close the emissions gap.

Mitigation can mean using new technologies and renewable energies, making older equipment more energy efficient, or changing consumer behavior. It can be as complex as a plan for a new city, or as simple as improving a cook stove design. Efforts around the world range from halting and reversing deforestation, high-tech subway systems to cycle paths.

Loss and Damage

Loss and Damage refers to the negative effects of climate change that occur despite mitigation and adaptation efforts.

In simpler terms, while mitigation addresses the causes of climate change (like reducing greenhouse gas emissions) and adaptation addresses minimizing its impacts (like building sea walls to prevent flooding), Loss and Damage is concerned with the unavoidable and irreversible impacts of climate change.

Climate Finance

Unlocking real economy investments for climate action, mitigation and adaptation included, is critical.

UNEP works towards changing how investment decisions are made, engages with the finance industry and encourages the flow of public and private investment towards low-carbon and resilient development.

Climate Transparency

By providing clear and robust data and information on climate action, transparency also serves to build trust, credibility and accountability among all those involved.

Aiming to strengthen the global response to the threat of climate change, Parties adopted the Paris Agreement in 2015, and through it established an Enhanced Transparency

Framework (ETF). Parties under the Enhanced Transparency Framework are required to submit their first Biennial Transparency Report (BTR1) and national inventory report, if submitted as a stand-alone report, in accordance with the MPGs, by 31 December 2024 at the latest. UNEP supports countries in adopting the Enhanced Transparency Framework by providing technical and financial support for reporting and support for high-quality, credible, open climate and environmental data, information, statistics, as well as scientific assessments and expertise. UNEP also focuses on building and developing national capacity for climate information services and impact-based multi-hazard early warning systems in developing countries, particularly in LDCs and SIDS.

NDCs

The Paris Agreement mandates countries to update NDCs every 5 years. The next cycle calls for higher ambition, including economy-wide emission cuts to meet the 1.5°C goal.

According to the EGR 2023, countries are not on track to achieve the Paris Agreement goals and current NDCs put the world on track for a global temperature rise of 2.5-2.9°C. Meanwhile, the AGR 2023 estimates that costs of implementing adaptation needs for developing countries could amount to around \$387 billion per year from 2021-2030, far outweighing current adaptation finance.

In 2025, countries will be required to submit new NDCs. They are encouraged to have an implementation timeframe until 2035 and need to respond to the outcome of the GST and outline ambitious, transformational and country-driven adaptation actions.

NDCs 3.0 must achieve a 29% and 42% reduction in GHG emissions by 2035 compared to current projections to align with the 2°C and 1.5°C pathways.

UNEP's offer includes analytical tools and robust baselines on GHG emissions potentials and climate risks assessments, sectoral support packages, and NDC design and implementation through projects like the NDC Action Project.

UNEP Sectoral Solutions

The UN Environment Programme (UNEP) has decades of experience addressing the climate crisis. UNEP helped establish the Intergovernmental Panel on Climate Change in the 1980s and has concentrated on efforts to reduce emissions of greenhouse gases, mainly by promoting renewable energy and improved energy efficiency.

UNEP stands at the core of the action in the fight against the climate crisis. The organization's work cuts across the fields of science, policy, technology and finance. UNEP works with countries to pursue low-emission development and boost their capacity to adapt and be resilient to climate heating through nature-based solutions.

UNEP is helping implement the Paris Agreement by supporting countries in developing national plans to cut greenhouse gas emissions and promoting new finance models to accelerate the transition to a green economy.

UNEP is also working with governments, civil society and the private sector to improve air quality and reduce emissions of short-lived climate pollutants. The organization works with

stakeholders to protect and restore natural ecosystems such as forests, coral reefs and peatlands while combating the sources of degradation.

UNEP calls for greater ambition from countries and recognition of the benefits of integrating natural systems into concrete climate action.

The organization is helping countries move towards climate resilience and low-emissions strategies through:

- Adaptation and mitigation techniques
- The UN-REDD Programme
- Climate finance
- Early warning and disaster preparedness systems

Partnerships, networks, centres & programmes collaborating with UNEP

Partnerships

- Partnership for Action on Green Economy (PAGE)
- Climate and Clean Air Coalition
- Global Alliance for Buildings and Construction
- Green Growth Knowledge Platform

Networks

- Climate Technology Centre and Network (CTCN)
- Cool Coalition
- One Planet Network
- Global Adaptation Network

Centres and Programmes

- World Adaptation Science Programme
- Global Center on Adaptation
- UNEP Copenhagen Climate Centre
- UrbanShift
- UN-REDD

6. United Nations Office for Disaster Risk Reduction (UNDRR)

The UNDRR helps decision makers across the globe better understand and act on risk.

The UNDRR coordinates and supports efforts within the UN system in the area of disaster preparedness and mitigation and advocates for appropriate measures to adapt to anticipated risks due to climate change.

Climate change is undermining the ability to achieve the 2030 Agenda for Sustainable Development, including the Sendai Framework for Disaster Risk Reduction. It is rewriting the global resource map for assets such as water, arable land and energy while driving migration,

displacement, and instability. Transitioning to a sustainable net-zero carbon world requires rapid systems-level changes, including in key sectors such as energy, food, and health. Collective action, political leadership, and financing are needed to keep the global average temperature within the 1.5 degrees safer limit outlined in the Paris Agreement. However, prudent risk management requires preparation for a range of negative outcomes associated with varying degrees of warming and to effectively manage unexpected concurrent threats, such as the current COVID-19 crisis.

Challenges

- **Current mitigation trajectories are leading to unmanageable disaster risk**
Climate change increases the frequency and intensity of hazards, the exposure and vulnerability of communities and individuals, and the stress on water and food security. On current trends, the world is potentially on track for a temperature increase of 3 degrees or higher. Current mitigation efforts are insufficient. A continued increase in carbon emissions will result in irreversible changes including the probability of breaching thresholds for ‘tipping point’ impacts, such as ecosystem collapse.
- **Investment in risk-informed adaptation is lagging**
Risk-blind planning can and in some cases already has created new risks and resulted in maladaptation. A radical scale-up in adaptation measures and a comprehensive approach to risk analysis and management covering a full range of hazards is required. Current risk analytics are inadequate to enable effective preventive and anticipatory action to reduce the humanitarian impacts of climate related disasters.
- **Action to manage long-term impacts and residual risks is inadequate**
Climate crisis impacts such as sea-level rise or ocean acidification are growing global challenges that have not been adequately addressed in current development planning. This failure to account for risk has hindered planning and consequently under-estimated the cost benefits of rapid climate action. The continuing increase in the number of extreme weather events and the likely impact on population displacement, loss of livelihoods, access to health and other basic services will be overwhelming.
- **Investment and financial systems are not fit for purpose**
Financial systems need to better quantify the extent to which their assets will retain their value in this era of climate change. Undervaluing climate risk is a particular concern for longer-term investors and sectors including insurance, pension funds, infrastructure, and agriculture.
- **Climate change and disasters are reinforcing inequalities**
Climate change, vulnerability, and inequality interact in a vicious cycle: disadvantaged groups suffer disproportionately from the adverse effects of climate change, which diminishes their ability to reduce their exposure, avert potential effects, cope and recover from climate and disaster impacts, resulting in even greater inequalities.

Policy recommendations

- Galvanize political leadership and momentum

Ensuring the world is safe in the climate future is the greatest public good governments can deliver. Stepped up action by the G20 to reduce greenhouse gas emissions to meet the 1.5-degree target must be a global priority. Preventing and reducing disaster risk needs to be central to these efforts.

Government policies, plans, and programmes must be designed to operate under a range of risk scenarios. Governments need to upgrade climate and disaster risk analytics to better account for systemic risks, knock-on impacts, and the medium to long term effects of various climate scenarios. Cost-benefit analyses must integrate the real projected costs of future disaster impacts. Most investments in climate change adaptation and disaster risk reduction make good business sense once the costs of externalities are accounted for.

The disaster risk reduction community has decades of experience in managing extreme events and reducing risk related to potential climate-related disasters. Their experience needs to be harnessed for planning and the scaling-up of adaptation actions.

- Scale up comprehensive disaster and climate risk management

Comprehensive disaster and climate risk management is central to development planning, including in energy, industrial, land, ecological and urban systems. Risk-centred approaches should be integrated into National Adaptation Plans (NAPs), and adaptation and climate information into national and local disaster risk reduction strategies.

NAPs, Nationally Determined Contributions (NDCs), national and local development plans, spatial and sectoral planning processes need to apply comprehensive risk management principles and consider how trade-offs and co-benefits will influence potential systemic risks such as pandemics and displacement.

Improved metrics on adaptation and risk management are urgently needed to measure the degree to which the climate emergency is corroding resilience and achievement of the SDGs and Sendai Framework targets. Better prevention and risk management minimizes adverse effects and creates opportunities to transform systems and societies. Disaster risk management and adaptation plans should be based on analysis of both historical disaster trends and future climate and disaster risk projections.

- Empower communities, mobilize society to ensure no one is left behind

Gendered roles, responsibilities, access to resources and decision-making power mean that women and men contribute differently to the causes of climate change. They are affected differently by it and react differently to its impacts. Gender has a powerful influence on people's experience of climate change and disasters, and gender equality and women's empowerment are powerful levers for change. Integrating a gender analysis in the development and implementation of climate change and disaster risk management policies, strategies and programmes is essential to prevent the expansion of inequalities driven by climate change.

There is a need for a new "social contract" on climate change that sets out responsibilities and what can be expected from governments, cities, the private sector, and other actors.

- Invest in sustainable, resilient infrastructure systems

Infrastructure assets should be prioritized, planned, designed, built, and operated to account for climate changes and potential disasters. Services provided through infrastructure systems (energy, water, health, etc.) should also account for potential climate and disaster-related disruptions.

Massive investments are needed to build low-carbon infrastructure and for retrofitting. Comprehensive risk assessments should inform these investments to ensure that they are resilient and do not create or exacerbate future risks.

Scaling up nature-based solutions, achieving land degradation neutrality, restoring the oceans, and halting biodiversity loss and prioritizing sustainable ecosystem management will be critical for success.

- Promote innovative investments and financing mechanisms

The transformations required to meet the 1.5-degree target will have wide impacts across economies and societies. Governments and non-State stakeholders should fulfil pledges for an equitable division of climate finance to support mitigation and risk-informed adaptation action.

Risk tagging and tracking of budgetary and expenditure flows enables a clearer understanding of how much countries ought to spend, which areas are being prioritised, and better measurement of risk reduction and adaptation approaches.

Investing in better understanding and quantifying of risk helps price it, which in turn informs financing and investment decisions. This should be complemented by improved public and private financial regulation and risk disclosure mechanisms to better account for climate and disaster risk.

Post COVID-19 stimulus packages should catalyze greener economic growth, eliminate fossil fuel subsidies, avoid environmental deregulation, and address key disaster risk drivers.

Social protection acts as an effective vehicle to implement a range of adaptation and disaster risk reduction programmes. Such initiatives should be shock-responsive and universal to reduce vulnerabilities, provide income protection, and act as a mechanism for ex-ante relief assistance.

Financing instruments and layered financing mechanisms should be scaled-up to enhance preventive and anticipatory actions.

Partnership with the private sector should be leveraged to co-develop innovative financial instruments, including to manage residual risk e.g., through bonds, insurance products and other contingent financing mechanisms. Incentives and regulatory mechanisms should catalyze action and accelerate investment pathways as part of a transition to low carbon, resilient economies.

- Ensure behavioral change through science, evidence and effective communication

Scientific knowledge and evidence should be strengthened to better inform plans and policies while communication with and within communities should be enhanced to act as an effective bridge between knowledge and behaviour. Communities should have easy access to information on climate risks, associated impacts, and the cost of inaction, to better appreciate the impact of their actions.

All risk information, including early warning, should be impact-based for better

understanding, and triggering action.

7. World Meteorological Organization (WMO)

WMO Overview

WMO is the United Nations system's authoritative voice on the state and behavior of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces and the resulting distribution of water resources.

As weather, climate and the water cycle know no national boundaries, international cooperation at a global scale is essential for the development of meteorology and operational hydrology as well as to reap the benefits from their application. WMO provides the framework for such international cooperation for its 193 Member States and Territories.

WMO regulates and facilitates free and unrestricted exchange of data and information, products, and services in real- or near-real time. This is critical for applications relating to the safety and security of society, social and economic welfare, and the protection of the environment. WMO standards and policies contribute to policy formulation in these areas at national and regional levels.

The Organization plays a leading role in international efforts to monitor and protect the climate and the environment. In collaboration with other UN agencies and NMHSs, WMO supports the implementation of UNFCCC and a number of environmental conventions and is instrumental in providing advice and assessments to governments on related matters. These activities contribute towards ensuring the sustainable development and well-being of nations.

WMO and the United Nations Environment Programme jointly set up the Intergovernmental Panel on Climate Change (IPCC) in 1988 to provide governments at all levels with scientific information that they can use to develop climate policies. IPCC reports are also a key input into international climate change negotiations. The IPCC is a body made up of governments that are members of the United Nations or WMO.

WMO also works in partnership and collaboration with Members and organizations worldwide to coordinate studies of the climate, its variations and extremes and impact on human activities, as well as coordinating development and use of climate services as an essential component of climate action.

Together, we work to understand the influence of climate change on human health, safety, and welfare, so that countries and communities around the world can make evidence-based decisions to mitigate and adapt to its impacts.

WMO's response

WMO supports its Members to understand the Earth's climate on global to local scales by developing technical standards for observing instruments and ensuring that the collected data are quality controlled and comparable, by monitoring the current climate and by ensuring that skillful predictions of the climate over the coming weeks, months, seasons and

years, as well as climate change projections over the coming decades to longer periods, are available and freely accessible by the Members.

All these cascading sources of information are essential for climate-smart decision-making at all levels to deal with climate risks. Climate information is also essential for monitoring the success of mitigation efforts such as reduction of greenhouse gas emissions that contribute to climate change, as well as for promoting efforts to increase energy efficiency, to transition to a carbon-neutral economy and effectively pursue Sustainable Development Goals (SDGs).

WMO helps different sectors make climate-smart decisions by collaborating with our Members to routinely issue global climate predictions on seasonal to decadal timescales, and producing bulletin such as the El Niño/La Niña Update, and the Global Seasonal Climate Update.

WMO publishes the Global and Regional State of the Climate reports, the State of Climate Services reports, is involved in leadership capacity in the Global Framework for Climate Services, World Climate Research Programme, and provides Infrastructure Department activities, and Member Services activities to nations around the world.

Related activities

- Global Atmosphere Watch Programme (GAW)

Global Atmosphere Watch (GAW) Programme aims to create a unified understanding of atmospheric composition (including greenhouse gases, reactive gases and aerosols) which influence climate, weather, and air pollution. One of its main activities is the coordination of global to local observations to drive impactful science and create new research-based products and services.

This research programme provides accurate scientific information for policymakers and supports international efforts on ozone depletion and climate change.

- Global Climate Observing System (GCOS)

The Global Climate Observing System (GCOS) is co-sponsored by the World Meteorological Organization (WMO), the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO), the United Nations Environment Programme (UN Environment), and the International Science Council (ISC). It regularly assesses the status of global climate observations of the atmosphere, land, and ocean, and produces guidance for their improvement.

GCOS expert panels maintain definitions of “Essential Climate Variables,” (ECVs) which are required to systematically observe Earth’s changing climate. The observations supported by GCOS contribute to solving challenges in climate research and underpin climate services, adaptation and mitigation measures.

- Global Framework for Climate Services (GFCS)

To enable better management of the risks of climate variability and change and adaptation to climate change, through the development and incorporation of science-based climate information and prediction into planning, policy and practice on the global, regional and

national scale.

Climate services provide climate information in a way that assists decision-making by individuals and organizations. Such services require appropriate engagement along with an effective access mechanism and must respond to user needs.

Such services involve high-quality data from national and international databases on temperature, rainfall, wind, soil moisture and ocean conditions, as well as maps, risk and vulnerability analyses, assessments, and long-term projections and scenarios. Depending on the user's needs, these data and information products may be combined with non-meteorological data, such as agricultural production, health trends, population distributions in high-risk areas, road and infrastructure maps for the delivery of goods, and other socioeconomic variables.

- World Climate Research Programme (WCRP)

The co-sponsored¹ World Climate Research Programme (WCRP) leads the way in addressing frontier scientific questions related to the coupled climate system — questions that are too large and too complex to be tackled by a single nation, agency, or scientific discipline.

The Programme coordinates and facilitates international climate research to develop, share, and apply the climate knowledge that contributes to societal well-being. WCRP research addresses the most pressing scientific questions related to the climate system to predict its near-term evolution, anticipate future pathways of climate change, and advance our scientific understanding. This supports the development of actionable climate information, scientific assessments, educational approaches, and public communication strategies that require collaborative efforts with multi-sectoral actors in all regions of the globe.

WCRP's work involves hundreds of scientists throughout the world, organized around a large number of research projects, activities, events, and publications. WCRP science underpins the United Nations Framework Convention on Climate Change, including national commitments under the Paris Agreement of 2015, and contributes to the knowledge that supports the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction, and multilateral environmental conventions.

- Climate Services Information System

The WMO Climate Services Information System (CSIS) is the principal mechanism through which information about climate – past, present and future – is routinely produced, archived, analyzed, modelled, exchanged and processed.

The CSIS is the “operational core” of the Global Framework for Climate Services (GFCS), the United Nations-led initiative spearheaded by WMO to support the production and delivery of authoritative climate information products through appropriate operational mechanisms, technical standards, communication and authentication. CSIS guides the development and application of science-based climate information and services in support of decision-making in climate-sensitive sectors, such as agriculture and food security, water resources, energy, disaster risk reduction and health.

The core functions of the CSIS includes:

- i. Climate data,

- ii. Climate monitoring,
- iii. Climate prediction,
- iv. Climate projection, and
- v. User-targeted climate information.

The operationalization of CSIS is organized as a three-tier network arrangement of global, regional and national providers, which carry out the CSIS functions at their respective levels. CSIS entities together ensure that climate information and products are generated, exchanged and disseminated, covering the entire space-time continuum from global to local and from past to the future:

At global level, a range of advanced centres produce global scale climate information,

At regional level, a network of entities regionalizes global scale climate information, and

At national and local levels, the National Meteorological and Hydrological Services (NMHSs) and their partners are committed to providing greater added value in their national and local context to inform decision-making across a wide range of socioeconomic sectors.

In addition to generating and providing climate information and services, the CSIS facilitates interaction between the providers and users of climate services to ensure a two-way information flow through User Interface Platforms (UIPs) at the regional and national scales.

8. Intergovernmental Panel on Climate Change (IPCC)

IPCC Introduction

The Intergovernmental Panel on Climate Change (IPCC) is the international body for assessing the science related to climate change. The IPCC was set up in 1988 by the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

IPCC assessments provide a scientific basis for governments at all levels to develop climate related policies, and they underlie negotiations at the UN Climate Conference – the United Nations Framework Convention on Climate Change (UNFCCC). The assessments are policy-relevant but not policy prescriptive: they may present projections of future climate change based on different scenarios and the risks that climate change poses and discuss the implications of response options, but they do not tell policymakers what actions to take. The IPCC is currently in its seventh assessment cycle which began in July 2023.

The IPCC is a unique interface between science and policy. Because of its scientific and intergovernmental nature, its assessments provide rigorous and balanced scientific information to decision-makers. Participation in the IPCC is open to all member countries of the WMO and United Nations. It currently has 195 members. The Panel, made up of representatives of the member states, meets in Plenary Sessions to take major decisions. The IPCC Bureau, elected by member governments, provides guidance to the Panel on the scientific and technical aspects of the Panel's work and advises the Panel on related management and strategic issues.

IPCC assessments are written by hundreds of leading scientists who volunteer their time and expertise as Coordinating Lead Authors and Lead Authors of the reports. They enlist hundreds of other experts as Contributing Authors to provide complementary expertise in specific areas. The authors may work with Chapter Scientists who cross-check between findings presented in different parts of the report, carry out additional fact-checking, and work on reference management among other things. Chapter Scientists are usually early career scientists.

IPCC reports undergo multiple rounds of drafting and review to ensure they are comprehensive and objective and produced in an open and transparent way. Thousands of other experts contribute to the reports by acting as reviewers, ensuring the reports reflect the full range of views in the scientific community. Teams of Review Editors provide a thorough monitoring mechanism for making sure that review comments are addressed.

The IPCC works by assessing published literature. It does not conduct its own scientific research. For all findings, author teams use defined language to characterize their degree of certainty in assessment conclusions². IPCC assessments point to areas of well-established knowledge and of evolving understanding, as well as where multiple perspectives exist in the literature.

The authors producing the reports are currently grouped in three working groups – Working Group I: The Physical Science Basis; Working Group II: Impacts, Adaptation and Vulnerability; and Working Group III: Mitigation of Climate Change – and the Task Force on National Greenhouse Gas Inventories (TFI). As part of the IPCC, a Task Group on Data Support for Climate Change Assessments (TG-Data) provides guidance to the Data Distribution Centre (DDC) on curation, traceability, stability, availability and transparency of data and scenarios related to the reports of the IPCC. TGData replaced the Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA) whose mandate was to facilitate the distribution and application of climate change-related data and scenarios.

IPCC Assessment Reports cover the full scientific, technical and socio-economic assessment of climate change, generally in four parts – one for each of the Working Groups plus a Synthesis Report. Special Reports are assessments of a specific issue. Methodology Reports provide practical guidelines for the preparation of greenhouse gas inventories under the UNFCCC.

Report

Since the IPCC was created in 1988, there have been 6 Synthesis Reports:

- [The Overview of the First Assessment Report](#) (1990)
- [The IPCC Second Assessment Report Synthesis of Scientific-technical Information Relevant to Interpreting Article 2 of the UNFCCC](#) (1995)
- [The Synthesis Report of the Third Assessment Report](#) (2001)
- [The Synthesis Report of the Fourth Assessment Report](#) (2007)
- [The Synthesis Report of the Fifth Assessment Report](#) (2014)

- [The Synthesis Report of the Sixth Assessment Report \(2023\)](#)

The AR6 Synthesis Report is based on the three Working Group contributions to the AR6 as well as on the three Special Reports prepared in this assessment cycle.

Activities

The main activity of the IPCC is the preparation of reports assessing the state of knowledge of climate change. These include assessment reports, special reports and methodology reports. To deliver this work programme, the IPCC holds meetings of its government representatives, convening as plenary sessions of the Panel or IPCC Working Groups to approve, adopt and accept reports. Plenary Sessions of the IPCC also determine the IPCC work programme, and other business including its budget and outlines of reports. The IPCC Bureau meets regularly to provide guidance to the Panel on scientific and technical aspects of its work. The IPCC organizes scoping meetings of experts and meetings of lead authors to prepare reports. It organizes expert meetings and workshops on various topics to support its work programme, and publishes the proceedings of these meetings. To communicate its findings and explain its work, the IPCC takes part in outreach activities organized by the IPCC or hosted by other organizations, and provides speakers to other conferences.

Future Work

At its 43rd Session in April 2016, the IPCC decided to prepare proposals for aligning the work of the IPCC during its Seventh Assessment Report (AR7) cycle with the needs of the global stocktake under the Paris Agreement. At its 46th Session in September 2017, the Panel established a Task Group on the Alignment of the IPCC Cycles and the Global Stocktake. At the 47th Session in March 2018, the Panel adopted the Task Group's terms of reference and renamed it Task Group on the Organization of the Future Work of the IPCC in Light of the Global Stocktake.

● Sixth Assessment Cycle

The IPCC is finalizing its Sixth assessment cycle. At its 43rd Session in April 2016, the IPCC decided to produce three Special Reports, a Methodology Report and the Sixth Assessment Report. The first of these special reports, Global Warming of 1.5°C was finalized in October 2018. The Special Report on Climate Change and Land was finalized in August 2019 and the Special Report on the Ocean and Cryosphere in a Changing Climate in September 2019. The Methodology Report, entitled 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, was delivered in May 2019.

The Working Group I contribution to the Sixth Assessment Report was finalized in August 2021. The Working Group II and III contributions were finalized in February and April 2022 respectively. The Synthesis Report was finalized in March 2023.

The IPCC also decided, at the 43rd Session, to include a Special Report on climate change and cities in the AR7 cycle. To stimulate scientific reports and peer-reviewed publications on this subject it decided to consider working with academia, urban practitioners and relevant scientific bodies and agencies to organize an international scientific conference on climate

change and cities early in the AR6 cycle. This conference was held in Edmonton, Canada, in March 2018.

At its 59th Session to be held in Nairobi, Kenya at the end of July 2023, the IPCC will be electing a new IPCC Bureau and a new Bureau of the Task Force on National Greenhouse Gas Inventories.

- The Sixth Assessment Report

The Working Group I contribution to the Sixth Assessment Report, Climate Change 2021: The Physical Science Basis was released on 9 August 2021.

The Working Group II contribution, Climate Change 2022: Impacts, Adaptation and Vulnerability was released on 28 February 2022.

The Working Group III contribution, Climate Change 2022: Mitigation of Climate Change was released on 4 April 2022.

The Synthesis Report, Climate Change 2023: Synthesis Report was released on 20 March 2023 to inform the 2023 Global Stocktake under the United Nations Framework Convention on Climate Change.

9. Green Climate Fund (GCF)

The Green Climate Fund (GCF) – a critical element of the historic Paris Agreement - is the world's largest climate fund, mandated to support developing countries raise and realize their Nationally Determined Contributions (NDC) ambitions towards low-emissions, climate-resilient pathways.

At COP 16 held in Cancun, by decision 1/CP.16, Parties established the Green Climate Fund (GCF) as an operating entity of the Financial Mechanism of the Convention. The relationship between the COP and the GCF is stipulated in the arrangements between the two, as contained in decision 5/CP.19. The Fund is governed by the GCF Board and it is accountable to and functions under the guidance of the COP to support projects, programmes, policies and other activities in developing country Parties using thematic funding windows.

Furthermore, the GCF serves the Paris Agreement in accordance with Article 9, paragraph 8, of the Paris Agreement. Guidance to the GCF on the policies, programme priorities and eligibility criteria related to the Paris Agreement is provided by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) and is transmitted by the COP. The COP decided that the guidance to the entities entrusted with the operations of the Financial Mechanism of the Convention in relevant decisions of the COP, including those agreed before adoption of the Paris Agreement, shall apply *mutatis mutandis*.

Article 9, paragraph 9, of the Paris Agreement states that the institutions serving this Agreement, including the operating entities of the Financial Mechanism of the Convention, shall aim to ensure efficient access to financial resources through simplified approval procedures and enhanced readiness support for developing country Parties, in particular for the least developed countries (LDCs) and small island developing States (SIDS), in the context of their national climate strategies and plans.

Priority Areas

The GCF's strategic plan for 2024-2027 articulates how GCF will significantly enhance its support to developing countries, improve access, and strive to deliver the highest levels of catalytic impact through its key assets – financial resources, partnerships, convening power, people and knowledge. Key areas of the plan include:

- Strengthened focus on how GCF will help developing countries translate their Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs) and Long-term Climate Strategies (LTS) into climate investments and programming;
- Clearer positioning of GCF's value-add in the wider climate finance architecture, as both a climate capacity-builder and risk-inclined financier; and
- Core operational commitment to significantly improving access for developing countries to GCF finance.

Partnership with GCF can enable IFC to develop transformative projects that can deliver climate impact, blending concessional funds to leverage significantly larger private sector resources to scale up climate-smart investments.

Transformative approach

We achieve our goal by investing across four transitions – built environment; energy & industry; human security, livelihoods and wellbeing; and land-use, forests and ecosystems – and employing a four-pronged approach:

- Transformational planning and programming: by promoting integrated strategies, planning and policymaking to maximize the co-benefits between mitigation, adaptation and sustainable development.
- Catalyzing climate innovation: by investing in new technologies, business models, and practices to establish a proof of concept.
- De-risking investment to mobilize finance at scale: by using scarce public resources to improve the risk-reward profile of low emission climate resilient investment and crowd-in private finance, notably for adaptation, nature-based solutions, least developed countries (LDCs) and small island developing states (SIDS).
- Mainstreaming climate risks and opportunities into investment decision-making to align finance with sustainable development: by promoting methodologies, standards and practices that foster new norms and values.

Climate change offers businesses an unprecedented chance to capitalise on new growth and investment opportunities that can protect the planet as well. GCF employs part of its funds to help mobilize financial flows from the private sector to compelling and profitable climate-smart investment opportunities.

Key features

- Country driven

A core GCF principle is to follow a country-driven approach, which means that developing countries lead GCF programming and implementation. Country ownership of GCF financing decisions enables developing countries to turn NDC ambitions into climate action. GCF's country-driven approach is underpinned by capacity-building support through its Readiness Programme that is available to all developing countries.

- An open, partnership organization

GCF operates through a network of over 200 Accredited Entities and delivery partners who work directly with developing countries for project design and implementation. Our partners include international and national commercial banks, multilateral, regional and national development finance institutions, equity funds institutions, United Nations agencies, and civil society organizations. This open partnership enables the Fund to foster unprecedented coalitions between private investors, development agencies and civil society organizations to achieve transformative change and support harmonization of standards and practices.

- A range of financing instruments

GCF can structure its financial support through a flexible combination of grant, concessional debt, guarantees or equity instruments to leverage blended finance and crowd-in private investment for climate action in developing countries. This flexibility enables the Fund to pilot new financial structures to support green market creation.

- Balanced allocation

GCF is mandated to invest 50% of its resources to mitigation and 50% to adaptation in grant equivalent. At least half of its adaptation resources must be invested in the most climate vulnerable countries (SIDS, LDCs, and African States). The GCF programming strategy recognizes that we must scale up both mitigation and adaptation efforts. GCF aims to leverage synergies and minimize potential trade-offs between adaptation and mitigation.

- Risk-taking, patient capital

GCF adds value to its partners by enabling them to raise the ambition of their climate action. By leveraging the risk management capacity of our partners and our own set of investment, risk and results management frameworks, GCF can accept higher risks to support early-stage project development as well as policy, institutional, technological and financial innovation to catalyze climate finance. This capacity to take risk is backed up by a robust second level due diligence system.

Areas of Work

Despite being a young organization, GCF's operations have quickly expanded to provide innovative solutions to the climate crisis in more than 100 countries, working with partners in the public and private sectors in efforts to mitigate the effects of the changing climate, and to help vulnerable people adapt to changes to the environment. Their operations span different countries, various modes of financing, a wide spectrum of strategic areas, and the

different facets of mitigation and adaptation interventions.

GCF works directly with countries that are affected by climate change. They do this through a country's National Designated Authority (NDA) or Focal Point (FP), government agencies tasked to liaise with GCF in delivering climate solutions.

Work theme: Their work aims to support paradigm shifts in both climate mitigation and climate adaptation efforts. GCF aims for a 50:50 balance between mitigation and adaptation investments over time.

Adaption challenges: Adaptation needs are coming into sharp focus as the impacts of climate change are more evident. Increasing numbers of people worldwide are being affected by the higher frequency and severity of water-related disasters, such as droughts, floods, tropical cyclones and storm surges, and heat-related disasters such as heat waves and wildfires.

We are facing adaptation challenges that we are only now beginning to grasp in their entirety. The health, livelihoods and lives of billions of people and of their children and grandchildren are at risk. Ever larger numbers of people are losing their homes in climate-related disasters or are forced to take the decision to leave their homes temporarily or permanently, due to climate-related threats to their physical security, food security or water security. The urgency to address adaptation challenges is now inescapable.

Mitigation challenges: Global emissions must be cut by 45 per cent by 2030 from 2010 levels if we are to meet the Paris Agreement goal of limiting global warming to 1.5°C. However, the current energy generation and end-use technologies in place are only capable of achieving less than half of the emissions reductions needed. Climate transition across four systems – energy, land and ecosystems, cities and infrastructure, and industry – must be accelerated to rapidly cut emissions and reduce the risks of the already grave climate change impacts being experienced around the world.

Climate change mitigation interventions seek to reduce the release of greenhouse gas emissions, or to increase the capacity of carbon sinks. We can do this by transitioning to cleaner sources of energy such as solar and wind, increasing the efficiency of buildings and appliances, introducing more efficient and sustainable transportation, reforestation, and improving the improved use of land.

Result Area:

GCF seeks to have an impact within eight mitigation and adaptation result areas. They are also committed to achieving a balance between funding for mitigation and adaptation initiatives.

GCF strives to ensure that our investments drive a paradigm shift towards low emissions and climate resilience. We consider both mitigation and adaptation as critical parts of the response

to climate change, with all eight result areas holding important potential, and will strive to achieve a balance in its portfolio. Our goal is to seek the “sweet spots” between national priorities, potential to deliver concrete climate benefits, cost considerations, and opportunities to deliver co-benefits.

The eight result areas cover both mitigation and adaptation and provide the reference points that will guide GCF and its stakeholders to ensure a strategic approach when developing programmes and projects, while respecting the needs and priorities of individual countries. The result areas have been targeted because of their potential to deliver a substantial impact on mitigation and adaptation.

- Health, food, and water security
- Livelihoods of people and communities
- Energy generation and access
- Transport
- Infrastructure and built environment
- Ecosystems and ecosystem services
- Buildings, cities, industries, and appliances
- Forests and land use

Other Themes: Cooperation for climate action-GCF complementarity and coherence with other climate funds

GCF is committed to ensuring that our activities complement those of other funds, and that together we have a coherent approach to supporting the climate ambitions of developing countries.

This commitment is set out in our Governing Instrument (para 33).

GCF has a Complementarity Framework which sets out our approach.

Complementarity refers to synergies among the various climate funds' activities in similar sectors and themes (adaptation or mitigation), and even across regions of similar characteristics, with the aim of scaling up transformative actions.

Coherence is about using country programming to seek alignment with Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs).

GCF works with the Adaptation Fund (AF), the Climate Investment Funds (CIF), and the Global Environment Facility (GEF) to maximize the impact of our activities.

In December 2023 at COP28 in Dubai, the four funds committed to increase their collaboration and published a joint declaration. To realize this they will develop a detailed action plan by the second half of 2024.

As part of its efforts in this area, GCF and GEF have developed a Long-Term Vision on Complementarity and Collaboration.

On 3 November 2021 - Finance Day at COP26, GCF adopted a joint statement with the Adaptation Fund, CIF and GEF.

10. Organization for Economic Co-operation and Development (OECD)

Climate change is increasingly impacting people's lives, disrupting national economies and transforming ecosystems, including the ocean. The need for urgent, strong and co-operative action based on mutual trust and understanding has never been higher.

The existential threat of climate change, and the interlinked biodiversity crisis and the multiple impacts of both, including on people, must be addressed as a core economic challenge. This requires broader whole-of-government strategies to achieve strong, sustainable, fair and resilient growth. In doing so, governments must manage a complex political economy of reform and pursue a transformation that creates opportunity for all.

At this critical moment, with the urgent need to turn climate ambitions into practical action and outcomes, the OECD supports countries with policies for mitigation, adaptation and resilience, as well as with overall economic transformation strategies. Find OECD work on climate action by theme:

- Mitigation
- Resilience
- Finance
- Measuring and monitoring

Mitigating emissions to tackle climate change

The OECD is working with Member and Partner countries as well as other international and regional organizations, to identify and evaluate economically efficient and socially responsible policy pathways to achieve net-zero emissions at the global, national and city/regional level. This work can draw on a rich set of OECD tools and expertise in policy advice across all relevant areas of government and sectors of the economy, to support countries for the significant policy reform required to achieve net-zero emissions by 2050.

- **Inclusive Forum on Carbon Mitigation Approaches**

The Inclusive Forum on Carbon Mitigation Approaches (IFCMA) is an initiative designed to help improve the global impact of emissions reduction efforts around the world through better data and information sharing, evidence-based mutual learning and inclusive multilateral dialogue. It brings together all relevant policy perspectives from a diverse range of countries from around the world, participating on an equal footing basis, to take stock of and consider the effectiveness of different carbon mitigation approaches.

- **People-centred mitigation policies**

- i. **Systems innovation for net zero**

While governments across the globe are making efforts to limit greenhouse gas emissions, climate action is not ambitious enough. To achieve net zero goals and limit global warming to well-below 2°C, as envisioned in the Paris Agreement, systemic transformations are needed.

The OECD has developed a process - systems innovation for net zero - to help governments achieve the transformational change needed to reach international climate goals while improving wider well-being outcomes.

Climate action could be more efficient and effective if focused on systems as a whole, so that – by design – systems require less energy and materials, and produce less emissions, while achieving wider well-being outcomes, such as improving our health and safety, and subsequently better lives.

ii. Air pollution

Air pollution is the world's leading environmental health risk and a major cause of environmental degradation. As the main environmental trigger for premature death globally, it is vital to tackle air pollution while also finding sustainable ways to cope with the pressures of economic activity. To support policy makers in their decision-making, the OECD provides analysis on the health, environmental, and economic consequences of air pollution.

Sustainable infrastructure and clean energy

i. Strategic Policies for Sustainable Infrastructure <https://web-archive.oecd.org/2021-12-02/540619-sustainable-infrastructure.htm>

Sustainable and quality infrastructure plays a crucial role in society and economy. It is indispensable for delivering better and more inclusive economic, social and environmental conditions, and for supporting growth by expanding access to vital services and improving economic opportunities for all.

Sustainable infrastructure is complex, long-term by nature, and involves numerous risks and stakeholders. The purpose of the horizontal project is to provide a cross-cutting and multidisciplinary response to address these challenges and ensure infrastructure reaches its economic, environmental, social and development objectives.

The initiative aims to harness the wide range of OECD expertise and knowledge to provide guidance, good practices, data and analysis that can support policymakers in delivering key aspects of sustainable and quality infrastructure.

ii. Greening energy <https://www.oecd.org/greengrowth/greening-energy/>

The International Energy Agency (IEA) Clean Energy Transitions Programme (CETP) is an ambitious effort to accelerate global clean energy transitions. The programme provides independent, cutting-edge support to governments whose energy policies will significantly influence the prospects for – and the speed of – the global transition towards more sustainable energy production and use.

iii. Monitoring and measuring progress towards climate ambitions

The OECD supports countries in the essential task of tracking progress toward climate goals, in addition to commitments made. The OECD designs and monitors indicators towards progress, as well as peer-led country reviews across diverse policy areas, including innovative work to provide primary data on complex policy issues. OECD international data and indicators on the environmental, economic, financial and social dimensions of climate change provide essential information for effective climate policies.

Databases to inform better climate action

The OECD International Programme for Action on Climate (IPAC) supports country progress toward net zero greenhouse gas (GHG) emissions and a more resilient economy by 2050. Through regular monitoring, policy evaluation and feedback on results and best practices, IPAC helps countries strengthen and co-ordinate their climate action. It complements and supports the UNFCCC and the Paris Agreement monitoring frameworks.

Tracking climate finance provided by developed countries

The OECD is tracking climate finance provided and mobilized by developed countries for climate action in developing countries. The data gathered from donor countries, multilateral development banks and climate funds quantifies progress made by developed countries towards the collective goal of mobilizing USD 100 billion per year by 2020.

The series of OECD reports on Climate Finance and the USD 100 Billion Goal explores key trends of climate finance provided and mobilized, looking at its distribution across climate themes, sectors, financial instruments and recipient country groupings.

Measuring support measures for fossil fuels

Governments have committed to phasing out inefficient fossil-fuel subsidies in a number of international fora, but reforms are difficult to put in place if the magnitude and full impact of support measures are not fully understood.

The OECD provides a platform to help governments evaluate their allocation of scarce budgetary resources to fossil fuels and their alignment with environmental and well-being goals.

To do so, the OECD Inventory of Support Measures for Fossil Fuels documents and estimates the fiscal cost of government support measures that encourage fossil-fuel production or consumption relative to renewable alternatives.

Measuring carbon pricing and energy use

Carbon pricing provides incentives for households and businesses to reduce carbon-intensive energy use and shift to cleaner fuels, while also mobilising government revenue. The OECD's data on Pricing Greenhouse Gas Emissions covers 71 countries, representing 80% of global emissions.

The OECD's data on Pricing Greenhouse Gas Emissions covers 71 countries, representing 80% of global emissions.

Gaging citizen support for climate policies

Policies to address climate change have been historically difficult to implement, partly because of a real or perceived lack of public support.

A recent survey on public attitudes towards climate policies showed that a key way to increase support for carbon taxes, for example, is by designing them in such a way that their revenue offsets the burden on low-income households.

This can be done through lower income taxes or cash transfers. Explore the digital report to learn about the complex factors that drive or diminish public support for ambitious climate policies.

iv. Greening transport <https://www.oecd.org/environment/greening-transport/>

Air pollution and transport

Projecting the fuel efficiency of conventional vehicles: The role of regulations, gasoline taxes and autonomous technical change (2022)

Tackling air pollution in dense urban areas: the case of Santiago, Chile (2022)

Blog: The challenges of greening urban mobility in the post-pandemic era (2020)

Non-exhaust Particulate Emissions from Road Transport: An Ignored Environmental Policy Challenge (2020)

Land Use and transport

Decarbonizing Urban Mobility with Land Use and Transport Policies: The Case of Auckland, New Zealand (2020)

The Environmental and Welfare Implications of Parking Policies (2019)

Rethinking Urban Sprawl: Moving Towards Sustainable Cities (2018)

Transport and the Well-being lens to Climate Change Mitigation

Accelerating Climate Action in Israel: Refocusing Mitigation Policies for the Electricity, Residential and Transport Sectors (2020)

Addressing the COVID-19 and climate crises: Potential economic recovery pathways and their implications for climate change mitigation, NDCs and broader socio-economic goals (2020)

Accelerating Climate Action: Refocusing Policies through a Well-being Lens (2019)

● **Carbon pricing and fossil fuel subsidies**

Carbon pricing and taxation of energy use

The OECD measures carbon prices applicable to CO₂-emissions from energy use in 44 OECD and G20 countries, covering around 80% of CO₂-emissions from energy use. It also tracks taxes on energy use in those countries and in a selection of developing and emerging economies.

Fossil fuel subsidies reform

The production of fossil fuels continues to be supported via tax incentives in many countries across the globe, as well as policies that keep consumer prices artificially low. In order to reduce fossil fuel use and avoid locking in fossil-fuel based capacity, reforms need to be accelerated.

Carbon markets

Market-based instruments, such as cap-and-trade emission trading schemes, are crucial to price carbon emissions and keep the costs of climate action low. A cap-and-trade scheme enables emitters to trade allowances for the right to emit up to their allowed limit or "cap".

Economic impacts

Economic policies to foster green growth <https://www.oecd.org/environment/greeneco/>

Examples: Assessing the economic impacts of environmental policies: Evidence from a decade of OECD research

Green growth and top reform priorities

Can we reduce CO2 emissions without hurting jobs?

Going for greener growth - what can indicators tell us?

Environmental indicators, modelling and outlooks

<https://www.oecd.org/environment/indicators-modelling-outlooks/>

Cost-Benefit Analysis and the Environment <https://www.oecd.org/environment/cost-benefit-analysis-and-the-environment-9789264085169-en.htm>

RE-CIRCLE: resource efficiency and circular economy

<https://www.oecd.org/environment/waste/recircle.htm>

- **An integrated approach**

- i. Resilient, green and low-carbon cities

- Countries, regions and cities must work together to tackle climate change. Cities can provide concrete solutions to addressing climate change, and demonstrate strong leadership in setting bold sustainability and CO2 reduction targets.

- ii. Climate change and food systems

- The OECD identifies policy solutions that can unlock the large mitigation potential of food production, while helping to minimize the economic impacts on the agri-food sectors and consumers.

- iii. Innovation and technology

- Embracing new technologies that enable drastic reductions in greenhouse gas emissions will be a crucial element to a successful transition. Innovation is increasingly directed towards climate change-related technologies.

As well as supporting the international climate negotiations over many years, the OECD has increased its efforts to help countries to deliver on their national and international climate commitments and contributions. OECD's work focuses on the environmental, economic, financial and social dimensions that are critical to the creation of low-emissions, climate-resilient development pathways. (<https://www.oecd.org/env/cc/index.htm>)

Climate Action and the Economy

Decisive climate action should form an integral part of economic development plans.

- Costs of Inaction and Resource scarcity: Consequences for Long-term Economic growth (CIRCLE)
- Economic policies to foster green growth
- Environment-economy modelling
- Growth, Investment and the Low-Carbon Transition
- Financing Climate Futures: Rethinking Infrastructure

Climate Resilience and Adaptation

The OECD is responding to the challenge of climate adaptation by supporting governments in planning and implementing effective, efficient and equitable adaptation policies

- Adaptation
- Development and Climate Change
- Environment and development
- Risk Governance
- Water

Green Finance, Investment and Tracking

The OECD is helping to catalyze and support the transition to a green, low-emissions and climate-resilient economy through the development of effective policies, institutions and instruments for green finance and investment.

- Centre on Green Finance and Investment
- Clean Energy Finance and Investment Mobilization programme
- Investment for green growth
- Mobilizing investment in clean energy infrastructure
- OECD Blended Finance
- OECD Statistics on External Development Finance Targeting
- Paris Collaborative on Green Budgeting
- Research Collaborative on Tracking Finance for Climate Action
- Climate Finance Provided and Mobilized by Developed Countries

Input to International Climate Fora

Find out how the OECD is contributing to the international climate negotiations:

- Climate Change Expert Group
- OECD at UNFCCC conferences (COP)
- OECD and the G20: Energy, environment and green growth

Pricing, Fossil Fuels, Taxes and Transport

Access latest OECD work in each of the areas below:

- Environmental Performance Reviews
- Fossil-Fuel Support Reform
- Greening Transport
- International Energy Agency work on energy and climate
- Investment for green growth
- Taxes and the environment
- Transport

Land-use, Ecosystems and Agriculture

The linkages and interactions between climate change, land use, ecosystems and agriculture are inextricable, offering both opportunities for synergies and the need to reconcile trade-offs when devising policies. The OECD is conducting multiple areas of work across this diverse nexus of issues.

- Agriculture and Climate Change
- Agriculture and the Environment
- Biodiversity
- Towards Sustainable Land Use: Aligning Biodiversity, Climate and Food Policies

Cities and Climate Change

How can cities be most effective in tackling climate change and achieving greener growth? Recent OECD work explores these questions in detail.

- Champion Mayors Platform
- Cities, climate change and green growth
- Greening Cities, Communities and Regions
- Roundtable on Financing Water
- Spatial Planning Instruments and the Environment (SPINE)

10.1 OECD International Programme for Action on Climate (IPAC)

The OECD International Programme for Action on Climate (IPAC) supports country progress towards net-zero greenhouse gas (GHG) emissions and a more resilient economy by 2050. Through regular tracking, policy evaluation and feedback on results and best practices, IPAC helps countries strengthen and co-ordinate their climate action. It complements and supports the UNFCCC and the Paris Agreement monitoring frameworks.

Launched in May 2021, IPAC leverages the OECD's unique multidisciplinary and long-standing experience in evidence-based analysis. It builds on existing data and indicators, policy tools and advice developed by the OECD, the International Energy Agency (IEA), the International Transport Forum (ITF) and the Nuclear Energy Agency (NEA). Given the urgency of the climate challenge, robust monitoring and assessment tools are essential to ensure actions are effective in delivering on commitments.

The four components of IPAC:

- Dashboard of climate indicators

The Dashboard features key indicators that provide an at-a-glance view of country actions and progress towards climate objectives and trajectories toward net zero. It will inform the Climate Action Monitor and guide analysis.

- Annual Climate Action Monitor

The Monitor will provide an annual digest of country progress towards climate objectives, building on the Dashboard and supported by a policy framework. It will feature examples of climate mitigation and adaptation best practices and results.

- Country notes

IPAC country notes will assess progress toward climate goals considering countries' specific circumstances. They will use a broader OECD climate indicator set and include targeted policy advice to help with the design of coherent and economically and socially viable mitigation

and adaptation action plans.

- Dedicated web portal

The web portal will provide an interactive platform for dialogue and mutual learning. It will facilitate the exchange of best practices and innovative approaches, and provide easy access to other climate-related tools and projects.

Technical Expert Group (TEG)

The IPAC Technical Expert Group (TEG), established in May 2021, is responsible for identifying the key indicators used in the Dashboard and the Annual Climate Monitor, as well as the broader set of climate-related indicators that will complement the analysis and feed into the country notes. The TEG also identifies indicators where additional methodological or measurement work are needed, and provide guidance for such developmental work.

The TEG is composed of climate experts from OECD countries and participating economies as well as experts from IEA, ITF, NEA, OECD, and from IMF, UNECE, UNSD, UNFCCC, and Climate Transparency. The TEG members bring in a variety of competencies, from measurement (data, accounts, indicators) to the use of indicators in policy development and evaluation.

IPAC is funded by voluntary contributions. During the initial phase (2021-22), it is a key component of the OECD Project on Climate and Economic Resilience.

The Climate Action Monitor

The Climate Action Monitor is IPAC's annual flagship publication. It provides a synthesis of climate action and progress towards net-zero targets for 51 OECD and OECD partner countries. It presents a summary of information on greenhouse gas emissions, an assessment of climate-related hazards, and key trends in climate action. Directed towards policymakers and practitioners, the findings confirm, as COP28 gets underway, that without increased ambition and a significant increase in national climate action, countries will not be able to meet the net-zero challenge.

This work is part of the OECD's Net Zero+ project which study global pathways to net zero and examine complementary policy actions that support profound structural reforms. Key actions for countries include:

- Increased ambition and adopt whole-of-the-government policy approaches.
- Strive to accelerate progress towards net-zero targets and avoid backsliding despite navigating multiple crises.
- Develop actionable strategies to address bottlenecks, including expanding the supply of critical materials for the energy transition.
- Ensure a just transition to protect vulnerable communities.

Based on the IPAC Dashboard, The Climate Action Monitor provides a digest of country progress towards climate objectives and alignment with Paris Agreement goals to help countries advance towards net zero.

Climate Action Dashboard

The Climate Action Dashboard by the OECD features key indicators to track progress towards climate objectives and provide a snapshot of country climate action. It is one of the four components of the International Programme for Action on Climate, set up to help countries pursue progress towards net-zero greenhouse gas emissions and a more resilient economy by 2050. <https://www.oecd.org/climate-action/ipac/dashboard>

- Climate actions and policies measurement framework <https://oecd-main.shinyapps.io/climate-actions-and-policies/>
- Weather, Climate and Energy Tracker <https://www.iea.org/data-and-statistics/data-tools/weather-for-energy-tracker?tab=Climate+Hazard+Exposure+Tracker>

Climate Policies in Practice

Nearly all OECD countries committed to achieving climate neutrality by 2050 or even earlier. However, no single country holds the key to solving the multitude of challenges in the transition towards an inclusive, green economy. Different situations will require different policy responses. It will be important that countries learn together and from one another:

- What has worked well and why?
- How can we most efficiently green our economies?
- How can we promote an inclusive transition?

This platform offers practical policy examples of how OECD countries and partner economies have addressed the challenge of mitigating climate change in various sectors and at different government levels. The platform compiles policy responses and measures drawn from a broad range of OECD analysis, including country peer reviews. It facilitates knowledge exchange and experience-sharing on innovative approaches. Its ultimate goal is to inspire policy makers, business and civil society to take action to move us towards a net-zero world. The content of the platform will grow over time based on feedback from users and ongoing OECD work.

Examples:

Norway's evolving incentives for zero-emission vehicles (<https://www.oecd.org/climate-action/ipac/practices/norway-s-evolving-incentives-for-zero-emission-vehicles-22d2485b/>)

New Zealand's plans for agricultural emissions pricing (<https://www.oecd.org/climate-action/ipac/practices/new-zealand-s-plans-for-agricultural-emissions-pricing-d4f4245c/>)

Germany's sponge cities to tackle heat and flooding (<https://www.oecd.org/climate-action/ipac/practices/germany-s-sponge-cities-to-tackle-heat-and-flooding-7b6caa58/>)

10.2 Paris Collaborative on Green Budgeting

The OECD Paris Collaborative on Green Budgeting was launched at the One Planet Summit in Paris on 12 December 2017. It aims to design new, innovative tools to assess and drive improvements in the alignment of national expenditure and revenue processes with climate and other environmental goals. This is a crucial step in achieving a central objective of the Paris Agreement on climate change as well as of the Aichi Biodiversity Targets and the United Nations' Sustainable Development Goals – aligning national policy frameworks and financial flows on a pathway towards low greenhouse gas emissions and environmentally sustainable development.

Green Budgeting

Environmentally responsive or green budgeting means using the tools of budgetary policymaking to help achieve environmental goals. This includes evaluating environmental impacts of budgetary and fiscal policies and assessing their coherence towards the delivery of national and international commitments. Green Budgeting can also contribute to informed, evidence-based debate and discussion on sustainable growth.

One of the most important tools that policy makers have at their disposal for resourcing and implementing their national policies on environmental goals is budget and fiscal policy. Incorporating environmental dimensions into fiscal frameworks, including the annual and multiannual budget documents, evaluation of tax and expenditure policies and long-term sustainability analysis, will help governments to become more accountable for their environmental commitments and support them in transforming towards sustainable and resilient societies.

Green Budgeting will support governments in achieving their national and international environmental goals by:

- evaluating environmental impacts of budgetary and fiscal policies
- assessing their coherence towards the delivery of national and international commitments
- contributing to informed, evidence-based debate and discussion on sustainable growth

Working method

The OECD Paris Collaborative for Green Budgeting is working in close partnership with governments and experts to co-design practical and pragmatic approaches. It provides a coordinating platform for:

- identifying research priorities and gaps
- sharing best available data, expertise and information to advance policy-relevant research and implementation
- facilitating alignment of national and international budget policy design
- introducing a coherent narrative across what would otherwise be disparate research outputs
- communicating results to raise awareness and signal support for action and accountability on environmental policy imperatives
- developing cross-national indicators of progress against various international environmental goals

It brings together international work-streams on environmental policy and climate change, budgeting and tax policy, green accounting and inclusive sustainable growth. It will work towards agreed definitions and methodologies that can support national approaches to green budgeting and develop outputs that can improve coordinated national and international policy design. It seeks to build upon and support established international reporting practices rather than to develop duplicative approaches.

Government participation

The OECD Paris Collaborative for Green Budgeting seeks close partnership with governments around the OECD and beyond to co-design practical and pragmatic approaches to put Green Budgeting into action. In practice, this will involve close consultation with national Finance and Environmental experts to develop new tools and methodologies that are sensible and effective.

Governments can participate by:

- Joining our regular network meetings and workshops to input their country views and share expertise and notable examples of good practice
- Advancing national projects and initiatives that come within the scope of the Green Budgeting work programme under the Paris Collaborative umbrella
- Testing and piloting Green Budgeting methodologies in their country

11. Climate Investment Fund (CIF)

Established in 2008, the Climate Investment Funds (CIF) is a multilateral climate fund that enables climate action in over 70 low- and middle-income countries. CIF deploys highly concessional finance to empower transformations in clean technology, energy access, climate resilience, nature-based solutions, and other areas.

A core strength of CIF's business model is its flexible, country-led programmatic approach and multilateral development bank (MDB) partnership model. CIF is the only multilateral climate fund to work exclusively with MDBs as implementing entities - IFC is one of six MDBs that can access CIF funds to implement projects. Through its blended finance practice, IFC co-invests concessional funding provided by CIF alongside its own funds. The CIF-IFC blended finance partnership is focused on responding to the growing demand for climate change solutions and supporting the deployment and testing of climate mitigation and adaptation projects through the private sector, meeting the need for critical climate interventions around the world.

CIF comprises two umbrella funds, namely, the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF).

Priority Areas

Clean Technology Fund

CTF supports projects and programs within the renewable energy, energy efficiency, and clean transport sectors, as well as other emerging clean technology, with high GHG abatement opportunities at the country, regional or sub-regional levels. CTF funds are expected to target three types of private sector players:

- project sponsors (e.g. developers of clean technologies or large companies implementing new technologies);
- investors in climate mitigating projects (banks, pension and equity funds, insurance

- companies, etc.); and
- financial intermediaries developing new lines of credit for climate change investments (banks, leasing companies, ESCOs, etc.)

The pricing and terms of CTF funds offered to private sector clients are structured on a case-by-case basis to address the specific barriers identified in each project. A full spectrum of financing instruments is available, ranging from blended concessional finance to advisory/technical services.

Strategic Climate Fund

SCF provides financing to pilot innovative approaches and to scale-up activities aimed at specific climate change challenges or sectoral responses. The fund serves as an overarching framework that provides financing through several programs, namely Scaling up Renewable Energy Program, Forestry Investment Program, Pilot Program for Climate Resilience, Renewable Energy Integration Program, Nature, People and Climate Program, Industry Decarbonization Program, and Smart Cities Program.

SCF Program Snapshot: Pilot Program for Climate Resilience

The Pilot Program for Climate Resilience (PPCR) supports developing countries and regions in building their adaptation and resilience to the impacts of climate change. First, PPCR assists governments in integrating climate resilience into strategic development planning across sectors and stakeholder groups. Secondly, it provides concessional and grant funding to put the plans into action and pilot innovative public and private sector solutions. A prime example, in 2018 IFC invested PPCR funds – in addition to CTF funds -- into a private sector company to develop a first-of-its kind solar power plant in rural areas in Mozambique. Mocuba Solar exemplifies the best of IFC and CIF's blended concessional finance partnership: facilitating pioneering projects that have the ability to become commercially viable in developing countries, and supporting efforts towards a low-carbon future.

Mode of Works

Climate Investment Funds is a global leader in raising flexible, secure, concessional climate finance to pilot and scale cutting-edge climate solutions and innovations.

CIF is one of the world's largest multilateral funds helping low and middle income countries adapt to and mitigate climate change. Since 2008, it has been channelling funds from government donors and the private sector to support more than 370 projects in 72 countries. Its launch emerged from recognition by world leaders that climate change and development are inextricably intertwined, and that climate-smart investment is needed at scale to deliver on the opportunities for green growth identified in the UN's Sustainable Development Goals (SDG's).

Working in partnership with governments, the private sector, civil society, local communities, and six major multilateral development banks (MDBs), CIF provides highly competitive financing that reduces risk for investors, lowering barriers to piloting new technologies, scaling up proven solutions, opening up sustainable markets, and mobilizing private sector

capital for climate action. Rallying stakeholders behind increasingly ambitious climate goals and complementary action, CIF draws in diverse partners who might otherwise be deterred from investing alone.

Currently boasting an impressive average co-financing generation rate of 1:8.3, CIF programs function as a catalyst to crowd in additional private sector financing. Indeed, these activities have proven to stimulate local economies and kickstart new markets in partner countries, thus attracting over \$8 in additional financing for every dollar of Climate Investment Funds financing.

12.1 CIF Programs

The Climate Investment Funds accelerates climate action in developing countries through programs funding energy transitions, resilience, and nature-based solutions.

ACCELERATING COAL TRANSITION INVESTMENT PROGRAM

The Accelerating Coal Transition (ACT) investment program is a one-of-a-kind mechanism that presents a unique opportunity for a large-scale solution to the generational crisis of climate change. It raises the global ambition for action; while developed countries have identified transitioning out of coal as a priority in dedicating large-scale resources to the process, there is currently no such initiative underway in the developing world. ACT provides a dedicated platform that offers resources at scale at a time when these countries are facing competing pressures on their public finances. It will have a powerful demonstration effect by testing different models and approaches that can be applied more widely, thereby further accelerating the rate and scale of energy transition.

How it works

The ACT investment program offers a holistic toolkit to support countries transitioning away from coal, tackling challenges linked to national strategies, people, and communities, as well as land and infrastructure. It builds support at the local level to reconsider the development of new coal plants and accelerate the retirement of existing coal assets. Finally, it fosters new economic activities fueled by new sources of energy by working with public sector utilities and private sector operators to define paths to advance clean energy transitions.

ACT works across three pillars to support the transition away from coal.

- **Governance:** To achieve support and commitment at the country level for transitioning out of coal assets, the ACT program will consult with key stakeholders, build technical and institutional capacities, as well as help governments develop transformation strategies and economic and social development plans, among other activities.
- **People and Communities:** In line with the premise of ensuring that the approach to addressing coal transition challenges is holistic, the program will support socioeconomic measures to minimize the impacts of the transition on people and communities. Measures include a focus on upskilling and reskilling to help people not only retain jobs where feasible, but also prepare for new jobs as available.

- Infrastructure: Reclaiming and repurposing the existing infrastructure, including land and power plants, will be a core area of support.

THE REACT TOOL: INFORMING COAL TRANSITION STRATEGIES

To advance knowledge and analysis on coal transition, CIF published the ReACT report. Drawing on findings from this report, the ReACT Tool breaks new ground by providing an online, user-friendly tool to inform transition strategies. It analyzes information on up to 200 coal power plants and helps identify the most suitable for early retirement, evaluating climate smart options to repurpose infrastructure: these can be energy and non-energy such as solar, storage, green hydrogen, or reforestation solutions among others.

The ReACT Tool seeks to build capacity, share knowledge and accelerate a transition towards a net zero future. While the ReACT Tool does not replace the need for detailed feasibility studies, it does offer a sound preliminary assessment to help decision makers understand key considerations to underpin their coal transition strategies.

CLEAN TECHNOLOGY FUND

The Clean Technology Fund (CTF) enables clean energy transformation in developing countries. It provides resources to scale up low-carbon technologies with significant potential for long-term greenhouse gas emissions savings. The fund supports a wide array of clean technologies across different areas, including renewable energy, energy efficiency (of buildings, agriculture, and industry), and clean transport.

How it works

An investment plan is developed under the leadership of the recipient country that identifies the major sources of greenhouse gas emissions and key opportunities for mitigation. The scope of these plans is tailored to fit national priorities. The fund then works to source co-financing and scale access to capital for clean energy projects by encouraging financial institutions to develop lending programs for private companies. Beyond investment plans, countries can also pursue projects that prioritize private-sector investments in specific thematic technology areas.

MEASURING RESULTS

CTF tracks progress on the reduction or avoidance of greenhouse gas (GHG) emissions; mobilization of co-financing from public and private entities; installed renewable energy capacity; improved access to low-carbon public transport; and increased energy efficiency. The multilateral development banks (MDBs) are responsible for collecting, aggregating, and reporting data on these indicators annually for all CTF-funded projects under implementation.

GLOBAL ENERGY STORAGE PROGRAM

The Global Energy Storage Program (GESP) is a funding window under the Clean Technology Fund. It delivers breakthrough energy storage solutions at scale in developing countries. The program makes the Climate Investment Funds the world's largest multilateral fund supporting energy storage. Building on over \$400 million in existing storage support, GESF funding is

expected to mobilize an additional \$2 billion of public and private investments for these vital technologies.

This first-of-its-kind investment program has the following aims:

- Help develop new storage capacity in developing countries;
- Accelerate cost reduction;
- Support the integration of variable renewable energy into grids; and
- Expand energy access for millions of people.

How it works

GESP is a global partnership of governments, multilateral development banks, and private corporations committed to delivering on a climate-smarter future through energy storage technologies. They include the following entities:

- Climate Investment Funds,
- World Bank,
- International Finance Corporation,
- Inter-American Development Bank,
- African Development Bank,
- Asian Development Bank, and
- European Bank for Reconstruction and Development.

Concretely, GESP concessional finance — finance with substantially below-market terms and conditions — supports these areas:

- Solar, wind, and hybrid power projects with storage for grid services;
- A wide range of technically and economically viable storage systems, including, but not limited to, gravity-based technologies, thermal storage, and electrochemical batteries;
- Large-scale demonstration projects supporting less mature, but technically viable, long-duration storage technologies;
- Mini-grids and distributed energy applications;
- Policy and regulatory reforms that promote

Participation of the full range of energy storage services and fair compensation for them,

Environmentally friendly storage technologies, and

Battery recycling programs; along with

- International cooperation to address key research, development, and knowledge gaps hindering the long-term sustainable deployment of energy storage, including through piloting or testbeds of new technologies.

MEASURING SUCCESS

The Global Energy Storage Program (GESP) window tracks results from deployed energy storage solutions and policies supported. In addition, GESP benefits from its own real-time learning initiative, which is designed to enhance knowledge and evidence from energy storage investments throughout the course of the program's implementation.

FOREST INVESTMENT PROGRAM

The Forest Investment Program (FIP) empowers developing countries to manage their natural resources in a way that achieves the triple win of being good for the forests, good for development, and good for the climate. The program aims to reverse the impacts of human actions and climate change on our forest ecosystems.

How it works

This program supports its country partners with direct investments to address the drivers of deforestation and forest degradation. Grants and low-interest loans help governments, communities, and business stakeholders work together to achieve sustainable solutions. It supports the people and economies dependent on forests, while maintaining the important environmental services that forests provide.

MEASURING RESULTS

FIP tracks progress on its contributions to greenhouse gas (GHG) emissions reductions/enhancement of carbon stocks; sustainable land management; and livelihood co-benefits for forest communities, such as improved access to finance, support from technical assistance, and employment opportunities.

FIP projects and programs also report on other relevant co-benefits, including biodiversity, governance, land tenure, and capacity building. Multi-stakeholder engagement is central to the implementation and monitoring of FIP's investment plans. As part of FIP's approach to monitoring and reporting, state and non-state stakeholder groups in each FIP recipient country come together for a workshop that involves reviewing, discussing, and assessing progress on all FIP projects under implementation in the country. This inclusive, participatory approach enriches the process, builds monitoring and reporting capacity, and improves results.

INDUSTRY DECARBONIZATION PROGRAM

The Climate Investment Funds' (CIF) Industry Decarbonization Program has the potential to transform the carbon-emissions pathway of high-emitting industry sectors in developing and emerging countries, and to demonstrate the kind of change that can be replicated in similar sectors elsewhere. It could facilitate the shift of the industrial sector to sustainable practices and unlock investments needed to move it onto a low-carbon, climate-resilient investment pathway.

How it works

The program works across multiple levels — industrial facility, technology, corporate, sectoral, and national. Through the targeted use of concessional finance to address the barriers to investment, via the provision of a combination of technical assistance and investment support, this program seeks to reduce system-wide barriers to investment in low-carbon, climate-resilient business models and technologies.

Program activities will be implemented under three components:

- At the corporate and sector levels, program activities will support climate governance and strategies through policy dialogues, capacity building, and technical assistance; the

integration of climate considerations into decision-making; and the deployment of climate technologies across supply chains.

- At the national or regional levels, they will facilitate dialogues on climate-resilient pathways and the implementation of policy considerations, such as energy-efficient regulation and climate-governance standards for financing.

- In the areas of monitoring, reporting, and verification, they will focus on improving current practices and organizing sector participation in national and internal policies, including through accessing green financial markets, as well as internal domestic and international climate markets.

NATURE PEOPLE AND CLIMATE PROGRAM

The Nature, People and Climate (NPC) Investment Program aims to tackle the multiple drivers and impacts of climate change, resulting from human activities on land resources and ecosystems services, in an integrated manner.

The NPC program will deploy nature-based solutions that recognize the interdependence among land use, climate-change mitigation and adaptation, and the improvement of the sources of livelihoods of rural communities and Indigenous peoples. By managing these complex and conjoined relationships and understanding the trade-offs, lasting change can be achieved. By working to adapt to climate change and mitigate its impacts across a diversity of land uses, we can sustainably support many different livelihoods and a just transition that serves to reduce poverty and distribute prosperity equitably.

How it works

The NPC program, benefiting from the breadth of previous experience gained through CIF's Forest Investment Program and the Pilot Program for Climate Resilience, is built on the solid foundations of the lessons learned and innovations from these programs.

The program is designed to adopt a holistic and consultative multisectoral, systems-level approach, enabling all affected stakeholders to participate. It features three phases that can be delivered sequentially, simultaneously, or by itself:

- A rapid landscape diagnostic phase works with all stakeholders to identify and assess risks, requirements, and priorities.
- A strategy and project pipeline development phase arises from the diagnostic. It involves defining the strategy and the types of projects required to meet local climate objectives.
- The implementational rollout phase focuses on financing and delivering the strategy, as well as identified nature-based solutions and related projects.

The program maximizes the in-country impact of CIF's multilateral development bank (MDB) partners by joining initiatives under a programmatic approach that addresses the following aims:

- Bridges the gap between policy and investment;
- Enhances the ability to innovate how concessional finance is delivered; and

- Benefits the specific needs of people and ecosystems in developing countries.

Examples of projects that may be delivered are presented below:

- Assistance to local government in preparing bankable projects to help attract private-sector investment;
- Local policy development and legislative advice to create enabling circumstances for identified projects;
- Incorporation of climate-smart interventions into agriculture or forestry;
- Creation, cultivation, and stimulation of enterprises or markets for nature-based products and services.

EMPOWERING LOCAL PEOPLE

Indigenous peoples and local communities are often critical to the success of nature-based solutions to climate change. Because of their lived experience at the sharp edge of climate change, Indigenous peoples and local communities are potential agents of viable climate solutions who possess significant knowledge that can be harnessed. However, their important role is often overlooked and undervalued.

The NPC program aims to reverse that situation by promoting the participation of Indigenous peoples and communities, through a unique direct financing initiative called the Dedicated Grant Mechanism (DGM) to:

- Empower and finance local, sustainable, and socially inclusive enterprises of Indigenous peoples and communities that are driving climate-change solutions; and
- Engage the knowledge, experience, and capacities of those at the forefront of climate change in climate action.

Most significantly, the DGM seeks to deliver a just transition successfully by working to reduce the impacts of climate change on those who are already poor, marginalized, or otherwise vulnerable.

PILOT PROGRAM FOR CLIMATE RESILIENCE

The Pilot Program for Climate Resilience (PPCR) supports developing countries and regions that are highly vulnerable to climate change. It strengthens their adaptive capacities and resilience against the impacts of climate change on their communities, ecosystems, and infrastructures.

How it works

Applying the Climate Investment Funds' programmatic approach, this program helps governments integrate climate resilience into strategic development planning across multiple stakeholder groups. It builds an enabling environment for transformational change and provides concessional and grant funding to pilot innovative public- and private-sector climate resilience solutions. Founded on the principles of country ownership and multi-stakeholder participation, this program was praised by the United Nations' Intergovernmental Panel for Climate Change as a successful example of multi-level governance in climate

solutions.

MEASURING SUCCESS

PPCR tracks progress on the integration of climate change into national and sectoral planning; strengthened government capacity and coordination mechanisms; the development and uptake of climate-responsive tools and strategies; and the number of people supported to cope with the effects of climate change.

Multi-stakeholder engagement is central to the implementation and monitoring of PPCR's strategic programs for climate resilience (i.e., investment plans). As part of PPCR's approach to monitoring and reporting, state and non-state stakeholder groups in each PPCR recipient country come together for a workshop that involves reviewing, discussing, and assessing progress on all PPCR projects under implementation in the country. This inclusive, participatory approach enriches the process, builds monitoring and reporting capacity, and improves results.

RENEWABLE ENERGY INTEGRATION PROGRAM

The Renewable Energy Integration (REI) Program will help low- and middle-income countries develop more flexible and resilient energy systems through solutions that can accelerate the uptake of the best combinations of technologies to help in the following areas:

- Absorb new sources of intermittent renewable energy;
- Manage advanced grids;
- Balance different infrastructural requirements; and
- Improve overall energy systems operation.

How it works

The program works through national and regional investment plans that address the technical, policy, and market barriers preventing the further penetration of renewable energy into the grid. It promotes specific investments in enabling technologies, infrastructure, or business models that may demonstrate the benefits of such an approach in developing countries. In addition, a dedicated private-sector window may allow for investments in countries or regions where the regulatory framework and market structure support direct investments in flexibility and innovations.

Activities that may be funded under this program are presented below:

- Scaling up technologies that enable renewable energy, such as storage solutions, grid management, and green fuels;
- Enhancing infrastructure to be renewable energy-ready through smart grids and grid interconnections;
- Supporting renewable-energy innovation, for example, by empowering consumers to contribute actively to demand-side management; along with
- Enhancing system and market design and operation through regulatory change and procedural innovation.

The program provides technical assistance to facilitate policy-level activities at the sectoral level, such as conducting market studies and developing improved procurement mechanisms. It also promotes innovative market and system design and operations, such as advanced weather systems and net billing schemes.

SCALING UP RENEWABLE ENERGY PROGRAM IN LOW INCOME COUNTRIES

The Scaling Up Renewable Energy Program in Low Income Countries (SREP) aims to enable the world's poorest countries to foster transformational change and pursue low-carbon energy pathways. It seeks to increase overall energy access for the populations of partner countries, deliver economic uplift, reduce reliance on fossil fuels, and minimize greenhouse gas emissions.

How it works

This program demonstrates the economic, social, and environmental viability of renewable energy, by supporting scaled-up interventions in solar and geothermal power, along with mini-grids, among others. A programmatic approach is needed that builds on existing policies, priorities, and energy initiatives. This involves working with country partners to agree and act on tailored objectives, as well as securing blended financing from multiple sources to enable renewable energy objectives.

MEASURING SUCCESS

SREP tracks progress on the supply of renewable energy produced; people and businesses with improved access to clean energy; installed renewable energy capacity; and co-financing mobilized from public and private sector entities. SREP projects also report on other co-benefits, such as gender impact and greenhouse gas (GHG) emissions reduced or avoided. The multilateral development banks (MDBs) are responsible for collecting, aggregating, and reporting data on these indicators annually for all SREP-funded projects under implementation.

SMART CITIES PROGRAM

Will help countries undergoing challenges from rapid urbanization to support their newly emerging cities, while they are still in development, by ensuring that their growth is managed in climate-smart, green, inclusive, and sustainable ways.

TECHNICAL ASSISTANCE FACILITY

The CIF's Technical Assistance Facility (TAF) aims to support and empower developing countries to create the enabling conditions that will help them move towards a green future. It helps mobilize resources and de-risks the sustainable energy sector by funding early-stage activities to create a strong foundation for renewable energy and energy efficient solutions. This will also incentivize long term investors from the public and private sectors to invest in clean energy in developing regions.

The scope of activities under TAF are tailored to the specific technical needs of the partner country and are designed to attract and accelerate clean energy investments. They include

critical developmental tasks such as strengthening of a country's regulatory and policy frameworks, building local institutional and human capacities, and designing innovative financing instruments and business models to optimize the investment environment.

How it works

TAF focuses on several areas including power generation, systems integration, and energy efficiency (in industry and buildings) in countries with the most significant mitigation potential.

Non-lending activities are also supported, such as building technical and institutional capacities to help countries develop their climate resilient pathways, alongside lending activities which invest in project preparation activities or project specific assessments that are critical to getting clean energy projects off the ground, e.g., green jobs assessments, planning for just transitions, climate-risk vulnerability, adaptation, mitigation analyses, etc.

Following the Covid pandemic, a special second track for funding was developed focused on mobilizing funds to support developing countries make a green and resilient recovery. This led to the development of a portfolio of 40 projects to be implemented in over 50 countries across the globe. These projects straddled multiple areas ranging from climate adaptation efforts, to incorporating just energy transitions, creation of green jobs and markets, clean cooking, green hydrogen, power system resilience, e-mobility, among others.

TAF deploys a partnership-based delivery model. This Partner Network approach pools valuable and extensive practitioner knowledge and experience from a range of influential partners and allies to overcome barriers in the preliminary stages for clean energy transitions. The International Energy Agency (IEA), Green Climate Fund (GCF), the Organization for Economic Cooperation & Development (OECD), Bloomberg NEF, Climate Policy Initiative (CPI), and The Energy & Resources Institute (TERI) are amongst the active partners in TAF.

This wide range of expertise enables TAF to ensure efficient use of resources, avoid duplication, enhance the delivery of grassroots in-country activities, and proliferate collaborative opportunities to enhance the mitigation ambitions of beneficiaries. Its effectiveness is further amplified by the strong participation and leveraging of private sector actors such as investors, developers, corporations, and financial institutes, at early stages.

12. World Bank Group

The Bank Group has a clear role to play in supporting our client countries so that they are prepared for the low-carbon, resilient transition, enabling them to build climate-smart economies that are green, resilient and inclusive.

Strategy:

The World Bank Group is the world's largest financier of climate action in developing countries delivering a record \$38.6 billion in climate finance in FY23—which covers July 1, 2022, to June 30, 2023—supporting efforts to end poverty on a livable planet.

We are also aligning our financing flows with the Paris Agreement, which effectively mainstreams climate into everything we do.

We help countries address climate and development needs together through at-scale policy support that is tailored to client needs:

supporting the implementation of Nationally Determined Contributions and Long-Term Strategies (NDCs and LTSs);

and advocating for policy reforms and dialogue to support climate action and also make the private sector central to climate-friendly development.

We undertake cutting edge analytics, including our Country Climate and Development Reports (CCDRs), with over 45 published to date.

Since 2008, the World Bank issued approximately \$19 billion equivalent in Green Bonds through over 220 bonds in 28 currencies.

And we are supporting nature-based solutions such as forest conservation and restoration, protecting watersheds and habitats, reducing the risk of natural disasters, and protecting livelihoods. The World Bank currently has over \$14 billion active investments in environment, natural resources, and the ocean.

At COP28, the World Bank set five ambitious targets that taken together—and scaled further—could have a very real impact in the fight against climate change. They include:

First, an ambitious goal to devote 45 percent of our annual financing to climate by 2025 — around \$9 billion more than the original target of 35 percent. This new goal makes certain that IBRD and IDA resources are deployed equally for mitigation and adaptation.

Second, over the next 18 months, as part of a blueprint for methane reduction, we will help launch 15 national programs that aim to slash methane emissions across rice production, livestock operations, and waste management.

Third, 600 million Africans are currently without power. We are launching a new energy program that aims to bring renewable power to 100 million people in seven years. We've tested the approach and are scaling it with \$5 billion of IDA financing and \$10 billion of public and private funds.

Fourth, the first high-integrity carbon credits will begin to hit the market—potentially delivering 24 million credits before 2025. Ultimately, these credits have the potential to transfer billions of dollars to communities from companies and governments.

Fifth, we are significantly expanding our crisis toolkit in several ways: Broadening the scope of our Climate Resilient Debt Clauses to cover all existing loans for the most vulnerable, offering a pause on not only the principal but also the interest payments, and enabling fees to be covered by concessional resources, so that others can help offset the costs.

Results:

The World Bank Group delivered a record \$38.6 billion in climate finance in fiscal year 2023 supporting efforts to end poverty on a livable planet.

- Energy

In Ethiopia, the National Electrification Plan focuses on “last-mile service delivery” for households, schools and local health centers, with an emphasis on reliable and affordable access for all. The Bank is currently supporting the National Plan through a \$375 million IDA credit that will help bring electricity to one million households, and pilot new approaches for off-grid electrification. In March 2019, Ethiopia launched an updated version of the Plan (NEP 2.0), which includes a detailed framework for the integration of off-grid technologies with grid connectivity to achieve universal access by 2025.

The World Bank’s support to clean cooking totals more than \$400 million in 21 countries—mainly in Africa and South Asia—helping 20 million people access cleaner and more efficient cooking and heating solutions.

As part of a \$775 million partnership, the \$8.5 billion Climate Investment Funds is helping India expand its rooftop solar industry. In less than a year, the program has enabled close to 500 MW of new rooftop solar capacity. It is estimated that rooftop solar alone can save almost 2 billion tons of CO2 emissions and lead to nearly 50,000 jobs.

The Bank’s Carbon Initiative for Development (Ci-Dev) has emission reduction purchase agreements (ERPAs) for thirteen programs—twelve in Sub-Saharan Africa and one in Asia. Of these, six have had issuances of Certified Emission Reductions (CERs)—representing almost half of the portfolio. In total they have achieved more than 360,000 tons of CO2 reductions through clean energy access programs ranging from low-carbon cooking programs in Lao PDR, Ethiopia and Madagascar, biogas programs in Burkina Faso and Kenya, to solar energy and rural electrification programs in Ethiopia, Kenya and Uganda.

In Uzbekistan, IFC committed a \$17.5 million loan and a \$17.5 million blended finance for the Navoi Scaling Solar project, a 100 MW solar PV plant. This is Uzbekistan’s first private sector infrastructure financing. IFC advised the government on the competitive bidding process, which resulted in the country procuring power at \$2.679 cents / kWh for 25 years.

- Adaptation and Resilience

The Bank has committed to ensuring that half of our climate finance supports adaptation and resilience.

The World Bank has scaled up analytical work and metrics related to adaptation and resilience. The Resilience Rating System, being piloted in 20 IDA19 projects across all regions and covering a range of sectors, is helping us assess resilience across two dimensions: the resilience of a project’s design (whether it is resilient to risks from climate change and natural hazards); and the resilience gained through project outcomes (whether it builds the resilience of people and of the wider system). Based on the pilot experience, the method is updated and will be applied to IDA20 projects to support better resilience impacts of investment projects.

The Adaptation Principles report lays out 6 universal principles (along with 26 actions, 12 toolboxes and 111 indicators) to help policymakers plan for adaptation.

Some highlights of work underway with support from Global Facility for Disaster Reduction

and Recovery (GFDRR) include:

Supporting the historically conflict-torn Bangsamoro region of the Philippines in adopting a conflict-sensitive approach to climate and disaster resilience. Already, 67 officials, nearly half of whom were female, have received in-depth training on how to design conflict-sensitive disaster recovery frameworks.

Working with local authorities in Bucharest to ensure that the Romanian capital's emergency preparedness and response system is fully inclusive and does not leave people living with disabilities behind. Eighty percent of participants found that trainings on disability-inclusive emergency preparedness and response supported by the team improved their understanding of the specific vulnerabilities and needs of persons living with disabilities, while 64 percent said that they would be likely to apply knowledge and skills from the trainings in their work.

The report, "Unlivable: What the Urban Heat Island Effect Means for East Asia's Cities" provides a deep dive assessment of the urban heat island effect in East Asia's cities and how it is interacting with climate change. The report also provides recommendations for how the leaders of these cities can significantly mitigate the impact of this effect on local temperatures while also further promoting greater adaptation to extreme urban temperatures.

- Transport

The Bank's transport portfolio has been rapidly shifting toward climate-smart projects: Since FY17, the Transport global practice has committed \$14.86 bn to low-carbon and climate-resilient solutions through 177 projects. All FY23 projects included climate co-benefits.

In Dakar, Senegal, the Bank is working with partners to help develop a new transport system aimed at moving 300,000 passengers per day. The Dakar Bus Rapid Transit (BRT) Pilot Project will improve travel conditions and reduce by half the average rush hour in-vehicle travel time by public transport. Senegal's NDC lists the BRT as central to reducing the country's transport-related carbon emissions.

In Bangladesh, the Bank supported the development of the country's inland waterway transport sector. Through a pilot exercise some of Bangladesh's cargo transport along the Dhaka-Chittagong corridor is shifting to inland waterways which would reduce emissions in line with the country's NDC, lower transaction costs for suppliers and improve the reliability and efficiency of freight transport in the country.

Due to their size and location, Small Island Developing States are disproportionately affected by climate change. In a bid to enhance their overall climate resilience, the Bank has substantially increased assistance to the transport sector in many of these countries, with a clear focus on adaptation. For instance, the Pacific Climate-Resilient Transport Program is currently under implementation in Samoa, Tonga, Tuvalu, and Vanuatu, with more countries expected to join in a second phase.

IFC partnered with ALD, a leading global vehicle leasing company and a subsidiary of Société Générale, to reduce carbon emissions in transport by accelerating the adoption and penetration of green vehicles in emerging markets. The US\$400 million IFC investment will help ALD grow its green fleet, a combination of hybrid, plug-in hybrid and battery electric vehicles, in seven countries – Türkiye, Mexico, India, Serbia, Romania, Bulgaria, and Croatia. The financing, which was intermediated by Société Générale on behalf of ALD, is expected to

add 15,000 green vehicles with the potential to reduce carbon emissions by 22,180 tons a year across the target countries by 2026.

- Food and Agriculture

Climate change and agriculture are closely linked. The fast pace of climate change is challenging farmers' ability to adapt and cutting into their livelihoods. On the other hand, agriculture is also a major part of the climate problem. Together with forestry and land use change, it generates up to 29% of total GHG emissions.

We are supporting a \$125 million project in Jordan which aims to strengthen the development the agriculture sector by enhancing its climate resilience, increasing competitiveness and inclusion, and ensuring medium- to long-term food security.

In Bolivia, we are supporting a \$300 million project that will contribute to increasing food security, market access and the adoption of climate-smart agricultural practices.

The \$2.3 billion Food Systems Resilience Program for Eastern and Southern Africa helps countries in Eastern and Southern Africa increase the resilience of the region's food systems and ability to tackle growing food insecurity. The program will enhance inter-agency food crisis response also boost medium- and long-term efforts for resilient agricultural production, sustainable development of natural resources, expanded market access, and a greater focus on food systems resilience in policymaking.

A project is promoting sustainable family farming in rural areas of Piauí, a state in Northeastern Brazil, with a focus on helping producers boost their incomes and increase their climate resilience. Approximately 24,000 family farmers are expected to directly benefit from this initiative, especially indigenous peoples.

The World Bank continues to support the Accelerating Impacts of CGIAR Climate Research for Africa project in advancing climate-smart agriculture technologies and addressing critical gaps in climate resilience and food security in Ethiopia, Ghana, Kenya, Mali, Senegal, and Zambia.

- Forests and Landscapes

The Forest Carbon Partnership Facility (FCPF) has now signed 15 Emissions Reduction Payment Agreements (ERPAs) with a total contract value of over \$720m, committing to reduce emissions through reforestation programs by more than 145 million tons of carbon to 2025. The 15 FCPF countries are: Chile, Costa Rica, Côte d'Ivoire, Dominican Republic, DRC, Fiji, Ghana, Guatemala, Indonesia, Laos PDR, Madagascar, Mozambique, Nepal, Republic of Congo and Vietnam.

Results-based payments are now flowing from the FCPF: Mozambique, Costa Rica and Ghana are among those that have now received their first payments from the transaction of jurisdictional REDD+ certified emission reductions. These milestones signal that reductions in greenhouse gas emissions generated from forest conservation and other sustainable land uses have a central place in international carbon markets.

For decades, illegal hunting and overfishing in Colombia's Orinoquia region contributed to significant biodiversity loss. But leveraging financing opportunities can support new economic options for local communities, while also helping to preserve the enormous biodiversity,

carbon and ecosystem value of the region. The World Bank's BioCarbon Fund Initiative for Sustainable Forest Landscapes aims to support these efforts by building an enabling environment in Orinoquia for economic growth in harmony with environmental conservation. In Peru, the Dedicated Grant Mechanism (DGM) project has supported Improvement of forest management in indigenous communities. The project has financed activities to reforest or improve the natural regeneration of forests, traditional agriculture, use and conservation of indigenous medicine, agroforestry to improve biodiversity and indigenous landscape management practices in Loreto, San Martin, Atalya, Madre de Dios and Ucayali. In addition, the project has supported the demarcation of 48 native communities; titled 42,280 beneficiaries and 212,486 hectares of native community lands in high threat areas, and facilitated the recognition process of 217 native communities and their registration the public registry.

IFC has published first-to-the-market Biodiversity Finance Guidelines – a practical, hands-on reference for investors interested in entering the biodiversity finance space. The Guide provides a clear classification of transactions that fit the definition of biodiversity finance, adding clarity and transparency to the heretofore vague regulatory environment.

- Cities

As the world continues to urbanize, how cities are built and managed – especially over these coming two decades - will determine the trajectory of GHG emissions and safeguard development gains for future generations. In FY23 alone the World Bank as a whole approved around US\$8.13 billion toward 40 green and resilient investment operations in cities across 30 developing countries.

Key programs in support of the Bank's work on cities and climate change include:

The City Climate Finance Gap Fund (Gap Fund) was launched in 2020 to support cities turn their climate ambitions into projects ready to be financed and implemented. The Gap Fund focuses its support on the critical early stage of project identification and preparation. As of December 2023 it has already supported more than 200 cities across 70 countries with the development of city-level climate strategies and the identification and development of urban climate investments.

The City Resilience Program (CRP) helps cities become more resilient to the adverse impacts of disasters and climate change. The program supports risk-informed urban planning, identifies investments that enhance city resilience, and facilitates access to financing to ensure that those investments materialize. This integrated approach helps create the conditions for equitable and sustainable economic growth in a context of rapid urbanization and increasing urban climate and disaster risk. To date, the program has worked with 253 cities in over 80 countries around the world.

Urban resilience goes hand in hand with environmental sustainability. The World Bank's Global Platform for Sustainable Cities is a partnership and knowledge platform to promote integrated solutions and cutting-edge knowledge for cities seeking to improve their resilience and overall urban sustainability. The Platform includes 28 cities across 11 countries that have received \$151 million from the Global Environment Facility and leveraged \$2.4 billion in project co-financing.

- Water and Waste

In Brazil, IFC signed a \$56 million green and sustainability linked A loan to Companhia Riograndense de Saneamento (Corsan) a state-owned water utility in June 2021. This is IFC's first sustainability-linked loan in infrastructure in Latin America and second in the water sector globally. The investment will support Corsan's water loss program and energy efficiency improvement efforts through network replacement and substitution of obsolete electric pumps and hydrometers. IFC has also worked with SABESP, one of the largest water treatment and sanitation companies in Brazil, to reduce pollution and improve water access and quality in communities alongside the Pinheiros River.

IFC committed a \$30 million loan (in local currency equivalent) to IZSU, the water utility of the City of Izmir, Turkey, in order to upgrade its water treatment and supply Infrastructure. This investment is the first sustainability-linked loan for IFC and first long term local currency loan to a Turkish municipal client from an international lender. The proceeds will be used for eight sub-projects in three areas, network pipeline construction, greenfield potable water treatment plant, and replacing and rehabilitating the water supply trunk. This will reduce wastewater collected in tanks, provide better quality drinking water, and improve water supply reliability. In August 2020, IFC committed a \$60 million investment in ALBA Asia Group which is a pan-Asia waste management and recycling company. The company focuses on waste treatment, bio waste management, plastics recycling, and smart city waste solutions. IFC's investment will support eight waste and bio waste projects in China, mostly in frontier regions. It supports the WBG's focus on promoting circular economy business models, in particular to help enhance environmentally sustainable waste management in the region.

In Belgrade, Serbia, IFC and partners provided a €260 million package to transform the Vinča landfill into a new sanitary landfill, a waste-to-energy plant and a construction waste recycling unit. The project helps address the challenge of municipal waste management, curb air and water pollution, and contribute to the city's electricity grids for the next 30 years.

- Innovative Partnerships

The Coalition of Finance Ministers for Climate Action is a global initiative that recognizes the unique capacity of Finance Ministers to address climate change and believes that progress can be accelerated through collective action and engagement.

The initiative was launched in April 2019 at the WBG and IMF Spring Meetings. The Coalition now has over 90 member countries and is supported by 25 Institutional Partners. Member countries represent about 40% of global carbon emissions and 66% of global GDP.

Coalition Members work together on the development of economic and financial policies that support low-carbon and climate-resilient growth. Its work is organized around the six Helsinki Principles that all member countries endorse upon joining the Coalition.

Innovate4Climate is the World Bank Group's annual global conference on climate finance, carbon markets and climate investment. It brings together national and corporate leaders to foster the exchange of knowledge and best practices and promote investments in proven transformative climate-smart solutions.

The eight editions will be hosted in Berlin, Germany from September 10 – 12, 2024. Through

its 3-day program, the conference will focus on carbon pricing and carbon markets.

The Partnership for Market Implementation assists countries to design, pilot, and implement carbon pricing instruments aligned with their development priorities. With the goal of putting carbon pricing programs in place in at least 30 countries by 2025, the Partnership is already rolling out support for more than 25 countries. This support includes emissions trading systems, carbon taxes, carbon crediting mechanisms, as well as strategies to access the next generation of international carbon markets.

The Partnership also focuses on delivering in-country capacity building and supporting the global carbon market architecture through strategic advice on carbon market strategies, institutional strengthening, policy design and infrastructure development.

The Partnership offers robust practice guidance on carbon pricing policy and market development through events, workshops, and reports, including the World Bank's Annual Report on State and Trends of Carbon Pricing and the Carbon Pricing Dashboard.

The Climate Warehouse program prototypes, tests, and develops digital infrastructure to foster greater transparency, trust, and integrity in the carbon markets. The Bank's Climate Warehouse program is working with public and private sector partners to build an end-to-end digital ecosystem and underpin the development of carbon markets. This initiative builds and pilots modular components of the ecosystem needed to digitize the generation, reporting, and transfer of carbon assets.

Examples include the metadata platform to connect, harmonize, and aggregate carbon registry data (Climate Action Data Trust), digital MRV systems, national carbon registries, tokenization instruments, and a one-stop resource platform that enhances knowledge-sharing and capacity-building.

This program also houses the secretariat of the Digital for Climate (D4C) Working Group – a collaborative initiative by WB, UNFCCC, UNDP, EBRD and ESA and other stakeholders (e.g. IETA, CAD Trust) that aim to build modular and interoperable components for end-to-end digital ecosystem for carbon markets.

The Connect4Climate (C4C) program is a World Bank Group Multi-Donor Trust Fund that draws on the knowledge and convening power of international institutions to develop innovative climate communication and advocacy strategies.

Since its inception in 2009, C4C has been known for its ability to enhance climate consciousness among diverse audiences; build cross-sectoral and multilateral coalitions to advance international climate goals; and encourage ambitious climate action among the public, the private sector and policymakers. In 2024, as part of the G7 Ministerial Meeting on Climate, Energy and Environment, C4C will help organize a "Planet Week" in Turin. In partnership with the Italian Ministry of Environment and Energy Security, this week-long series of cultural events will engage the public to advance climate action and solidarity.

By collaborating with leaders from across the international community and creative economy, C4C works to catalyze a global climate movement with youth at the center. As a founding partner of the Max Thabiso Edkins Climate Ambassador Program, C4C supports a new global cohort of young people every year in broadening their climate knowledge, developing novel solutions, strengthening their leadership skills, and launching campaigns in their local communities. C4C is also key partner for the Italian Government's Youth4Climate platform, which has been engaging young climate leaders since Pre-COP26 to drive ambition, power

action, and spark solutions.

Focus Areas

- **Adaptation and Resilience**

The World Bank is helping countries adapt and increase their capacity to weather climate shocks, with projects supporting early warning systems, disaster response, civic awareness, strengthening buildings, and post-disaster recovery. That effort is even more critical as countries face the health and economic impacts of the coronavirus pandemic.

1. Adaptation and resilience are inextricably linked to development outcomes.

Good adaptation can deliver good development outcomes, such as safer, better-off communities or hardier crops. At the same time, securing good development requires effective adaptation measures. Investing in adaptation and resilience is not about investing in roads or bridges or powerplants alone. It is about investing in people, businesses, and communities facing the impacts of a changing climate. It is about smarter development that can deliver health, education and livelihoods.

In Kampala, for instance, even just moderate floods block enough streets to make it impossible for over a third of people to reach a hospital during a medical emergency. Disruptions caused by natural hazards, as well as poor maintenance and mismanagement of infrastructure, cost households and firms at least \$390 billion a year in low- and middle-income countries. These impacts range from businesses unable to keep factories running or process payments, to people unable to go to work, send children to school, or get to a hospital.

Investments to improve the resilience of infrastructure and boost adaptation are both sound and profitable: the overall net benefits of investing in resilient infrastructure in developing countries could amount to \$4.2 trillion over the lifetime of new infrastructure – a \$4 benefit for each dollar invested in resilience. In Indonesia, a two-decade-old program supported by the World Bank and the Global Environment Facility has restored and improved the management of coral reefs. Today, coral reefs deliver over \$3.1 billion in value annually to Indonesia through tourism alone, not including their natural protection against coastal erosion and flooding. Indonesia has seen 17 percent growth in coral reef cover in six out of seven districts, the return of rare species, a 20 percent increase in the incomes of local people, and growing awareness of the importance of ocean health.

2. The Bank Group is ramping up support for countries' efforts to adapt and build resilience to a changing climate.

The World Bank Group launched a first-of-its-kind Action Plan on Climate Change Adaptation and Resilience. The Action Plan commits to doubling adaptation financing, ensuring that the Bank's adaptation financing will equal its financing for mitigation – reductions in greenhouse gas emissions. In addition to boosting direct finance, the plan will also support countries' efforts to systematically manage climate risks at every phase of policy planning, investment design, and implementation.

Through the Action Plan, the Bank Group will help client countries on several fronts, for instance, on:

- i. Disaster risk management, through higher quality forecasts, early warning systems, and climate information services to better prepare 250 million people in at least 30 countries for climate risks
- ii. Water security, through climate-informed management plans for 100 river basins, and improved flood and drought risk management infrastructure for at least 15 million people
- iii. Coastal resilience, by helping at least 20 countries become more resilient to climate-related shocks and stressors
- iv. Human development, by helping at least 20 countries adopt more climate-responsive social protection systems
- v. Financial protection, by improving the ability of at least 20 countries to respond early to, and recover faster from, climate and disaster shocks
- vi. Forests, by avoiding deforestation, promoting reforestation or sustainable forest management for 120 million hectares of forest in 50 countries.

3. The Bank Group is leading on innovative approaches that will boost adaptation and resilience outcomes in countries.

The Bank Group is actively exploring how to go beyond measuring whether a single investment is resilient, to also evaluating whether our investments build wider, more systemic resilience. The Group is developing a new rating system to create incentives for, and improve the tracking of, global progress on adaptation and resilience. The new system will be rolled out to projects in relevant sectors in our Fiscal Year 2021 (July 2020- June 2021). The rating system will help countries identify which activities most effectively build resilience to climate change and should be prioritized.

Having a clear and simple metric will also enable more private sector investment for adaptation and resilience. Through IFC, we are analyzing climate risk and adaptation options for projects in different sectors and regions. For example, a study of the Khimti 1 run-of-the-river hydroelectric power development in Nepal analyzes how variability in climate conditions, along with future climate change, could affect the plant's operations and have impacts for local communities, and recommends options for reducing risk.

● Climate Finance

The Delhi Metro Network meets almost 60% of its daytime demand with solar energy, generated by the Ultra Mega Solar Park in Rewa, Madhya Pradesh, developed with support from the World Bank Group and the Climate Investment Funds.

Countries around the world are expanding energy access, improving energy efficiency, making electricity more reliable, and reducing emissions while protecting people and property from climate change-related impacts – actions that can help build critical resilience and shape a sustainable recovery from the coronavirus pandemic.

1. The World Bank Group is ramping up climate finance and impact.

The Bank Group is already the largest multilateral funder of climate investments in developing countries. In 2016, the Bank Group set ambitious targets to accelerate climate action and help countries meet their climate goals. Under the Climate Change Action Plan for 2016-2020, the Group laid out a plan to increase climate finance from 21% to 28 % of the Bank's total budget and has surpassed these targets for the second year in a row: providing a record annual amount of \$20.5 billion in climate-related financing in fiscal year 2018, and \$17.8 billion in fiscal year 2019.

The Bank Group is stepping up climate investments for the future. Our new Climate Change Action Plan for 2021-2025, taking effect in July 2020, has a strong focus on increasing adaptation; leveraging private sector finance, and supporting increased systemic climate action at the country level, including by supporting Finance Ministers to share best practices and experiences on macro, fiscal, and public financial management policies for low-carbon and climate-resilient growth.

2. Private sector investment is critical to accelerate progress on climate change.

In addition to direct financing, the Bank Group is also responding to country demand by mobilizing private investment and helping open low-carbon markets where they didn't previously exist. Private sector investment in low-carbon development is accelerating rapidly and already has reached over \$1 trillion annually. To mobilize more private finance for development, the Bank Group is working closely with countries to create markets and de-risk investments.

For instance, the Bank Group's \$1 billion program to accelerate investments in battery storage aims to adapt and develop solutions to integrate wind and solar energy for round-the-clock power. The program's goal is to finance 17.5 gigawatt hours (GWh) of battery storage by 2025 – more than triple the 4-5 GWh currently installed in all developing countries and it is expected to mobilize another \$4 billion in concessional climate financing and public and private investments.

In 2016, Egypt launched a Bank Group-supported program designed to reform the power sector and encourage investment from private companies. Six million solar panels later, the Benban Solar Park is the country's first photovoltaic solar park stretching over 37-square kilometers. When fully operational, it will generate over 2,000 megawatts of power, employ 4,000 people, and avoid 2 million tons of greenhouse gas emissions a year, the equivalent of taking about 400,000 cars off the road. IFC spearheaded the financing package, marshalling \$653 million in loans from a consortium of nine international banks. The World Bank supported reforms to Egypt's electricity sector and provided the country with a \$3 billion loan, while the Multilateral Investment and Guarantee Agency (MIGA), provided \$210 million worth of political risk insurance to encourage private lenders to invest.

Other examples include the Climate Investment Funds which have enabled \$60 billion in climate finance through partnerships with the Bank Group, other multilateral investment

banks, and the private sector to advance clean technology, energy access, and sustainable forestry, and build resilience to climate change in 72 countries. Green bonds issued by the World Bank and IFC have also raised \$23 billion from institutional and retail investors for projects that help lower global carbon emissions. And to further spur the exchange of ideas, the Bank Group hosts the Innovate4Climate global conference bringing leaders from government, industry, business, finance, and technology together to envision the next generation of climate-smart solutions with the potential to transform the global economy.

3. Climate finance brings benefits to vulnerable communities and supports sustainable landscapes.

Bank initiatives using carbon finance – investments in programs that reduce or avoid greenhouse gas emissions – have made \$2 billion in emission reduction payments since the first carbon fund was launched in 1999. The effort includes work to reduce greenhouse gas emissions from the forest and land-use sectors across more than 50 countries. In Ethiopia, for example, the Biocarbon Fund Initiative for Sustainable Forest Landscapes supports the reforestation of 9,000 hectares in Oromia by 2022. The program contributes to a massive reforestation effort by the government and is seen as critical to preserving one of the last two relatively intact forests in mountainous areas of the country.

Carbon finance also provides incentives for communities to manage their forests sustainably. In Ghana, for instance, the Forest Carbon Partnership Facility will reward community efforts to reduce emissions from deforestation and forest degradation, which can also enhance income and livelihood opportunities for farmers and forest-dependent communities. The first-of-its-kind program aims to reduce carbon emissions by at least 10 million tons of CO₂ by 2025. It will also encourage climate-smart cocoa production on almost 6 million hectares of the West Africa Guinean Forest, a biodiversity hotspot.

- **Ambitious Climate Action**

A solar power plant in the Moroccan desert is so big it can be seen from space. The Noor Concentrated Solar Power Complex is the world's largest development of its kind. Financed by the Climate Investment Funds, the World Bank Group, and other partners, the solar complex supplies clean energy to 2 million people. It is the cornerstone of Morocco's ambitious plan to meet 42% of the country's energy needs with renewables by the end of 2020.

Countries are moving to reduce greenhouse gas emissions, adapt to climate change, and develop sustainably. They are investing in renewable energy, low-carbon transportation, and the preservation of vital ecosystems. They are changing their agricultural practices and building social protection systems for the vulnerable, among other measures. These efforts could be even more critical to support a sustainable recovery from the coronavirus pandemic.

But the world as a whole is not yet on track to avoid more dangerous impacts of climate change. Here are three ways the World Bank Group and partners are helping countries deliver ambitious climate action.

1. The World Bank Group is helping countries simultaneously address climate change and development challenges.

Across sectors, the potential for double wins is significant. For instance, investments in low-carbon, climate-resilient development can help countries unlock human capital gains and, reciprocally, a stronger human capital base can help communities adapt to a changing climate.

While responding to drought in Ethiopia, for example, the Bank supported a large social safety net program to boost food security among the most vulnerable. “Adaptive safety nets” like these are an efficient way to help people after a major shock: they use existing social protection schemes and can quickly expand, increasing the number of beneficiaries and the sums transferred to them. During the 2016 El Niño-influenced drought in the Horn of Africa, Ethiopia’s safety net was expanded to temporarily cover 18.5 million people – 20 percent of the population – to avoid a famine and protect them from falling into poverty. The program also provides regular cash or food to people in exchange for land restoration work, irrigation, and agroforestry, thereby also boosting eco-systems and agriculture.

In fiscal year 2019, for instance, climate “co-benefits” were achieved in a waste-to-energy project in Belgrade, Serbia, that will clean up one of Europe’s largest uncontrolled landfills and construct a new, sustainable waste-management complex to help reduce pollution and mitigate climate change. The project will enable the use of municipal waste and landfill gas to generate renewable heat and electricity. The new facilities will provide electricity equivalent to the total power consumption for approximately 30,000 households during winter, replacing fossil fuels and helping to reduce greenhouse gas emissions.

2. The Bank Group is committed to helping our clients deliver on the goals of the Paris Agreement.

Climate pledges made ahead of the landmark 2015 Paris Agreement, known as Nationally Determined Contributions, or NDCs, represent an estimated \$23 trillion of potential investment in sustainable development by 2030 for 21 emerging market economies alone.

Through the NDC Support Facility the Bank Group is working with countries around the world to help unlock these climate-smart opportunities, ranging from support that expands low-carbon transport to innovative GIS mapping of climate risk. In Vietnam, an NDC “Deep Dive” is laying the groundwork for policies and investments to advance climate goals through a whole-of-government approach in four critical areas: low carbon energy, low carbon and resilient transport, climate-resilient landscapes, green and resilient urban development. In Mali, adaptation efforts got a boost through the development of a climate-smart agriculture investment plan. Developing the plan helped to bring on board a wide range of stakeholders from public, private and civil society; improved policymaking and private sector investment in projects; and helped forge strong partnerships across sectors and ministries. Similar investment plans have also been developed in Morocco and Cote d’Ivoire.

3. The Bank Group is committed to addressing the climate challenge upstream.

The Bank is working with Ministers of Finance, Budgeting and Planning, through the Coalition

of Finance Ministers for Climate Action, to help countries design and implement climate policies, coordinate efforts, and bring climate considerations into the mainstream of economic policy. Established in April 2019, under the joint leadership of Chile and Finland, the Coalition now comprises almost 60 countries accounting for nearly a third of global economic output.

Under the coalition's Santiago Action Plan, Finance Ministers agreed to help countries mobilize and align the finance needed to implement their national climate action plans and meet the ambitious targets set in their NDCs.

Côte d'Ivoire, for example, aims to reduce its greenhouse-gas emissions by 28 percent and increase renewable energy to 42 percent by 2030. With help from the NDC Support Facility, the IFC and the government developed a roadmap to unlock private investment and meet the goal. Côte d'Ivoire is also supported through the Bank Group's Scaling Solar Program – a “one stop shop” that aims to make privately funded grid-connected solar projects operational within two years and at competitive tariffs. Scaling Solar will help the country develop two solar plants generating a total of 60 megawatts that will power thousands of homes and businesses, bringing Cote d'Ivoire closer to its target of generating 400 megawatts of solar power by 2030.

13. Global Environment Facility (GEF)

The GEF is an operational entity of the financial mechanism of the Convention that provides financial support to the activities and projects of developing country Parties. The COP regularly provides guidance to the GEF. The GEF, as an entity entrusted with the operation of the Financial Mechanism of the Convention, also serves the Paris Agreement.

14. Special Climate Change Fund (SCCF)

The Special Climate Change Fund (SCCF) was established to finance activities, programmes and measures relating to climate change, that are complementary to those supported by other funding mechanism for the implementation of the Convention. The Global Environment Facility (GEF) has been entrusted to operate the SCCF. The SCCF, administered by the GEF, also serves the Paris Agreement.

15. Least Developed Countries Fund (LDCF)

The COP established the Least Developed Countries Fund (LDCF) to support the Least Developed Country Parties (LDCs) work programme and assist LDCs carry out, inter alia, the preparation and implementation of national adaptation programmes of action (NAPAs). The Global Environment Facility (GEF) has been entrusted to operate the LDCF. The LDCF, administered by the GEF, also serves the Paris Agreement.

Some other international organizations working in the fight

against climate change

Adaptation Fund

Finances projects and programs that help vulnerable communities in developing countries adapt to climate change.

BIS - Climate Change and Green Finance

Gathers the various strands of work produced by the BIS, its committees and hosted associations, as well as its stakeholders on topics relating to climate change, green finance and sustainability.

C40 Cities

C40 is a network of the world's megacities committed to addressing climate change.

CDP

CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

Carbon Tracker

Independent financial think tank that carries out in-depth analysis on the impact of the energy transition on capital markets and the potential investment in high-cost, carbon-intensive fossil fuels.

Center for Climate and Energy Solutions

Independent, nonpartisan, nonprofit organization working to forge practical solutions to climate change

Climate Bonds Initiative

An international organization working to mobilize global capital for climate action. Developer of the Climate Bonds Standard and Certification Scheme.

Climate Investment Coalition

Works to accelerate climate action and a green recovery to help meet the goals of the Paris Agreement and the net-zero transition by mobilising investments for clean energy and climate by 2030.

Climate Investment Funds

Accelerates climate action by empowering transformations in clean technology, energy access, climate resilience, and sustainable forests in developing and middle income countries.

Coalition for Rainforest Nations

International organization of over 50 rainforest nations. Created the global rainforest conservation mechanism REDD+ which now protects 90% of the world's tropical rainforests.

Environmental Defense Fund

Nonprofit environmental advocacy group.

FAO - Climate Change

Supports countries to both mitigate and adapt to the effects of climate change through a wide range of research based and practical programs and projects.

Glasgow Financial Alliance for Net Zero (GFANZ)

GFANZ, chaired by Mark Carney, UN Special Envoy on Climate Action and Finance, unites over 160 firms (together responsible for assets in excess of US\$70 trillion) from the leading net zero initiatives across the financial system to accelerate the transition to net zero emissions by 2050 at the latest.

Green Climate Fund

World's largest climate fund, mandated to support developing countries raise and realize their Nationally Determined Contributions (NDC) ambitions towards low-emissions, climate-resilient pathways.

IEA

The IEA is committed to shaping a secure and sustainable energy future for all

Inside Climate News

Pulitzer Prize-winning, nonprofit, nonpartisan news organization that provides essential reporting and analysis on climate change, energy and the environment, for the public and for decision makers.

IPCC

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change.

NDC Partnership

The NDC Partnership brings together more than 200 members, including more than 115 countries, developed and developing, and more than 80 institutions to create and deliver on ambitious climate action that helps achieve the Paris Agreement and the Sustainable Development Goals (SDGs).

NGFS

The Central Banks and Supervisors Network for Greening the Financial System (NGFS) is a group of Central Banks and Supervisors willing, on a voluntary basis, to exchange experiences, share best practices, contribute to the development of environment and climate risk management in the financial sector, and to mobilize mainstream finance to support the transition toward a sustainable economy.

OMFIF Sustainable Policy Institute

A community designed to meet the policy, regulatory and investment challenges posed by

ESG factors

REDES

The Network of Regulators for Sustainable Development (REDES) aims to promote sustainable regulation and supervision among Latin American and the Caribbean countries and consolidate a regional forum to identify common challenges and facilitate the coordination of policies and initiatives in the face of the global agenda.

TCFD

The Financial Stability Board created the Task Force on Climate-related Financial Disclosures (TCFD) to improve and increase reporting of climate-related financial information.

TNFD

Taskforce on Nature-related Financial Disclosures (TNFD) will deliver a framework for organisations to report and act on evolving nature-related risks, to support a shift in global financial flows away from nature-negative outcomes and toward nature-positive outcomes.

UNDP Climate Promise

Tackling the climate crisis requires that all countries make bold pledges under the Paris Agreement to reduce emissions of the greenhouse gases (GHG) that cause global warming. The Climate Promise is our commitment to ensure that any country wishing to increase the ambition of their national climate pledge is able to do so.

United Nations Environment Programme (UNEP)

Leading global environmental authority

World Climate Foundation

An impact-oriented organization that works with inspiring leaders from government, business, financial institutions and civil society organizations to build resilience, and enabling the necessary transformation that addresses both the climate change and biodiversity crises.

World Meteorological Organization (WMO)

Specialized agency of the United Nations responsible for promoting international cooperation on atmospheric science, climatology, hydrology and geophysics.