United Nations
Climate Change

25 Years of Adaptation

under the UNFCCC

Report by the Adaptation Committee

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Abbreviations

AR4	Fourth assessment report of the IPCC
BTR	Biennial Transparency Report
CAF	Cancun Adaptation Framework
CMA	Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement
CGE	Consultative Group of Experts
COP	Conference of the Parties
CTCN	Climate Technology Centre and Network
FWG	Facilitative Working Group of the Local Communities and Indigenous Peoples Platform
GCF	Green Climate Fund
GEF	Global Environment Facility
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
LAKI	Lima Adaptation Knowledge Initiative
LDCs	Least developed countries
LDCF	Least Developed Countries Fund
LEG	Least Developed Countries Expert Group
LCIPP	Local Communities and Indigenous Peoples Platform
M&E	Monitoring and evaluation
NAPA	National Adaptation Programme of Action
NAP	National adaptation plan
NAP-GSP	National Adaptation Plan Global Support Programme
NDC	Nationally determined contribution
PCCB	Paris Committee on Capacity-Building
RCC	Regional Collaboration Centre
SCCF	Special Climate Change Fund
SCF	Standing Committee on Finance
SDGs	Sustainable Development Goals
SIDS	Small island developing States
TEC	Technology Executive Committee
TEM-A	Technical expert meeting on adaptation
TEP-A	Technical examination process on adaptation
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WIM	Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts
WMO	World Meteorological Organization

Foreword

by the Co-Chairs of the Adaptation Committee

Parties to the United Nations Framework Convention on Climate Change have long recognized the importance of preparing to face the impacts of climate change through adaptation action, and the importance of international cooperation for facilitating and accelerating this action around the world.

Established in 2010, the Adaptation Committee is the principal body under the Convention, and the United Nations system, that comprehensively addresses adaptation. The Adaptation Committee works year-round to promote enhanced action on adaptation, raising the profile of adaptation and shining a spotlight on ways for Parties and other actors to increase their adaptation ambition.

The growing urgency to adapt to the impacts of climate change has prompted significant growth in the number of institutions, bodies, mechanisms, and other instruments under the UNFCCC process that support Parties in advancing adaptation action. To offer an overview of this increasingly complex adaptation architecture, the Adaptation Committee published a report in 2013 that detailed the role of these various institutions, bodies, and mechanisms, along with the evolving adaptation priorities that gave rise to them.

This publication is an update of the 2013 report. In addition to the history outlined in the original report, this document captures the various milestones that have emerged in the years since publication, with a particular focus on the 2015 Paris Agreement and the changes that its adoption heralded for the collective effort to catalyze adaptation action.

We hope that this updated publication will equip readers to better understand the latest adaptation-related developments under the UNFCCC process, and how they fit into the broader history of how adaptation has been addressed by the international community since the Convention came into force 25 years ago. We also hope that the knowledge and insights gleaned from this report will translate into greater engagement with the adaptation-related institutions under the UNFCCC process, and, more generally, with efforts to rise to the adaptation challenge and secure a climate-resilient future.

María del Pilar Bueno
Co-Chair of the Adaptation Committee

Marianne Karlsen
Co-Chair of the Adaptation Committee

Photo: Rob Barnes – GRID-Arendal.

Introduction

With each passing year, adaptation action is more urgent than ever. Climate change induced impacts and catastrophes are sweeping across the globe, often affecting the most vulnerable communities and ecosystems. Along with rapid and extensive emissions reductions in all sectors and countries, ambitious and effective adaptation action holds the potential to open a path towards resilience and prosperity.

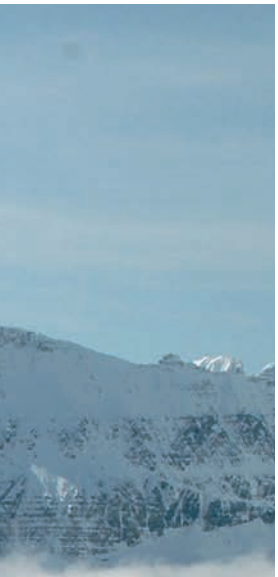
Since its entry into force in 1994, the United Nations Framework Convention on Climate Change (UNFCCC) has shone a light on the challenge of climate change and invited Parties and other stakeholders to the table to identify options for and make commitments to mitigating and adapting to its impacts. In addition to opening a political space for countries to engage and raise their ambition on adaptation, the UNFCCC has also raised awareness of adaptation and increasingly put in place institutions to provide guidance and support to countries undertaking adaptation action. Notable among these is the Adaptation Committee, which, since beginning its work in 2012, has served as the Convention's leading source of overarching technical support and guidance on adaptation action, finance, technology, and capacity-building.

This report is published by the Adaptation Committee, and updates and builds on a previous report published by the Adaptation Committee in 2013, titled *The State of Adaptation under the United Nations Framework Convention on Climate Change*.[1] As was the case with the 2013 edition, this report illustrates the landscape and history of how adaptation has been approached throughout the lifetime of the international climate change regime under the UNFCCC. It traces the path of adaptation, beginning with the birth of the Convention itself, through important milestones like the Cancun Adaptation Framework and the Paris Agreement, and offers a glimpse into the future as envisioned by the agreements governments have put in place to help safeguard the wellbeing of people and the planet.

1. See https://unfccc.int/files/adaptation/cancun_adaptation_framework/adaptation_committee/application/pdf/ac_2013_report_high_res.pdf

Photo: Erich Peitzsch – USGS.

The Adaptation Challenge



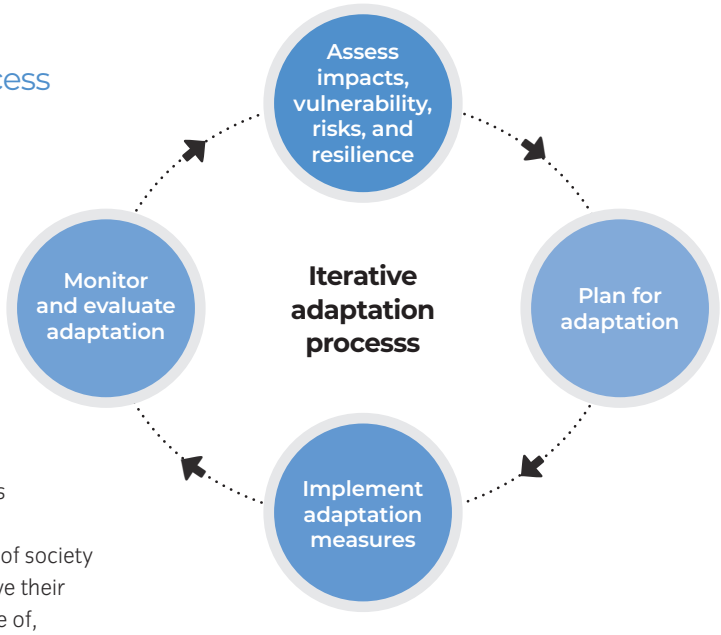
Climate change impacts are sounding alarm bells, both literal and figurative, around the world. According to the Intergovernmental Panel on Climate Change (IPCC), the atmosphere and oceans have warmed, the amount of snow and ice has diminished, the global mean sea level has risen, and the concentrations of greenhouse gases have increased. In 2019, the World Meteorological Organization (WMO) reported that 2015-2018 were the four warmest years on record, ocean heat content is at a record high, Arctic and Antarctic sea-ice extent is well below average, and extreme weather is impacting lives and sustainable development efforts on every continent.[2] As a result of anthropogenic greenhouse gas emissions from the pre-industrial period to today, warming will persist for centuries to come and its associated impacts, such as sea level rise, will continue to affect natural and human systems.[3] Further, the 2019 Global Assessment on Biodiversity and Ecosystem Services, published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), found that climate change is a growing risk that is already impacting nature, from genes to ecosystems.[4] Climate change is also increasingly exacerbating the impact of other drivers that are causing nature and its contributions to people to deteriorate around the world.

Both the WMO and IPCC, along with other experts and organizations, make clear that even small increases in warming yield significant consequences in terms of impacts and the capacity to adapt. Following the approval of the IPCC's Special Report on Global Warming of 1.5°C in 2018, Hans-Otto Pörtner, Co-Chair of IPCC Working Group II on Impacts, Adaptation and Vulnerability, said that "Every extra bit of warming matters, especially since warming of 1.5°C or higher increases the risk associated with long-lasting or irreversible changes, such as the loss of some ecosystems."[5] The Special Report itself notes that, though adaptation and mitigation efforts are already underway, "[f]uture climate-related risks would be reduced by the upscaling and acceleration of far-reaching, multilevel and cross-sectoral climate mitigation and by both incremental and transformational adaptation."[6]

These findings present a stark picture, particularly when juxtaposed against the reality that developing countries – especially least developed countries (LDCs) and small island developing States (SIDS) – are already struggling to cope with the climate change impacts that are ravaging their ecosystems and economies, and threatening to erase hard-won development gains. As a result, there are various categories of adaptation needs[7]– affecting people in both developing and developed countries – that include biophysical and environmental needs, social needs, institutional needs, needs for engaging the private sector, and information, capacity, and resource needs.[8] In relation to financial needs in particular, the 2016 UNEP Adaptation Finance Gap Report indicates that, by 2030, adaptation costs are likely to range from USD 140 to 300 billion per annum and that, by 2050, these costs could rise to between USD 280 and 500 billion per annum. Using the current levels of adaptation finance as a yardstick, the report suggests that adaptation costs could give rise to a dramatic increase in the adaptation finance gap, which already presents a significant challenge for developing countries today.[9]

2. See https://library.wmo.int/doc_num.php?explnum_id=5789
3. See https://www.ipcc.ch/sr15/
4. See https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services
5. See https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/
6. See https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf
7. The Adaptation Committee has long addressed the topic of adaptation needs in its work. For an overview, please see https://unfccc.int/sites/default/files/resource/AC%2016%20needs%20assessment%20inventory_2019.08.15.pdf
8. See https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap14_FINAL.pdf
9. See https://unepdtu.org/publications/the-adaptation-finance-gap-report/

FIGURE 1:
The iterative adaptation process includes four core steps



In addition to pursuing deep and rapid emissions reductions, individuals, communities, countries, businesses, civil society, and all other segments of society must therefore also pursue adaptation to improve their capacity to cope with, and even thrive in the face of, present and future climate change impacts. Jurisdictions from communities and cities to countries and regions are already beginning to adapt through a comprehensive and iterative process with four core steps (See figure 1 above):

1. **Assessing impacts, vulnerability, risks, and resilience**: This first step consists of initial and periodically updated assessments, grounded in systematic observations and the best available science, of how climate change is impacting, and is expected to impact, natural and human systems. It also includes an assessment of the capacity of these systems to adapt to climate change impacts.

2. **Planning for adaptation**: Subsequently, it is necessary to identify potential adaptation measures, and evaluate these measures – using, for example, a cost-effectiveness analysis – to prioritize and choose among the options available. Adaptation planning should seek to avoid duplication, prevent maladaptation, and contribute to sustainable development outcomes. This step, along with the following implementation step, is undertaken while acknowledging that, in some cases, not all impacts will be addressed by planned adaptation, and there will be a role for contingency arrangements and loss acceptance.

3. **Implementing adaptation measures**: Once a plan is in place, the next step is to implement adaptation initiatives at various levels – including local, national, and regional – and through a variety of means, including projects, programmes, policies, or strategies. Increasingly, adaptation is pursued through mainstreaming initiatives into budgets, sectoral policies, and sustainable development plans, though efforts can nonetheless be undertaken as stand-alone processes.

4. **Monitoring and evaluating (M&E) adaptation**: Finally, a continuous process of monitoring and evaluating adaptation is undertaken. This helps ensure that efforts are successful and that the knowledge and information generated from planning and implementation are fed back into the process to bolster the success of future efforts. Monitoring seeks to keep a record of progress made throughout the implementation phase, while evaluation seeks to determine the effectiveness of the initiative.

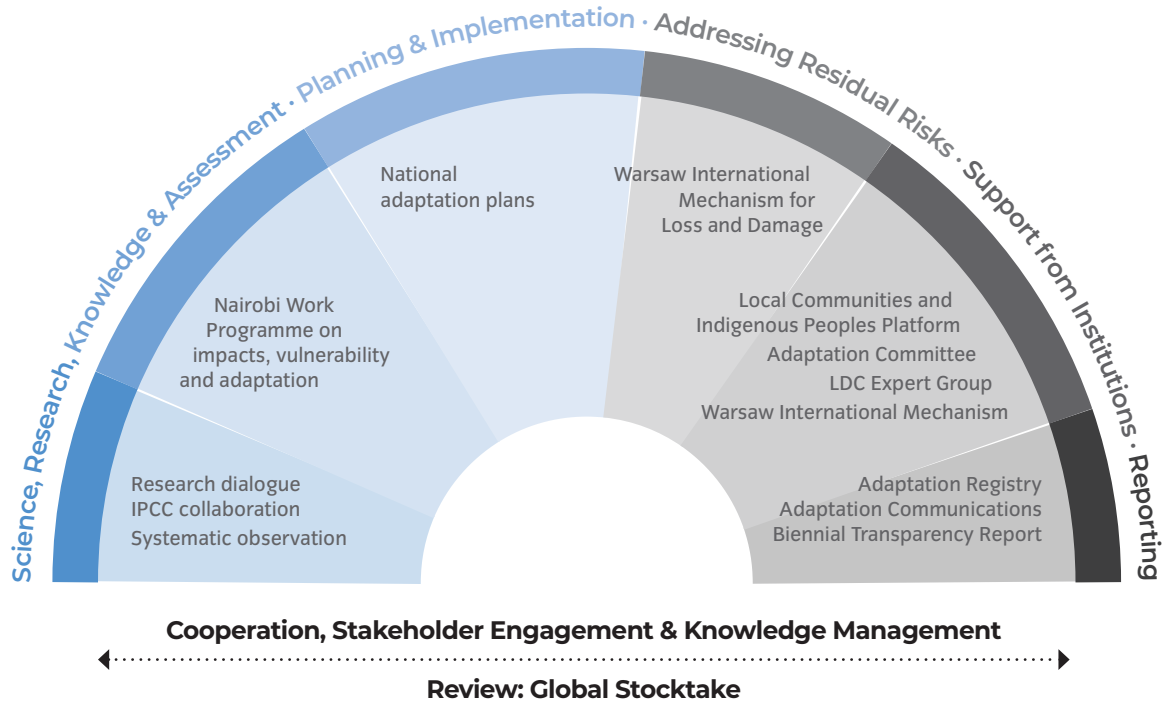
Throughout this process, continuous stakeholder engagement and communication, along with capacity-building, finance, and technology, are essential to the success of each step.

The UNFCCC process contributes to these steps in various ways, ranging from sharing knowledge and engaging numerous stakeholders to strengthening technical and institutional capacities and facilitating the provision of financial and technological support. Crucially, work under the Convention contributes to resilience building and adaptation across three primary response clusters: preemptive or planned adaptation (particularly through national adaptation plans, or NAPs); contingent arrangements – such as insurance – that provide a buffer capacity when climate disruptions occur; and addressing and tolerating losses.[10] The choice of which type of response to proceed with depends upon numerous factors, including risk and loss tolerance, societal values, and cost effectiveness in the given community or country making the selection.

10. See http://napexpo.org/2019/2019/04/11/daily-update-3/

The Evolution of Adaptation under the UNFCCC

FIGURE 2:
Facilitating support for adaptation under the UNFCCC

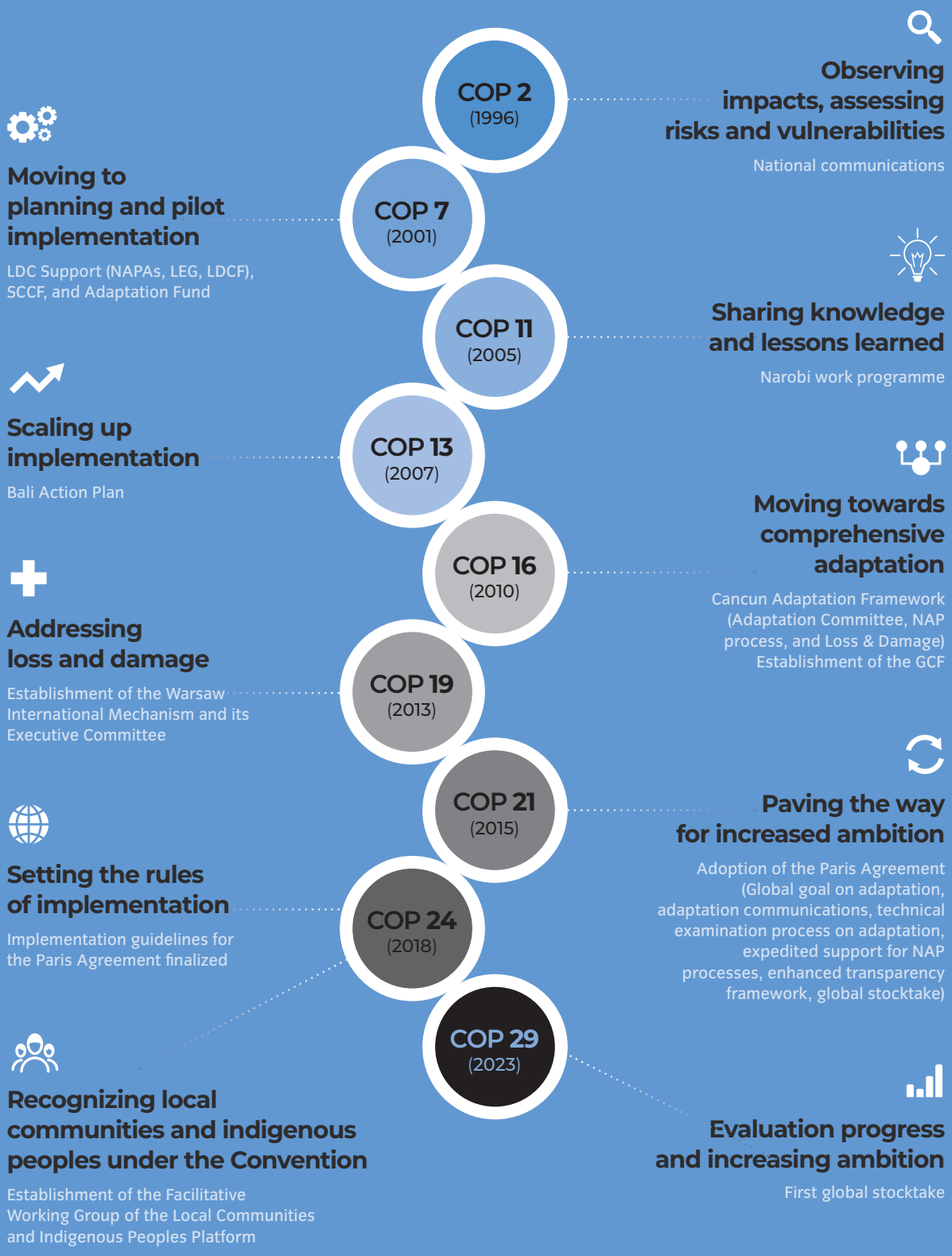


Witnessing, and, in many cases experiencing first-hand the increasing adverse impacts of climate change, Parties have paid significantly more attention to adaptation, both at home and through their activities under the Convention. As a result, the adaptation agenda has risen in prominence under the UNFCCC and this has given rise to various new processes and arrangements to support governments as they pursue adaptation with greater urgency. Figure 2 presents a snapshot of some of the instruments, mechanisms, bodies, and processes under the UNFCCC that facilitate this support, while figure 3 offers an overview of the adaptation-related milestones under the UNFCCC to date.

Observing the impacts and assessing risks, vulnerabilities, and resilience

When the Convention entered into force in 1994, the primary focus was on greenhouse gas mitigation, and the idea of adapting to anthropogenic climate change struggled to gain legitimacy alongside mitigation. In some cases, the discourse surrounding adaptation implied that it betrays an arrogant faith in the capacity of natural and human systems to adapt, and that it could siphon attention and energy away from the urgent problem of reducing emissions.

FIGURE 3:
Adaptation-related milestones under the UNFCCC



Nonetheless, countries began to carry out impact assessments based on global models, which constructed a range of possible long-term scenarios. Although these scenarios were not sufficiently detailed at the regional or national level, they were instrumental in identifying the key impacts of climate change. Parties reported the findings of their vulnerability and adaptation assessments in their initial national communications.[11] Second-generation assessments complemented the more scenario-based first generation by looking at current climate variability and ways in which people are actually becoming vulnerable and adapting. This approach also includes risk assessment along with more refined climate change scenarios, which allow for the consideration of what will happen in the future, given changes in both the natural and the socioeconomic environments.

The UNFCCC process assisted Parties in their assessments by facilitating the collection and sharing of sound climate data and information based on observations, research and modelling, including through close cooperation with international observation and research programmes and networks as well as through the annual Research Dialogue.[12]

Moving to planning and pilot implementation

Increasingly, the general sentiment surrounding adaptation shifted from seeking legitimacy to one of acceptance. This phase of the UNFCCC's history was marked by an initial hatching of initiatives – particularly workshops held jointly by the Subsidiary Body for Scientific and Technological Advice and Subsidiary Body for Implementation in 1999–2000 – which helped set the international agenda in relation to adaptation.

With the publication of the third assessment report of the IPCC in 2001, it became clear that mitigation alone would not be sufficient, and Parties began planning and implementing adaptation measures in earnest. The question moved from "do we need to adapt?" to "**how do we adapt?**" Under the Convention, this translated into a significant expansion of institutions explicitly mandated to support countries' adaptation efforts.

Recognizing that many developing countries, in particular the LDCs, were already facing a high degree of vulnerability to current climate variability, the Conference of the Parties (COP) in 2001 established a work programme to address the specific needs and special situations of LDCs. The work programme included, inter alia, the process of preparing and implementing national adaptation programmes of action (NAPAs) – which provided a process for LDCs to identify and communicate priority activities that respond to their urgent and immediate adaptation needs – and the establishment of the Least Developed Countries Expert Group (LEG) (see section on *Support and Guidance for Adaptation* below). The COP also established a Least Developed Countries Fund (LDCF) initially to support the preparation and implementation of NAPAs and subsequently to support other elements of the LDC work programme (see section on *Support and Guidance for Adaptation* below). At the time of publication, 51 LDCs had completed and submitted their NAPAs to the UNFCCC secretariat.[13]

In addition to the specific support for LDCs, all Parties were encouraged to exchange information on their experiences of the adverse effects of climate change and measures to meet their resulting needs. The COP also provided for Parties to contribute funding for pilot or demonstration projects to show how adaptation planning and assessment can be translated into projects, including in the areas of water resources management, land management, agriculture, health, infrastructure development, fragile ecosystems, and integrated coastal zone management. To channel such funding, the COP established a Special Climate Change Fund (SCCF) under the Convention and an Adaptation Fund under the Kyoto Protocol (see section on *Support and Guidance for Adaptation* below).

Sharing knowledge and closing knowledge gaps through partnerships

As planning and implementation of adaptation increased, so did the need for sharing knowledge, lessons learned and good practices with a wide range of stakeholders. Actions in one sector or location can help guide how another sector or location prepares for and responds to new risks emerging due to climate change. In response, the COP in 2005 launched the Nairobi work programme on impacts, vulnerability and adaptation to climate change (for more information on the Nairobi work programme, see box 1). The objective of the Nairobi work programme has been to assist all Parties, in particular developing countries, to improve their understanding and assessment of impacts, vulnerability and adaptation, and to make informed decisions on practical adaptation actions and measures.[14]

11. The most recent national communications submitted by Annex I Parties are available at https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-reports-annex-i-parties/seventh-national-communications-annex-i and those submitted by non-Annex I Parties are available at https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-update-reports-non-annex-i-parties/national-communication-submissions-from-non-annex-i-parties
12. For more information on research and systematic observation see https://unfccc.int/6990
13. This total includes Cabo Verde, Equatorial Guinea, Maldives, and Samoa, which graduated out of the LDC category. For more information on the NAPAs see https://unfccc.int/7567
14. For more information on the Nairobi work programme see https://unfccc.int/5137

During 2006-2007, a series of workshops and an expert meeting[15] helped facilitate information exchange to assist developing countries in identifying specific adaptation needs and concerns. Participants at three regional workshops and the expert meeting highlighted problems in accessing existing funding for adaptation and also called attention to the gap between the available financial support for adaptation and the funds required for facilitating adaptation in developing countries. These events also underscored the importance of coordinated and comprehensive approaches to supporting adaptation in the context of sustainable development, and that adaptation should be considered as a development concern. Participants urged wide stakeholder involvement through participatory approaches and learning from existing practices.

More recently, from 2010-2019, the Nairobi work programme has worked with partners and experts to identify adaptation practices and specific adaptation needs, and advance activities that produce knowledge products and catalyse partnerships for collaborative action in response to those needs. Adaptation needs (see box 1 for more details on the Nairobi work programme) are identified in a wide range of thematic areas including health, human settlements, ecosystems and water resources, oceans, indicators of climate adaptation and resilience, and ecosystems, rural systems, and communities.

Scaling up implementation

In September 2007, United Nations Secretary-General Ban Ki-moon hosted a High-Level Event on Climate Change, convening over 80 Heads of State and Government and constituting the first summit by the Secretary-General on climate change. At this event, the Secretary-General stressed to world leaders the importance of beginning to craft, through an inclusive process, a new international climate change deal at the upcoming COP session. He further highlighted that the deal must be comprehensive in its approach to solving climate change, including "adaptation, emission reductions, climate-friendly technologies and the necessary financial architecture."[16] Notably, the Secretary-General also resolved to throw the weight of the entire UN behind this process, stating that "the UN system is prepared to continue to do all that is possible to ensure that the international community can properly address the challenges of global warming."[17] This marked a significant shift towards greater engagement of UN organizations and agencies, and greater stakeholder engagement more broadly, throughout the UNFCCC process.

15. For more information on the workshops and expert meeting see https://unfccc.int/3582
16. See https://www.un.org/press/en/2007/sgsm11181.doc.htm
17. Ibid

BOX 1:

The Nairobi work programme: the UNFCCC's knowledge-to-action hub for adaptation and resilience

The Nairobi work programme, established at COP 11, is the first stakeholder engagement mechanism created under the Convention with over 380 partner organizations, including academic and research institutions, regional centres or networks, private sector entities, non-governmental and civil society organizations, and United Nations and affiliated organizations. It serves as a technical bridge between Parties, constituted bodies, and non-Party stakeholders to share and disseminate knowledge and experience on all aspects of vulnerability and adaptation, and to generate partnerships to collaborate on adaptation.

With the participation of partner organizations, government experts, and adaptation practitioners, activities under the Nairobi work programme aim to produce knowledge products and catalyse actions that respond to the identified knowledge needs of Parties related to various thematic areas and subregions around the world.

It does so in a variety of ways, including organizing meetings, workshops and focal point forums, and preparing various documents such as technical and synthesis papers, and publications on and compilations of adaptation practices and lessons learned. The Nairobi work programme also operates the Adaptation Knowledge Portal, which offers an open access, curated database of adaptation knowledge resources such as case studies, publications and technical documents, tools, and other materials.

Photo: Jeffrey Barbee – Thomson Reuters Foundation.

Two months later, in November 2007, the fourth assessment report of the IPCC (AR4) was published, which further confirmed that adaptation is necessary to address impacts resulting from the warming which is already unavoidable due to past emissions. The IPCC further stressed that a wide array of adaptation options is available, but more extensive adaptation than is currently occurring is required to reduce vulnerability to future climate change. Following on the heels of the AR4 and the Secretary-General's High-Level Event, the COP adopted the Bali Action Plan at COP 13 (December 2007), which launched a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, up to and beyond 2012. This process included enhanced action on adaptation as one of its core building blocks in the effort to establish a new instrument of implementation.

2010 was an important milestone in the history of adaptation under the UNFCCC process. Following three years of negotiations, Parties affirmed that adaptation must be addressed with the same level of priority as mitigation and adopted the Cancun Adaptation Framework (CAF)[18] with the objective of enhancing action on adaptation, including through international cooperation and coherent consideration of matters relating to adaptation under the Convention. The question Parties were then addressing was "**how do we integrate adaptation into relevant social, economic and environmental policies and actions?**"

In light of different national circumstances and capabilities, the COP agreed that adaptation actions should follow a country-driven, gender-sensitive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems. Examples of adaptation actions that Parties are invited to undertake by the CAF are included in box 2.

18. The full text of the CAF (decision 1/CP.16, section II) is available at https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf

BOX 2:

Adaptation actions included in the Cancun Adaptation Framework

The COP invited Parties to undertake:

- Planning, prioritizing and implementing adaptation actions, including projects and programmes,* and actions identified in national and subnational adaptation plans and strategies, NAPAs of the LDCs, national communications, technology needs assessments and other relevant national planning documents;
- Impact, vulnerability and adaptation assessments, including assessments of financial needs as well as economic, social and environmental evaluation of adaptation options;
- Strengthening institutional capacities and enabling environments for adaptation, including for climate-resilient development and vulnerability reduction;
- Building resilience of socio-economic and ecological systems, including through economic diversification and sustainable management of natural resources;
- Enhancing climate change related disaster risk reduction strategies, taking into consideration the Hyogo Framework for Action, where appropriate, early warning systems, risk assessment and management, and sharing and transfer mechanisms such as insurance, at the local, national, subregional and regional levels, as appropriate;
- Measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels;
- Research, development, demonstration, diffusion, deployment and transfer of technologies, practices and processes, and capacity-building for adaptation, with a view to promoting access to technologies, in particular in developing country Parties;
- Strengthening data, information and knowledge systems, education and public awareness;
- Improving climate-related research and systematic observation for climate data collection, archiving, analysis and modelling in order to provide decision makers at the national and regional levels with improved climate-related data and information.

*Including in the areas of water resources; health; agriculture and food security; infrastructure; socioeconomic activities; terrestrial, freshwater and marine ecosystems; and coastal zones.

Following the NAPA process, Parties recognised the need for LDCs to also identify medium- and long-term adaptation needs and to develop and implement strategies and programmes to address those needs. Consequently, the COP established a process for LDCs to formulate and implement national adaptation plans. An invitation was also extended to other developing countries to employ the modalities formulated to support their own NAP processes. COP 17 in 2011 adopted initial guidelines, which were further developed by the LEG into full technical guidelines.[19] The guidelines consist of the following four main elements:

1. **Laying the groundwork and addressing gaps;**
2. **Preparatory elements;**
3. **Implementation strategies; and**
4. **Reporting, monitoring and review.**

Various organizations have also developed materials to supplement the LEG's technical guidelines. These supplementary materials offer in-depth coverage of particular steps, sectors, or dimensions of the process to formulate and implement NAPs, addressing topics such as biodiversity, health, water, finance, and more.[20] Technical and financial support is available to support the NAP process (see section on *Support and Guidance for Adaptation* below). At the time of publication, 15 NAP documents[21] have been submitted.[22]

Notably, within the context of the CAF, COP 16 also established the Adaptation Committee, which began a period of defragmentation and coherence spearheaded by the Committee (see section on *Support and Guidance for Adaptation* below).

Adaptation Under the Paris Agreement

Since it was adopted in 2015, the landmark Paris Agreement reinforced the critical importance of adaptation in the global effort to respond to the threat of climate change. The Agreement focused the attention of Parties on the question of "**how can we scale up adaptation action in a holistic and nationally determined yet collectively ambitious manner?**" It entered into force on 4 November 2016, ushering in a renewed collective effort to implement ambitious climate action that builds upon the foundation laid by the Convention, and, in relation to adaptation, represents a move towards comprehensive planning and implementation. At the time of publication, 187 Parties have ratified the Agreement, out of 197 Parties to the Convention.[23]

Article 7 of the Paris Agreement defines a global goal on adaptation, with an objective "of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal" of holding average global warming well below 2°C and pursuing efforts to hold it below 1.5°C. This goal elevates adaptation from a local undertaking to a global ambition embedded in sustainable development efforts, and tethered to the mitigation objectives to which governments committed in the Agreement. Further acknowledging the intrinsic link between adaptation and mitigation, in the Agreement "Parties recognize[d] that the current need for adaptation is significant and that greater levels of mitigation can reduce the need for additional adaptation efforts, and that greater adaptation needs can involve greater adaptation costs."

In addition to outlining an overarching adaptation goal, the Paris Agreement also initiated the use of a new, adaptation-focused communication instrument—titled an adaptation communication—where Parties can include their "priorities, implementation and support needs, plans and actions" related to adaptation. Parties should, as appropriate, submit and periodically update these communications, and include these as a component of or in conjunction with other communications or documents, including NAPs, nationally determined contributions (NDCs), or national communications.

Beyond establishing a new communications instrument, the Paris Agreement also gave rise to a new reporting instrument through the enhanced transparency framework established by Article 13. Under this framework, which aims to build mutual trust and confidence and promote effective implementation, Parties will submit biennial transparency reports (BTRs) that provide information on climate change action and support provided and received. Parties should include information related to climate change impacts and adaptation; this is not mandatory but could facilitate the recognition of adaptation efforts of developing countries, as stipulated by Article 7. The framework provides flexibility to developing country Parties that need it in light of their capacities.

19. The technical guidelines are available in Arabic, English, French, Portuguese and Spanish along with other informational material at https://unfccc.int/7279
20. To access these supplementary materials, please see https://www4.unfccc.int/sites/NAPC/Guidelines/Pages/Supplements.aspx
21. See https://www4.unfccc.int/sites/NAPC/News/Pages/national_adaptation_plans.aspx
22. Parties are encouraged to submit their NAP documents to the UNFCCC.
23. See https://unfccc.int/process/the-paris-agreement/status-of-ratification

TABLE 1:

Key UNFCCC instruments for adaptation planning, communication, and reporting

	Cancun Adaptation Framework	Paris Agreement
Purposes	Plan and implement	Communicate and report
Instrument	National Adaptation Plans	Adaptation communications Adaptation sections of BTRs

Parties to the Paris Agreement will thus be able to use a range of instruments to enhance adaptation. Given the flexibilities provided by the Agreement, Parties will need to find a combination of arrangements most suitable to their national preference, while also considering international information needs and the importance of maintaining the integrity of international processes such as the NAPs. When communicating through adaptation communications, and when reporting through the BTRs, countries need to carefully consider several factors. This includes, for example, why the information is provided, in particular how the reporting can assist with national and international information needs. Another important consideration is how to prepare the information and report in a manner that minimizes burdens. Finally, it will be important to reflect how these instruments can be applied in a way that maintains the integrity of the process to formulate and implement NAPs on the one hand, and the communication and reporting arrangements for adaptation under the Paris Agreement, on the other. Table 1 provides a general characterization of the main adaptation instruments and their purposes under the CAF and the Paris Agreement, while box 3 compares the different functions of the adaptation communications and the NAPs.

BOX 3:

Differentiating national adaptation plans from adaptation communications

As their respective names suggest, adaptation communications are communication instruments, while national adaptation plans (NAPs) are strategic planning documents. NAPs are the primary UNFCCC instrument for adaptation, helping to plan for sustainable development while adjusting to climate impacts. The process of formulating and implementing NAPs encompasses a continuous, progressive, and iterative multiple step process that follows a country-driven, gender-sensitive, participatory, and transparent approach. This process culminates in a comprehensive action plan that can guide countries as they build a bridge to a climate-resilient future. NAPs help governments analyze climate risks based on robust scenarios, identify and implement adaptation options, and integrate those options into planning. A robust NAP can therefore help reduce the risks facing vulnerable states, increase resilience, and strengthen adaptive capacity.

Adaptation communications, by contrast, can distill the essence of the NAP process, or other adaptation planning processes, to provide an overview of a given country's adaptation priorities, plans, and efforts. The purpose of the adaptation communication is fourfold: 1) increasing the visibility and profile of adaptation and its balance with mitigation; 2) strengthening adaptation action and support for developing countries; 3) providing input to the global stocktake; and 4) enhancing learning and understanding of adaptation needs and actions. While NAPs therefore provide a clear basis for securing financing for and implementing adaptation action, adaptation communications instead provide a high-level summation of a Party's approach to adaptation.

Photo: Andy Leo – Flickr.

BOX 4:

Technical Examination Process on Adaptation

The Technical Examination Process on Adaptation fulfills four core functions:

1. Facilitating the sharing of good practices, experiences and lessons learned;
2. Identifying actions that could significantly enhance the implementation of adaptation actions, including actions that could enhance economic diversification and have mitigation co-benefits;
3. Promoting cooperative action on adaptation; and
4. Identifying opportunities to strengthen enabling environments and enhance the provision of support for adaptation in the context of specific policies, practices and actions.

The decision adopting the Paris Agreement also launched the technical examination process on adaptation (TEP-A) to "identify concrete opportunities for strengthening resilience, reducing vulnerabilities and increasing the understanding and implementation of adaptation actions."[24] Taking place from 2016 to 2020, the TEP-A serves to catalyze pre-2020 adaptation action through four core functions (see box 4). Responsibility for conducting the TEP-A lies with the Adaptation Committee, who continuously works with a diverse set of stakeholders – including constituted bodies, intergovernmental organizations, non-governmental organizations, academic institutions, youth, etc. – to both plan and execute each year's TEP-A.

The cornerstone of the TEP-A is the technical expert meeting on adaptation (TEM-A), taking place annually from 2016-2020 on a variety of adaptation themes. To date, these meetings have convened a wide range of experts from around the world to exchange the latest research, tools, and case studies related to adaptation. Additionally, they have given rise to concrete recommendations for policymakers and technical papers on specific adaptation themes that help both policymakers and practitioners advance action on adaptation. At the time of publication, four out of five TEM-As have already taken place on the following topics:

- **2016**: Reducing vulnerability and mainstreaming climate change adaptation, including through the process to formulate and implement NAPs;
- **2017**: Integrating climate change adaptation with the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction;
- **2018**: Adaptation planning for vulnerable groups, communities, and ecosystems;
- **2019**: Adaptation finance, including the private sector.[25]

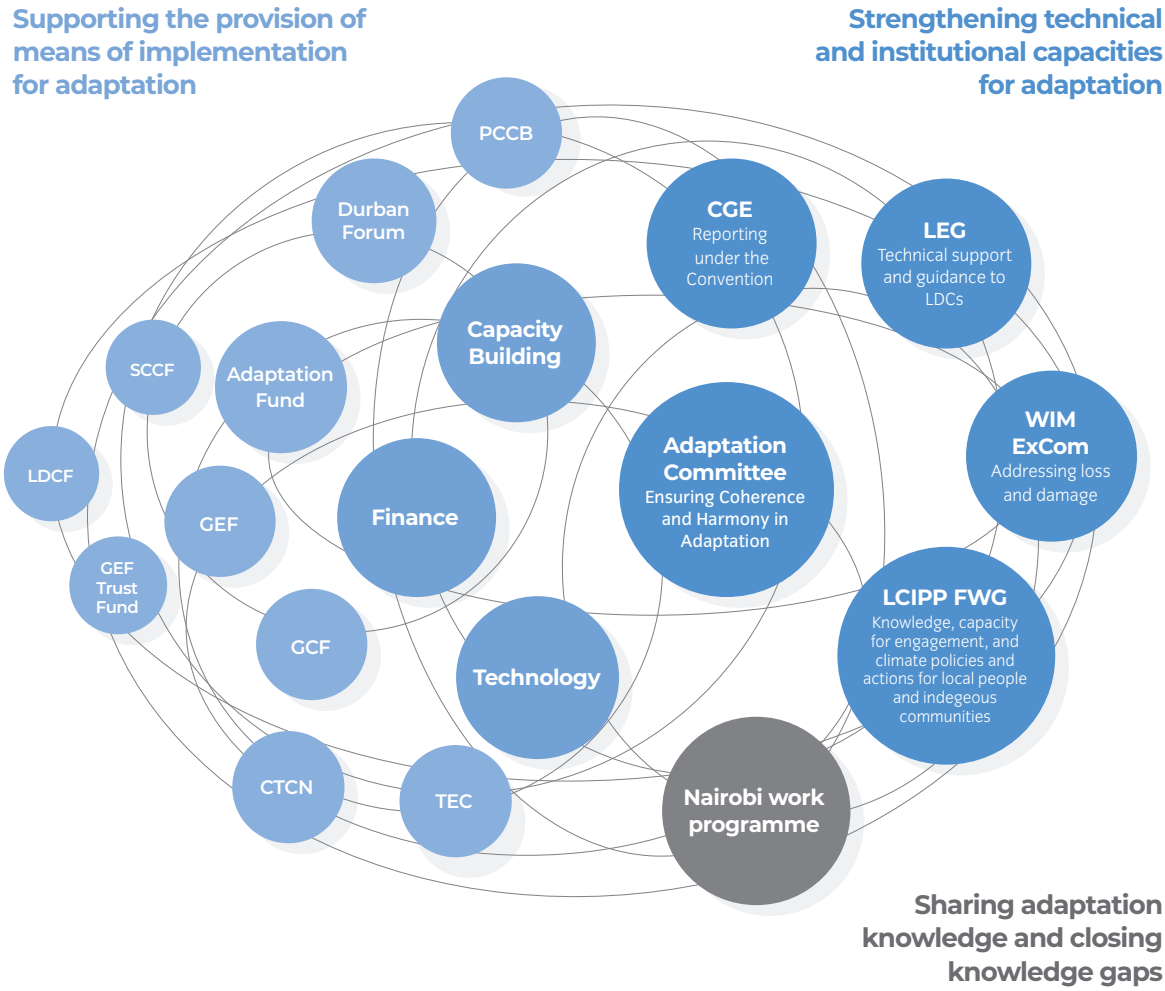
The 2020 TEP-A will focus on the topic of *Education and training, public participation and youth to enhance adaptation action*.

Support and Guidance for Adaptation

As this history illustrates, as efforts to mitigate and adapt to climate change have intensified under the UNFCCC, several forums, committees and bodies have been established to enhance adaptation actions by facilitating the provision of financial and technological support, and strengthening technical and institutional capacities (See figure 4 below). With a particular focus on developing

24. See Decision 1/CP.21 https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf
25. For more information about the TEP-A, including reports, outreach materials, and recordings, see http://tep-a.org/

FIGURE 4:
The adaptation landscape under the UNFCCC: a network of institutions



countries, these support providers assist Parties and other actors to navigate the complex terrain of understanding and responding to the threat of climate change.

Strengthening Technical and Institutional Capacities

Successfully adapting to climate change requires significant technical and institutional capacities at the local, subnational, national, and regional levels in order to understand relevant risks and impacts, develop a plan to address the risks and impacts, subsequently implement the actions outlined in these plans, and evaluate their progress and amend the approach as necessary.

The Adaptation Committee

In 2010, COP 16 established the Adaptation Committee as the principal body under the Convention – and under the United Nations system more broadly – to provide comprehensive expert advice on adaptation action and support for adaptation efforts. It is the only body under the Convention whose work regularly addresses all facets of the adaptation process in a holistic and overarching manner. Since its first meeting in 2012, the Adaptation Committee has consistently delivered high-quality reports and other products, organized stimulating workshops, provided support and guidance to Parties, shared a wealth of information, knowledge, experience and good practices, and helped ensure that adaptation is addressed under the Convention in a coherent manner.

To fulfill its mandate, the Adaptation Committee cultivates partnerships with various stakeholders both within and outside of the UNFCCC process. Indeed, the Committee has earned and wielded significant convening power over the years, which has enabled it to launch successful collaborations and excellent products and events that integrate the perspectives of Party and non-Party

stakeholders from all walks of life. In particular, this includes collaboration with the other constituted bodies under the Convention and the climate funds, including through joint events and workshops, representation at one another's meetings and working groups, and other initiatives. This network of cooperation is essential in ensuring that efforts under the UNFCCC process approach adaptation in a holistic and harmonious way, and that each group or organization's expertise is leveraged to achieve the best possible results for Parties.

In 2018, the decisions reached by COP 24 cemented the crucial role of the Adaptation Committee in the processes and mechanisms emerging from the Paris Agreement. This includes contributing directly to the global stocktake (see section *Looking Ahead* below) and recognizing the adaptation efforts of developing country Parties.

Each year, the Adaptation Committee hosts an Adaptation Forum, which is an outreach and information sharing event that seeks to foster discussions on concrete adaptation options and experiences, and raise the profile of adaptation globally. To date, five Adaptation Forums have been held in Warsaw, Panama City, Rotterdam, Cape Town, and Songdo. These Forums have covered topics ranging from broad discussions on adapting to a changing climate (2013) to more focused exchanges on institutional arrangements to build partnerships and strengthen regional networks (2015) and engaging the private sector in adaptation planning (2019).

The LDC Expert Group

Established by the COP in 2001, the LDC Expert Group (LEG) provides technical guidance and support to the LDCs on the preparation and implementation of NAPAs, the implementation of the LDC work programme, and the process to formulate and implement NAPs. It does so in a variety of ways, including by developing technical guidelines, publishing technical papers, conducting training activities and workshops, hosting expert meetings, disseminating case studies, capturing and sharing best practices and lessons learned, and monitoring progress and gaps.[26]

Since 2013, the LEG has been hosting global NAP Expos, which are annual outreach events that aim to advance the formulation and implementation of NAPs by promoting an exchange of experiences and fostering new partnerships between various stakeholders engaged in the NAP process.

In 2015, COP 21 issued a series of joint mandates to the Adaptation Committee and the LEG to assist with the implementation of the Paris Agreement, thereby intensifying the cooperation between the two bodies. Specifically, the Adaptation Committee and the LEG have been working on modalities and methodologies for recognizing the adaptation efforts of developing country Parties, facilitating the mobilization of support for adaptation in developing countries, and reviewing the adequacy and effectiveness of adaptation and support.[27]

Photo: USAID – Cambodia HARVEST/Fintrac Inc.

Executive Committee of the Warsaw International Mechanism for Loss and Damage

Another body focused on assisting developing countries, the Executive Committee of the Warsaw International Mechanism for Loss and Damage was established in 2013 to address loss and damage associated with the impacts of climate change in developing countries that are vulnerable to the adverse effects of climate change.[28] Through its work, the Executive Committee addresses both extreme weather events (e.g. heatwaves, droughts, floods, tropical cyclones, and storm surges) and slow onset events (e.g. loss of biodiversity, land and forest degradation, glacial retreat and related impacts, ocean acidification, sea level rise, salinization, rising temperatures, and desertification). In addition to different types of events that result in loss

26. For more information about the LEG, see https://unfccc.int/LEG
27. For more information, see https://unfccc.int/topics/adaptation-and-resilience/groups-committees/adaptation-committee/joint-ac-and-leg-mandates-in-support-of-the-paris-agreement
28. For more information about the Executive Committee, see https://unfccc.int/wim-excom

Photo: The BOMA Project.

or damage, its work also addresses different types of loss and damage, namely economic, e.g. income or physical assets, and non-economic, e.g. related to individuals, society, and the environment. Article 8 of the Paris Agreement reinforced the crucial importance for all Parties of averting, minimizing and addressing loss and damage, and reaffirmed the centrality of the Warsaw International Mechanism to these efforts.

Thematic technical expert groups play a major role in catalyzing expertise and resources to carry out the activities of the workplan of the Executive Committee. Currently, the Executive Committee has provisions for four such groups on slow onset events, non-economic losses, displacement, and comprehensive risk management approaches. The Executive Committee established the Task Force on Displacement in 2015, upon a request by the COP. It is tasked with developing recommendations for integrated approaches to avert, minimize, and address displacement related to the adverse impacts of climate change. To develop its recommendations, the Task Force engaged and drew upon experts from various relevant communities of practice, including development, humanitarian, human mobility, civil society, adaptation, LDCs, and loss and damage.[29] Its members also include representatives from the Adaptation Committee and the LEG. The Task Force is currently in its second phase with a new set of activities focused on, among other things, further facilitating the implementation of the recommendations it delivered to COP 24.[30]

In fulfilling its mandate, the Executive Committee has also been assisting developing countries by providing a platform, the Fiji Clearing House for Risk Transfer, to connect experts and those looking for risk transfer solutions in order to build tailor-made responses and foster climate-resilient sustainable development.

The Facilitative Working Group of the Local Communities and Indigenous Peoples Platform

In recognition of the need to strengthen the knowledge, technologies, practices, and efforts of local communities and indigenous peoples related to addressing and responding to climate change, COP 21 in 2015 created the Local Communities and Indigenous Peoples Platform[31] (LCIPP). Established at COP 24 in 2018, the Facilitative Working Group[32] (FWG) of the LCIPP facilitates the implementation of the LCIPP's three core functions in the areas of knowledge, capacity for engagement, and climate

29. For more information about the Task Force, see https://unfccc.int/wim-excom/sub-groups/TFD#eq-3
30. These recommendations are contained in the Annex to Decision 10/CP.24.
31. For more information about the LCIPP, see https://unfccc.int/topics/local-communities-and-indigenous-peoples-platform/the-big-picture/introduction-to-the-local-communities-and-indigenous-peoples-platform-lcipp#eq-3
32. For more information about the FWG, see https://unfccc.int/process-and-meetings/bodies/constituted-bodies/facilitative-working-group-of-the-lcipp/facilitative-working-group-of-the-local-communities-and-indigenous-peoples-platform

Photo: UNDP CCA.

change policies and actions. The FWG represents a historic development under the UNFCCC as the first constituted body to have indigenous peoples and government representatives working side by side, in equal numbers and with equal roles in decision-making, as members. It is an explicit and concrete recognition of the role of indigenous peoples and local communities as powerful agents of change with a critical part to play in delivering adaptation solutions. Once the FWG begins to implement its initial two-year workplan for 2020–2021, its work will both amplify the voices of indigenous peoples and local communities in the area of adaptation, and empower them to more effectively shape adaptation policy and action.

The Consultative Group of Experts

Building and strengthening technical and institutional capacities at local, national and regional levels is vital to enable developing countries to adapt to climate change. The need for capacity-building has long been recognized under the Convention. In order to assist developing countries in the preparation of their national communications, including vulnerability and adaptation assessments, the COP in 1999 established the Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (CGE).[33] Over the years, the CGE has developed extensive training materials and has undertaken numerous regional hands-on training workshops on vulnerability and adaptation assessments.

In 2018, the COP decided to shorten the name to the Consultative Group of Experts, and broaden its mandate to support the implementation of the enhanced transparency framework under the Paris Agreement. Going forward, this support will include facilitating the provision of technical advice and support to developing country Parties to prepare their BTRs, which should include information on climate change impacts and adaptation.

The Durban Forum on Capacity-Building and the Paris Committee on Capacity-building

COP 17 established the Durban Forum on Capacity-building in 2011 to improve the monitoring and review of the effectiveness of capacity-building within the international climate change process.[34] It is an annual, in-session event that brings together stakeholders involved in building capacity in developing countries, including in the area of adaptation.

Further underscoring the importance of climate-related capacity-building in developing countries, the Paris Committee on Capacity-building (PCCB) was created in 2015 to address current and emerging gaps and needs in implementing and enhancing capacity-building.[35] Similar to the Adaptation Committee's overarching role with respect to adaptation, the PCCB helps to ensure that the approach to capacity-building under the Convention and the associated institutional architecture is coherent and consistent, and avoids duplication and fragmentation.

Providing Financial and Technological Support

Developing countries require financial support to plan, implement, and evaluate adaptation measures. Article 11 of the Convention therefore defined a financial mechanism to provide resources on a grant or concessional basis. Initially, Article 21.3 of the Convention entrusted the operation of the financial mechanism to the Global Environment Facility (GEF) on an interim basis, which was made permanent in 1998. The financial mechanism is subject to review every four years. The seventh review will be initiated at COP 26 (November 2020).

The GEF operates three funds supporting adaptation to varying degrees: the GEF Trust Fund,[36] the LDCF, and the SCCF. The GEF Trust Fund supports enabling activities,

33. For more information about the CGE, see https://unfccc.int/process/bodies/constituted-bodies/consultative-group-of-experts#eq-1
34. For more information on the Durban Forum on Capacity-building, see https://unfccc.int/topics/capacity-building/workstreams/durban-forum-on-capacity-building
35. For more information about the PCCB, see https://unfccc.int/pccb
36. Under the Trust Fund, the GEF has operated a Strategic Priority on Adaptation, which supported pilot and demonstration projects that addressed adaptation and at the same time generated global environmental benefits. The funding of USD 50 million has been allocated and the portfolio is complete.

i.e. mainly vulnerability and adaptation assessments as part of the national communications.[37] The LDCF supports the preparation and implementation of NAPAs, and other aspects of the LDC work programme. In 2011 it was requested to consider how to enable activities for the preparation of the NAP process.[38] In recognition of the importance of this mandate, the LDCF has made available USD 55 million to support the NAP processes of LDCs.[39] The first project in support of the NAP process was approved in May 2013: a UNDP–UNEP global support programme for LDCs. As at 30 June 2019, the LDCF had financed the preparation of 51 NAPAs, all of which have been completed, and the approval of 223 projects and programs supporting NAPA implementation, the NAP process, and other elements of the LDC work programme.[40] Finally, the SCCF is partly designed to finance adaptation activities that increase resilience to the impacts of climate change, through a focus on adaptation responses particularly in water resources, land, agriculture, health, infrastructure development, disaster preparedness, and in fragile ecosystems and coastal zones. The SCCF was requested in 2012 to consider how to enable activities for the preparation of the NAP process for interested developing country Parties that are not LDC Parties.[41] For the reporting period concluding in June 2018, the SCCF provided USD 5.1 million in support for this purpose. Over the past 27 years, GEF resources have contributed significantly to adaptation efforts, helping to deliver vulnerability reduction for more than 11 million people in 130 countries.[42]

In 2018, the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA) asked the GEF to support developing country Parties to prepare the new reporting and communications documents initiated by the Paris Agreement. Specifically, the CMA urged and requested the GEF to support developing country Parties in preparing their BTRs, and to consider channelling support to these Parties for the preparation and submission of their adaptation communications. The GEF has noted these requests and invitations, and has started consultations on how to meet the needs in relation to the BTRs.[43]

The Adaptation Fund was set up to support adaptation projects and programmes in developing countries that are particularly vulnerable to the adverse effects of climate change and is supervised and managed by its own Board.[44] In contrast to relying entirely on voluntary pledges like the LDCF and the SCCF, the Adaptation Fund is sourced through a 2 per cent levy on proceeds from Clean Development Mechanism projects in addition to other voluntary sources. In 2018, the Adaptation Fund set a new single-year record for new pledges totalling about USD 129 million, eclipsing the Fund's previous record of USD 95.9 million from 2017.[45]

The fourteenth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol decided that the Adaptation Fund shall serve the Paris Agreement as of 1 January 2019, cementing the Fund's role in the future of the UNFCCC process. It was further decided that the Fund will be financed by a levy of proceeds under Article 6, paragraph 4, of the Paris Agreement once available and will continue to be financed by a levy of proceeds from the Clean Development Mechanism.

In response to the call of developing countries for long-term, scaled-up, predictable, new and additional finance, COP 16 established the Green Climate Fund (GCF) as part of the Cancun Agreements in 2010. Like the GEF, the GCF is an operating entity of the Convention's financial mechanism. The COP decided that a significant share of new multilateral funding for adaptation should flow through the GCF. Funding for adaptation is provided via a thematic window.[46] The GCF funds approved projects through instruments including grants, concessional debt financing, equity, and guarantees, and is aiming for a 50:50 balance between mitigation and adaptation allocations in its portfolio. GCF funding for adaptation is distributed across four results areas, namely most vulnerable people and communities; health and well-being, and food and water security; infrastructure and built environment; and ecosystem and ecosystem services.

In 2015, COP 21 requested that the GCF expedite support for the formulation of NAPs and the implementation of programmes, projects and policies identified in the NAPs in developing country Parties. The following year, the GCF Board decided to provide this support through its Readiness and Preparatory Support Programme.[47] Available to all developing countries, the GCF Readiness and Preparatory Support Programme aims to enhance country ownership and access to the Fund, with a particular focus on especially vulnerable countries including LDCs, SIDS, and African States. Through this Programme, in recognition of the urgent need to expedite

37. For more information on adaptation funding under the GEF, see http://thegef.org/gef/adaptation
38. For more information on the LDCF, including relevant decisions, see https://unfccc.int/process-and-meetings/bodies/constituted-bodies/least-developed-countries-expert-group-leg/ldc-portal/least-developed-countries-ldc-fund
39. https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.LDCF_.SCCF_.24.04_Progress_Report_LDCF_SCCF_0.pdf
40. See the GEF report to COP 25 https://www.thegef.org/sites/default/files/documents/gef_report_unfccc_cop25.pdf
41. For more information on the SCCF, including relevant decisions, see https://unfccc.int/3657
42. See https://www.thegef.org/about-us
43. See the GEF report to COP 25 https://www.thegef.org/sites/default/files/documents/gef_report_unfccc_cop25.pdf
44. For more information on the Adaptation Fund, see www.adaptation-fund.org
45. See https://www.adaptation-fund.org/adaptation-fund-breaks-single-year-resource-mobilization-record-nearly-us-129m-new-pledges-received/
46. For more information on the GCF, see https://www.greenclimate.fund
47. See https://www.greenclimate.fund/how-we-work/empowering-countries

Photo: Delta Works.

support for the NAP process, the GCF can approve up to USD 3 million per country for the formulation of NAPs. This is in addition to the maximum of USD 1 million per year that developing countries can access under the Readiness Programme.

A Standing Committee on Finance (SCF) was established in 2010 to assist the COP in improving coherence and coordination in the delivery of climate change financing, rationalizing the financial mechanism, mobilizing financial resources, and in the measurement, reporting and verification of the support provided to developing countries.[48] This work is expected to make adaptation finance more effective, including simplified access for developing countries.

In addition to finance, technology transfer is an essential element in assisting developing countries in their adaptation and resilience building efforts. In many cases, technology is integral to the design and implementation of adaptation measures; facilitating the development and diffusion of technology, as well as the associated knowledge and relevant practices, therefore helps expedite concrete adaptation action.

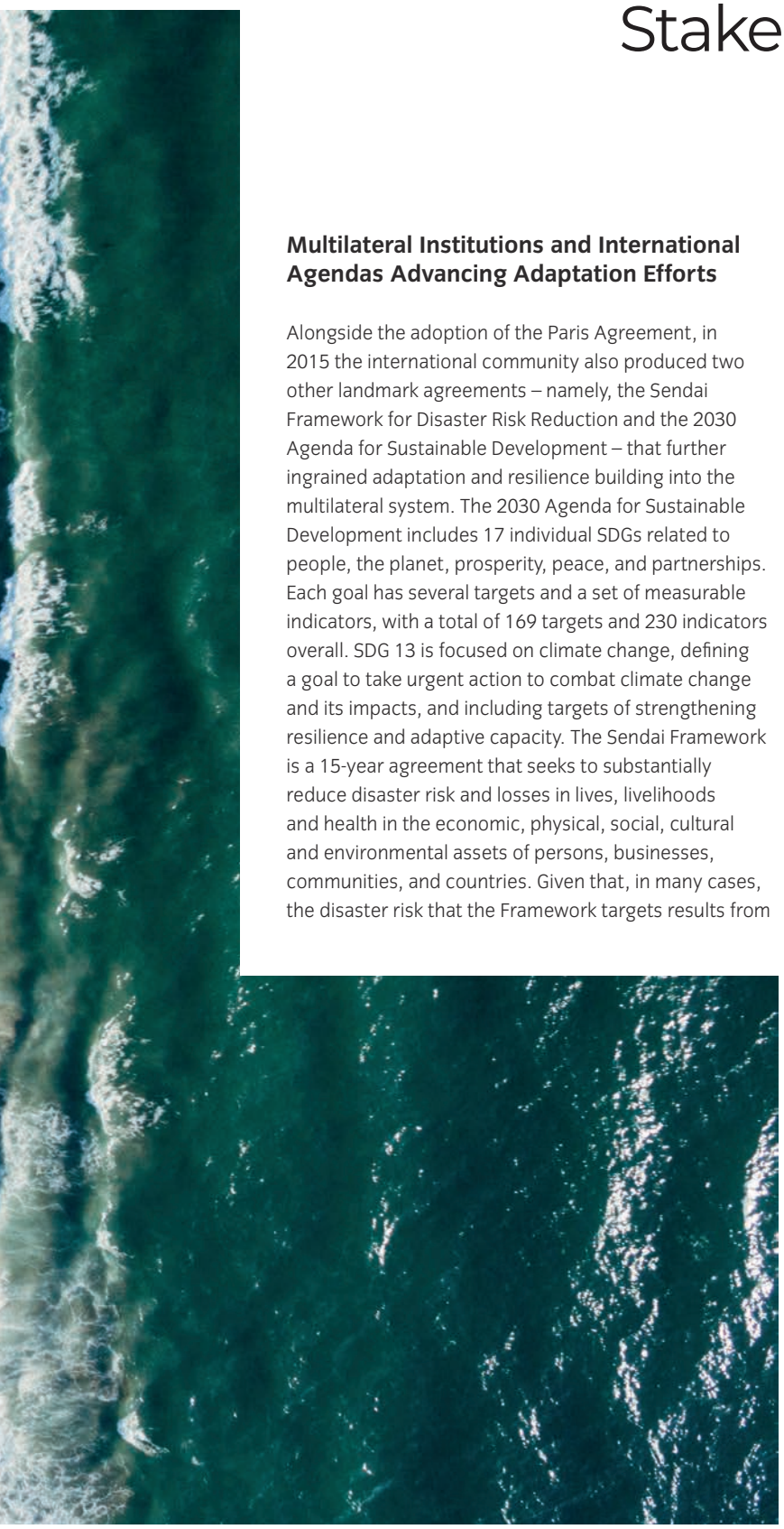
In order to enhance action on technology development and transfer, countries in 2010 established a Technology Mechanism under the Convention consisting of a Technology Executive Committee (TEC)[49] and a Climate Technology Centre and Network (CTCN).[50] Among other functions, the TEC is to provide an overview of technological needs and analysis of policy and technical issues related to the development and transfer of technologies, including technologies for adaptation; to recommend actions to promote technology development and transfer; and promote and facilitate collaboration on the development and transfer of technologies, including technologies for adaptation, between governments, the private sector, non-profit organizations, and academic and research communities.

The objective of the CTCN is to stimulate technology cooperation, to enhance the development and transfer of technologies, and to assist developing countries at their request. The CTCN seeks to build or strengthen countries' capacity to identify technology needs, to facilitate the preparation and implementation of technology projects and strategies to support action, including on adaptation, and enhance climate-resilient development. The CTCN is hosted by the United Nations Environment Programme (UNEP), as the leader of a consortium of partner organizations which was selected by Parties in 2012. As at July 2019, the CTCN had engaged with 93 developing country Parties on 273 requests for technical assistance.[51]

48. For more information on the SCF see https://unfccc.int/SCF
49. For more information on the Technology Mechanism and the TEC see https://unfccc.int/ttclear/tec
50. For more information on the CTCN see https://www.ctc-n.org/
51. See the Joint annual report of the Technology Executive Committee and the Climate Technology Centre and Network for 2019 available at https://unfccc.int/documents/200725

Photo: Paul Hanaoka – Unsplash.

Multilateral, International, Regional and National Organizations and Stakeholders Advancing Adaptation



Multilateral Institutions and International Agendas Advancing Adaptation Efforts

Alongside the adoption of the Paris Agreement, in 2015 the international community also produced two other landmark agreements – namely, the Sendai Framework for Disaster Risk Reduction and the 2030 Agenda for Sustainable Development – that further ingrained adaptation and resilience building into the multilateral system. The 2030 Agenda for Sustainable Development includes 17 individual SDGs related to people, the planet, prosperity, peace, and partnerships. Each goal has several targets and a set of measurable indicators, with a total of 169 targets and 230 indicators overall. SDG 13 is focused on climate change, defining a goal to take urgent action to combat climate change and its impacts, and including targets of strengthening resilience and adaptive capacity. The Sendai Framework is a 15-year agreement that seeks to substantially reduce disaster risk and losses in lives, livelihoods and health in the economic, physical, social, cultural and environmental assets of persons, businesses, communities, and countries. Given that, in many cases, the disaster risk that the Framework targets results from hydrometeorological hazards exacerbated by climate change, efforts under the agreement are intimately associated with efforts to adapt to climate change impacts.

Collectively, all three agreements paved the way for a future of heightened international cooperation on adaptation, and a mainstreaming of climate change adaptation into both development and disaster risk reduction activities. What's more, pursuing an integrated approach to implementing these three agendas offers countless potential benefits and opportunities, particularly in relation to enhanced coherence, efficiency, and effectiveness.[52]

More broadly under the United Nations system, many agencies have continued to collaborate with one another and with national and subnational stakeholders to bolster knowledge on adaptation, and plan and implement adaptation efforts in developing countries. UNEP, for example, actively assists countries in all manner of adaptation efforts, ranging from implementing ecosystem-based adaptation projects to accessing finance for building capacity and resilience.[53] UNEP also hosts the World Adaptation Science Programme, a joint endeavor between the WMO, IPCC, UNFCCC, the GCF, and UNEP that promotes science for climate change adaptation policy and action by providing scientific data and knowledge, facilitating knowledge transfer, and more effectively linking science to policy, finance, and action.[54] Similarly, the United Nations Development Programme (UNDP) works extensively on advancing climate change adaptation. Their work encompasses a wide range of initiatives that promote resilient, sustainable development outcomes, including supporting integrated water resource and coastal management, fostering resilience for food security and working on climate-resilient agriculture, and building climate resilient energy and infrastructure platforms.[55]

52. See http://unfccc.int/files/adaptation/groups_committees/adaptation_committee/application/pdf/techpaper_adaptation.pdf
53. For more about UNEP's work on adaptation, see https://www.unenvironment.org/explore-topics/climate-change/what-we-do/climate-adaptation
54. See https://www.unenvironment.org/explore-topics/climate-change/what-we-do/climate-adaptation/world-adaptation-science-programme
55. For more information about UNDP's work on adaptation, see https://www.adaptation-undp.org/about

In addition, UNEP and UNDP jointly host the National Adaptation Plan Global Support Programme (NAP-GSP), funded by the GEF, which assists LDCs and other developing countries with the process to formulate and implement NAPs. To date, it has supported 47 developing countries across four regions over five years. Specifically, the NAP-GSP helps countries integrate adaptation into medium- and long-term planning and financing efforts by identifying their financial, institutional, and technical needs.[56]

The UNFCCC is one of three Rio Conventions adopted at the 1992 Rio Earth Summit, alongside the UN Convention on Biological Diversity and the Convention to Combat Desertification. Recognizing the fundamental linkages between biodiversity, land degradation, and climate change, formal institutions were set up to foster collaboration between the three Rio Conventions, namely through the Joint Liaison Group and the Rio Conventions Pavilion.[57] The Joint Liaison Group was established to bolster cooperation among the Rio Conventions, aiming to develop synergies on issues of mutual concern. This group now also includes the Ramsar Convention on Wetlands. By contrast, the Rio Conventions Pavilion is a platform that seeks to raise awareness and exchange information about recent practices and scientific findings that connect climate change, biodiversity, and sustainable land management.

Regional Adaptation Action

Adaptation initiatives and events anchored in the regional level have increasingly provided countries, subnational governments, and other stakeholders spaces and resources to consider and collaborate on region-specific challenges and solutions. This development in part reflects the growing acknowledgement that, while adaptation must be embedded in local contexts, the consequences of adaptation action, or a lack thereof, can transcend national borders.

To enhance the implementation of adaptation, more effectively bridge the global level to the national level, and create synergies across countries and regions, adaptation-specific regional events and processes have been launched under the UNFCCC in recent years. For example, in addition to global NAP Expos, the LEG also hosts regional NAP Expos to focus on how to advance the formulation and implementation of NAPs at the regional level. The LEG has also organized a number of regional workshops that provide technical adaptation support to LDCs.

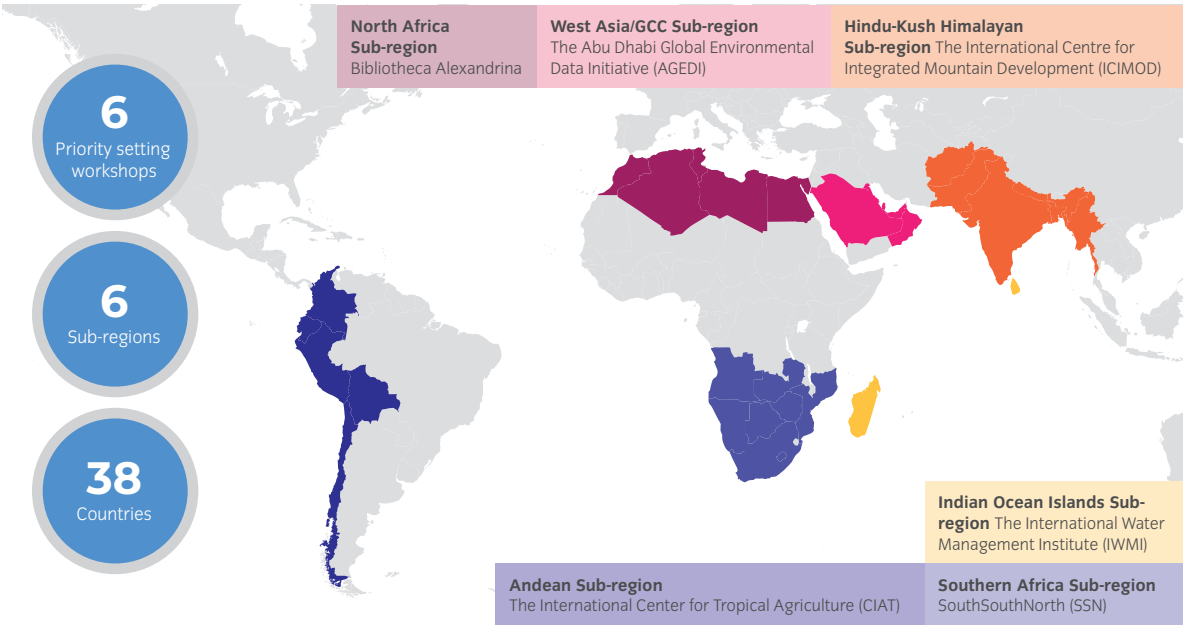
Yet another effort under the UNFCCC process that has regional dimensions is the Lima Adaptation Knowledge Initiative (LAKI)[58], which was launched in 2014 as a joint action pledge under the Nairobi work programme between the UNFCCC secretariat and UNEP through its Global Adaptation Network. The LAKI serves to help identify and prioritize adaptation knowledge gaps, and to catalyze action to bridge these gaps. Throughout its pilot phase from 2014–2018, the LAKI has focused its work on six sub-regions – namely, the Andean, North Africa, Southern Africa, West Asia, Indian Ocean Islands, and Hindu-Kush Himalayan sub-regions – where it identified 85 priority adaptation knowledge gaps (see figure 5).[59] The ongoing work of the LAKI includes building partnerships to bridge the priority knowledge gaps identified and scaling up the initiative to reach new subregions, with a focus on vulnerable developing countries such as LDCs, SIDS, and African States.

Further, following a review of the TEP-A in 2017, Parties and non-Party stakeholders were invited to organize regional technical expert meetings to explore specific finance, technology and capacity-building resources that can scale up climate action in regional contexts. At the time of publication, a total of 15 regional TEM-As have been held from 2018 to 2019. They have been hosted in several locations, including Uzbekistan, Republic of Korea, Japan, Singapore, the United Arab Emirates, Uruguay, the Philippines, the United Kingdom, Kenya, and Senegal. In many cases, these regional meetings have been hosted as a component of the Regional Climate Weeks, taking advantage of the existing gathering of adaptation experts and practitioners to delve into the regional dimensions of a given adaptation topic.

In addition, there are other regional initiatives and events under the UNFCCC process that are increasingly addressing adaptation. For example, the UNFCCC works with partners in various regions to combine climate change expertise with local knowledge and catalyze action through its regional collaboration centres (RCCs). The RCCs support national climate action through capacity-building, technical assistance and strategic networking, sourcing knowledge and resources to drive clean development.[60] Moreover, since 2017, the RCC's have helped organize Regional Climate Weeks,[61] which have been held in Africa, Latin-America and the Caribbean, and Asia-Pacific to facilitate a constructive exchange of knowledge and best practices related to the implementation of the Paris Agreement.

56. For more information about the NAP-GSP, see https://www.globalsupportprogramme.org/nap-gsp
57. For more information see www.riopavilion.org and the joint 2012 publication "The Rio Conventions – Action on Adaptation" available at https://unfccc.int/resource/docs/publications/rio_20_adaptation_brochure.pdf
58. For more information about the LAKI, see https://unfccc.int/topics/adaptation-and-resilience/workstreams/nairobi-work-programme-nwp/the-lima-adaptation-knowledge-initiative#eq-5
59. For a detailed report on the first phase of the LAKI, see https://www4.unfccc.int/sites/NWPStaging/Documents/LAKI_e-pub_2018.pdf
60. For more information about the RCCs, see https://unfccc.int/files/secretariat/regional_collaboration_centres/application/pdf/rcc_brochure_eng_final_2017.pdf
61. For more information about Regional Climate Weeks, https://www.regionalclimateweeks.org/

FIGURE 5:
First phase of the Lima Adaptation Knowledge Initiative



These have provided a venue to host regional TEM-As, and discuss and spark regional collaboration on various adaptation topics, ranging from climate-resilient agriculture and food systems to adaptation finance.

Around the world, beyond the UNFCCC process, there is a wide range of regional centres and networks, along with various international organizations working regionally, that are working on adaptation.[62] These centres and networks carry out several types of adaptation work, including on adaptation planning processes, vulnerability assessments, policy, communications and outreach, science and research, monitoring and evaluation, education and training, and more.

Leveraging Media to Broaden the Reach of Adaptation Knowledge and Resources

As attention paid to adaptation has increased under the UNFCCC, so too have efforts to share the adaptation-related products and resources emerging from the UNFCCC process with a wider audience. From reports published by the various constituted bodies working on adaptation to knowledge resources produced by Nairobi work programme partners, social media has proven a potent tool for disseminating this knowledge with interested individuals and organizations around the world who could use it to their benefit.

The UNFCCC secretariat currently maintains three social media accounts dedicated to adaptation:

1. The Adaptation Exchange Facebook Page regularly shares adaptation news, resources, and events with its audience of over 16,000 followers with the goal of stimulating collaboration, sharing, and networking on adaptation. It offers its readers a convenient avenue to keep up to date with the evolving research and on-the-ground work on adaptation. In recent years, the page has also begun streaming live discussions and addresses from UNFCCC adaptation-related events, helping to reach people around the world and engage them in the conversation around adaptation. Most recently this includes, for example, the high-level opening of Korea Global Adaptation Week, a panel on science for transformative adaptation and climate-resilient development, and discussions on financing adaptation and implementing adaptation finance.

2. Adaptation Exchange by the NWP (@AdaptXChange) shares a wide range of adaptation news and materials on Twitter, with a particular emphasis on amplifying the adaptation-related work undertaken by Nairobi work programme partners.

3. NAP Central (@NAP_Central) on Twitter actively disseminates information about new developments, ongoing events, and other relevant resources focused on NAPs and the LDCs.

62. See https://unfccc.int/process-and-meetings/bodies/constituted-bodies/adaptation-committee-ac/areas-of-work/regional-centres-and-networks#eq-1

Photo: UNDP CCA.

Beyond disseminating adaptation-related materials on various social media channels, greater efforts have also been made to transform the materials themselves into informative resources that are suitable to a wide range of audiences. For example, in 2014, on behalf of the Adaptation Committee, the UNFCCC secretariat released a documentary, titled *Adapting to a changing climate*, that introduces viewers to the topic of adaptation with stories of adaptation action and expert interviews. The documentary, which originated from the Adaptation Committee's first Adaptation Forum, is available in nine languages, including the six UN languages (Arabic, Chinese, English, French, Russian, and Spanish), and Portuguese, Bengali, and Hindi. Despite being released in 2014, the documentary is as relevant as ever and it continues to be consulted, and translated into other languages through external efforts, as an introductory resource for those looking to learn more about adaptation.

Gender-responsive Adaptation Approaches

Mainstreaming gender-responsive approaches to adaptation helps ensure that adaptation actions do not exacerbate existing inequalities and vulnerabilities, but rather give all stakeholders an equal voice in decision-making and address the needs of those who are most vulnerable to the adverse impacts of climate change. Efforts to embed gender-responsive planning and action into adaptation, and into climate change action more broadly, have been amplified in recent years. In 2014, the COP established the Lima work programme on gender, which was initially created for a period of two years to promote gender balance and achieve gender-responsive climate policy. To make further progress in this area, the Lima work programme on gender was extended at the conclusion of the initial two-year period by an additional three years. Noting the enduring necessity to strengthening gender-responsive approaches in all adaptation, means of implementation, and mitigation activities, the COP in 2017 adopted the gender action plan. The gender action plan "seeks to advance women's full, equal and meaningful participation and promote gender-responsive climate policy and the mainstreaming of a gender perspective in the implementation of the Convention and the work of Parties, the secretariat, United Nations entities and all stakeholders at all levels."[63] To achieve this overarching goal, the gender action plan outlines five priority areas (see box 5 for more information).

BOX 5:

Priority Areas of the UNFCCC Gender Action Plan

1. **Capacity-building, knowledge-sharing and communication**: enhancing the understanding and expertise of stakeholders on the systematic integration of gender considerations and the application of such understanding and expertise in the thematic areas under the Convention and the Paris Agreement, and in policies, programmes and projects on the ground

2. **Gender balance, participation and women's leadership**: achieving and sustaining the full, equal and meaningful participation of women in the UNFCCC process

3. **Coherence**: strengthening the integration of gender consideration within the work of UNFCCC bodies, the secretariat and other UN entities and stakeholders toward the consistent implementation of gender-related mandates and activities

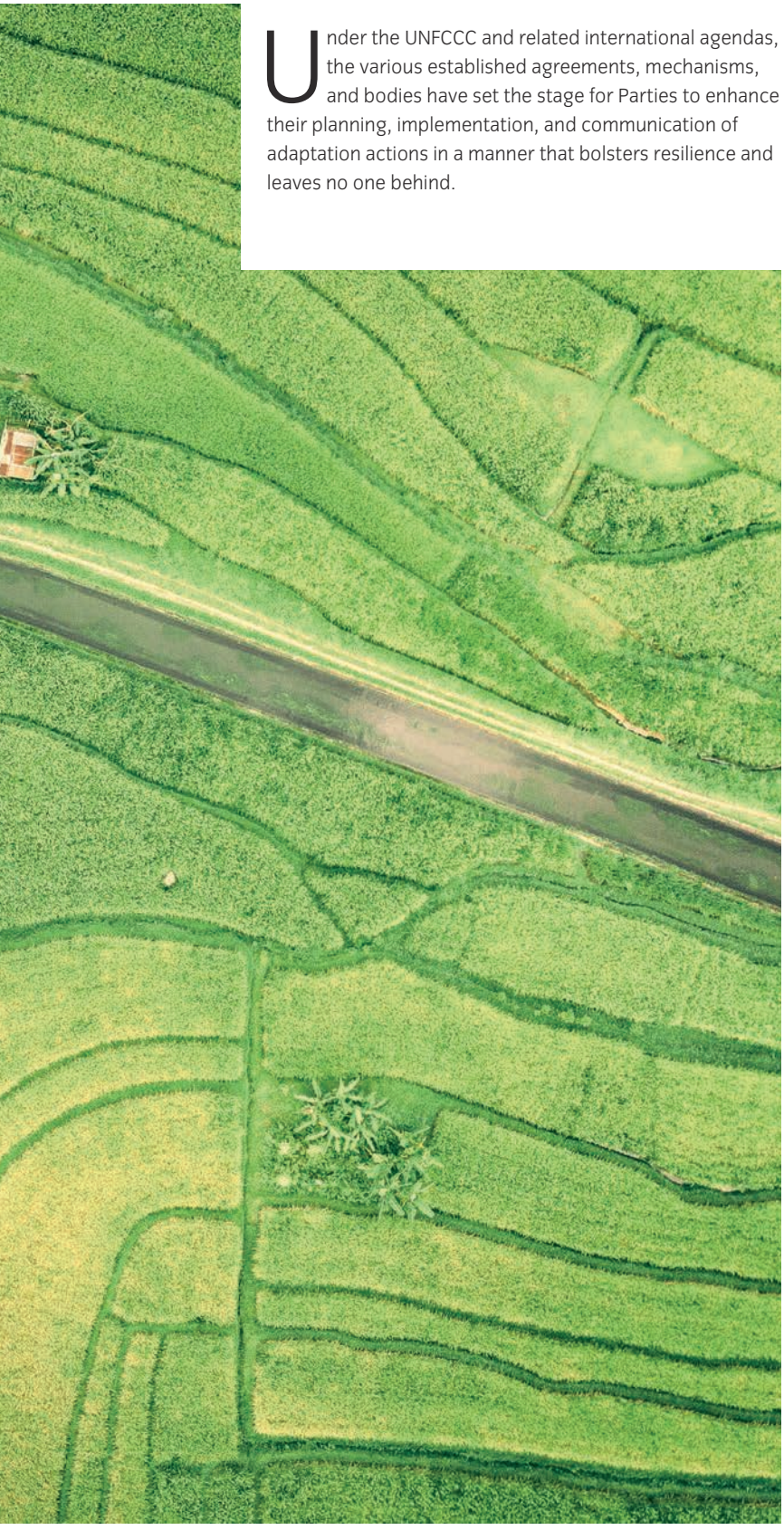
4. **Gender-responsive implementation and means of implementation**: ensuring the respect, promotion and consideration of gender equality and the empowerment of women in the implementation of the Convention and the Paris Agreement.

5. **Monitoring and reporting**: improving tracking in relation to the implementation of and reporting on gender-related mandates under the UNFCCC

63. See https://unfccc.int/resource/docs/2017/cop23/eng/11a01.pdf#page=13

Photo: Ivan Bandura – Unsplash.

Looking Ahead



Under the UNFCCC and related international agendas, the various established agreements, mechanisms, and bodies have set the stage for Parties to enhance their planning, implementation, and communication of adaptation actions in a manner that bolsters resilience and leaves no one behind.

Article 14 of the Paris Agreement established the global stocktake, a cyclical mechanism to review progress and enhance action and support to help steer the world towards low-emissions, resilient development pathways. More precisely, under the global stocktake, the CMA is required to periodically take stock of the implementation of the Paris Agreement and to assess collective progress towards achieving the purpose of the Agreement and its long-term goals. The global stocktake shall be conducted in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support, and in light of equity and the best available science. In 2023, the first global stocktake will be undertaken by the CMA; the process will then be repeated every five years thereafter.

In the case of adaptation, the global stocktake will fulfill a range of objectives that together will help elucidate what Parties have achieved in the realm of adaptation – including by recognizing the efforts of developing country Parties and reviewing the adequacy and effectiveness of adaptation and support – and will shed light on the scale and success of those efforts. For more on the specific functions of the global stocktake for adaptation, see box 6; for a basic overview of how the global stocktake will work, see figure 6. When embarking on the process of the

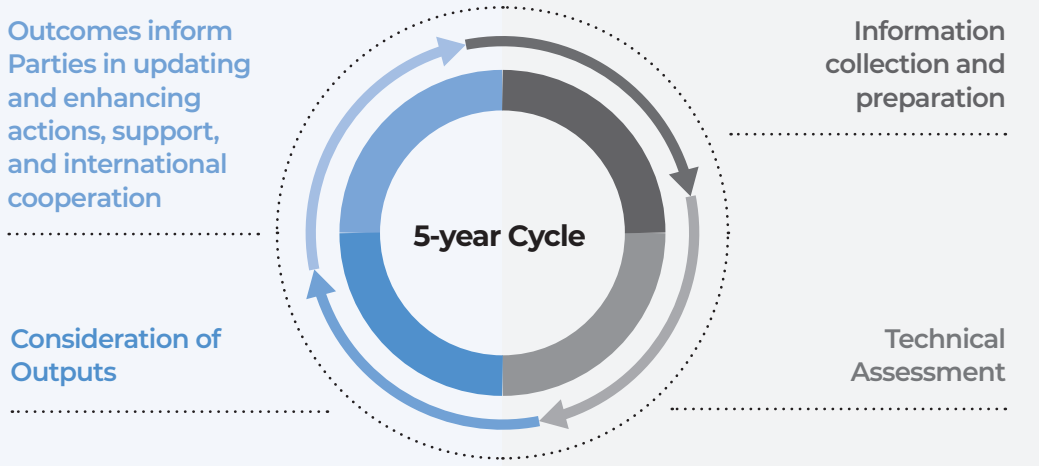
BOX 6:

The global stocktake and adaptation

In relation to adaptation, the global stocktake shall, among other things:

1. Recognize the adaptation efforts of developing country Parties;
2. Enhance the implementation of adaptation action taking into account the adaptation communication;
3. Review the adequacy and effectiveness of adaptation and support provided for adaptation; and
4. Review the overall progress made in achieving the global goal on adaptation.

FIGURE 6:
Adaptation in the Global Stocktake



In relation to adaptation, the global stocktake will:

- Recognize the adaptation efforts of developing countries
- Enhance the implementation of adaptation action
- Review the adequacy and effectiveness of adaptation action and support
- Review overall progress made in achieving the global goal on adaptation

Sources of input include:

- Party reports and communications (e.g. Adaptation Communications and BTRs)
- Latest IPCC reports
- Reports from subsidiary bodies
- Reports from relevant constituted bodies and forum and other institutional arrangements
- Synthesis reports by the UNFCCC Secretariat
- Relevant reports from UN agencies and other IGOs
- Voluntary submissions from Parties
- Relevant reports from regional groups and institutions
- Submissions from non-Party stakeholders and UNFCCC observer organizations

global stocktake, the predominant question Parties will be tackling in relation to adaptation is "**how do we assess overall progress towards global adaptation and resilience building?**"

Achieving these objectives will require the consideration of a medley of inputs prepared by various stakeholders. Related to adaptation, both the secretariat and relevant constituted bodies and forums – including the Adaptation Committee – will prepare synthesis reports for the technical assessment phase of the global stocktake. Topics covered in these reports will include, among other areas, the state of adaptation efforts, support, experience and priorities; efforts to enhance understanding, action and support related to averting, minimizing and addressing loss and damage associated with the adverse effects of climate change; barriers and challenges, including finance, technology and capacity-building gaps faced by developing countries; and good practices, experience and potential opportunities to enhance international cooperation on adaptation and to increase support. In addition to these reports by the constituted bodies and the secretariat, sources of input to the global stocktake will also include reports and communications from Parties, IPCC reports, relevant reports from UN agencies and other international organizations, relevant reports from regional groups and institutions, and submissions from UNFCCC observer organizations and other non-Party stakeholders.

At the conclusion of each global stocktake, the outcome will inform Parties as they update and enhance, in a nationally determined manner, their actions and support under the Paris Agreement. It will also serve to inform Parties in enhancing international cooperation for climate action. In this way, the global stocktake will help ensure that Parties are on track to achieving the goals enshrined in the Agreement and progressively stepping up their commitments to that end.

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