

Navigating the landscape of support for the process to formulate and implement national adaptation plans

2022 Overview



United Nations
Climate Change

Navigating the landscape of support for the process to formulate and implement national adaptation plans

2022 Overview

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CONTENTS

FOREWORD by the Co-Chairs of the Adaptation Committee.....	2
List of abbreviations	3
1 INTRODUCTION.....	4
2 THE LANDSCAPE OF SUPPORT AVAILABLE FOR THE PROCESS TO FORMULATE AND IMPLEMENT NATIONAL ADAPTATION PLANS	6
2.1 Guidelines	7
2.1.1 Guidelines for the process to formulate and implement NAPs	7
2.1.2 Supplements to the NAP technical guidelines by specialized organizations	8
2.2 Systematic observation, science and climate services	9
2.2.1 Systematic observation	9
2.2.2 Science	12
2.2.3 Assessment and climate services	13
2.3 Information and knowledge	16
2.3.1 Programmes and platforms under the UNFCCC	16
2.3.2 Programmes and platforms outside the UNFCCC process	20
2.4 Finance	21
2.4.1 Financial support under the UNFCCC	22
2.4.2 Financial support outside of the UNFCCC process	26
2.4.2.1 Domestic finance	26
2.4.2.2 Bilateral finance	27
2.4.2.3 Multilateral finance	28
2.4.2.4 Private finance	33
2.5 Capacity-building and technical support	35
2.5.1 Capacity-building and technical support under the UNFCCC	36
2.5.2 Capacity-building and technical support outside of the UNFCCC process	39
2.6 Technology development and transfer	43
2.6.1 Facilitation of technology development and transfer under the UNFCCC	43
2.6.2 Facilitation of technology development and transfer outside of the UNFCCC process	47
3 CONCLUDING REMARKS	50
ANNEX 1: MAIN STEPS UNDER EACH OF THE ELEMENTS OF THE PROCESS TO FORMULATE AND IMPLEMENT NATIONAL ADAPTATION PLANS	51
ANNEX 2: SUPPLEMENTS TO THE TECHNICAL GUIDELINES FOR THE PROCESS TO FORMULATE AND IMPLEMENT NATIONAL ADAPTATION PLANS (AS OF MARCH 2022)	52
ANNEX 3: MEMBERS OF THE ADAPTATION COMMITTEE IN 2021/2022	54



FOREWORD

by the Co-Chairs of the Adaptation Committee

In 2010, the COP of the UNFCCC established the process to formulate and implement national adaptation plans to enable countries to identify medium- and long-term adaptation needs and to develop and implement strategies and programmes to address those needs.

The process provides countries with the unique opportunity to integrate their existing and future adaptation efforts into one comprehensive approach that is coherent, iterative and country-driven.

To date 38 developing countries have submitted a completed NAP to the UNFCCC secretariat and most others have taken steps towards formulating and implementing their NAPs, albeit at different stages.

Commensurate with the magnitude of the process the support needs of developing countries are large and diverse. At the same time, the range of support available to them has greatly expanded over the years and now counts with an extensive number of opportunities in all areas of support – from more detailed and specific guidelines and the sharing of data, information and knowledge to the provision of capacity-building, technology development and transfer and finance. It is promising to see that many providers of support have aligned their strategies and portfolios to meet the communicated and expected needs of countries in formulating and implementing their NAPs.

With this publication the Adaptation Committee intends to assist countries in navigating the broad landscape of support that is available to them. It is an update of the Committee's report on "Navigating the landscape of support for the process to formulate and implement national adaptation plans" published in 2015.

Mindful of the rapidly evolving support needs and respective opportunities the publication is complemented by an online information source through which updated information on available support will be provided on a continuous basis. This way the Adaptation Committee intends to contribute towards accelerating the formulation and implementation of NAPs in all developing countries.

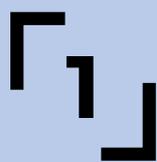
Ms. Mariam Allam
Co-Chair of the
Adaptation Committee

Ms. Shella Biallas
Co-Chair of the
Adaptation Committee



LIST OF ABBREVIATIONS

AC	Adaptation Committee
ADB	Asian Development Bank
AF	Adaptation Fund
AFCIA	Adaptation Fund Climate Innovation Accelerator programme
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
AKP	Adaptation Knowledge Portal
ASAP	Adaptation for Smallholder Agriculture Programme
BDRP	Business Development for Resilience Program
CGE	Consultative Group of Experts
CIFs	Climate Investment Funds
CSIRO	Commonwealth Scientific and Industrial Research Organization
CTCN	Climate Technology Centre and Network
C3S	Copernicus Climate Change Service
COP	Conference of the Parties
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
FAO	Food and Agriculture Organization of the United Nations
GAN	Global Adaptation Network
GCF	Green Climate Fund
GCOS	Global Climate Observing System
GEF	Global Environment Facility
GEO	Group on Earth Observation
GEOS	Global Earth Observation System of Systems
GFCS	Global Framework for Climate Services
GIZ	Deutsche Gesellschaft fuer Internationale Zusammenarbeit
GWP	Global Water Partnership
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDBG	Inter-American Development Bank Group
IFAD	International Fund for Agriculture and Development
IFC	International Finance Corporation
IGAD	African Intergovernmental Authority on Development
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
IsDB	Islamic Development Bank
LDCF	Least Developed Countries Fund
LDC	Least Developed Country
LEG	Least Developed Countries Expert Group
LoCAL	Local Climate Adaptive Living Facility
MDB	Multilateral Development Bank
M&E	Monitoring and evaluation
NAP	National adaptation plan
NAPA	National adaptation programme of action
NASA	National Aeronautics and Space Administration
NDA	National designated authority
NDC	Nationally determined contribution
NDE	National designated entity for the development and transfer of technologies
NIE	National implementing entity
NMHSS	National Meteorological and Hydrological Services
NWPP	Nairobi Work Programme on impacts, vulnerability and adaptation to climate change
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PPCR	Pilot Programme for Climate Resilience
RCC	Regional climate centre
SCCF	Special Climate Change Fund
SIDS	Small Island Developing States
SPCR	Strategic Programme for Climate Resilience
TEC	Technology Executive Committee
TNA	Technology Needs Assessment
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP CCC	UNEP Climate Change Centre
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
WASP	World Adaptation Science Programme
WCRP	World Climate Research Programme
WCSP	World Climate Services Programme
WHO	World Health Organization
WMO	World Meteorological Organization
WTO	World Trade Organization



INTRODUCTION

In 2010, the COP of the UNFCCC established the process to formulate and implement national adaptation plans with the objectives to reduce countries' vulnerability to the impacts of climate change and to facilitate the integration of climate change adaptation into relevant new and existing policies, programmes and activities. It is a continuous and progressive process that shall enable countries to identify medium- and long-term adaptation needs and to develop and implement - in a coherent, iterative and country-driven manner - strategies and programmes to address those needs. NAPs also help countries strengthen the adaptation-related elements of their nationally determined contributions as part of the implementation of the Paris Agreement.

Mindful of the financial, technical and capacity needs of the developing countries to formulate and implement NAPs, the COP has mandated and called for a broad range of support from developed country Parties, constituted bodies under the Convention, the operating entities of the Financial Mechanism of the Convention and the Paris Agreement and national and regional centres and networks as well as from UN organizations, specialized agencies, bilateral and multilateral agencies and other relevant organizations.

As of July 2022, 38 developing countries had submitted a NAP to the UNFCCC secretariat. In addition, nearly all developing countries have taken steps towards formulating and implementing a NAP, albeit at different stages.¹

In parallel, several targeted support programmes and initiatives have been established to specifically support the developing countries in formulating and implementing their NAPs and other existing adaptation support mechanisms have aligned their processes and portfolios with the same objective. Furthermore, countries can tap into the vast overall landscape of support that is available for the different aspects of adaptation planning and implementation in accordance with their individual needs.

This publication provides an overview of the landscape of support available for adaptation and of the targeted programmes and initiatives that have been set up to facilitate the formulation and implementation of NAPs. It is structured around six different categories of support: “Guidelines”, “Systematic observation, science and climate services”, “Information and knowledge”, “Finance”, “Capacity-building and technical support”, and “Technology development and transfer”. It updates and complements the information contained in the Adaptation Committee's report on “[Navigating the landscape of support for the process to formulate and implement national adaptation plans](#)” published in 2015.

As the support needs of different countries at different stages of the process to formulate and implement NAPs vary and will continue to evolve, the landscape of available support will also adapt to those needs. In light of the dynamic nature of the provided support,

¹ UNFCCC, 2021. Progress in the process to formulate and implement national adaptation plans - Note by the secretariat. Available at <https://unfccc.int/documents/307686>.



this publication is complemented by an online information source on which the information on available support will be

updated more frequently and more flexibly. The online information source is available at unfccc.int/napsupport.

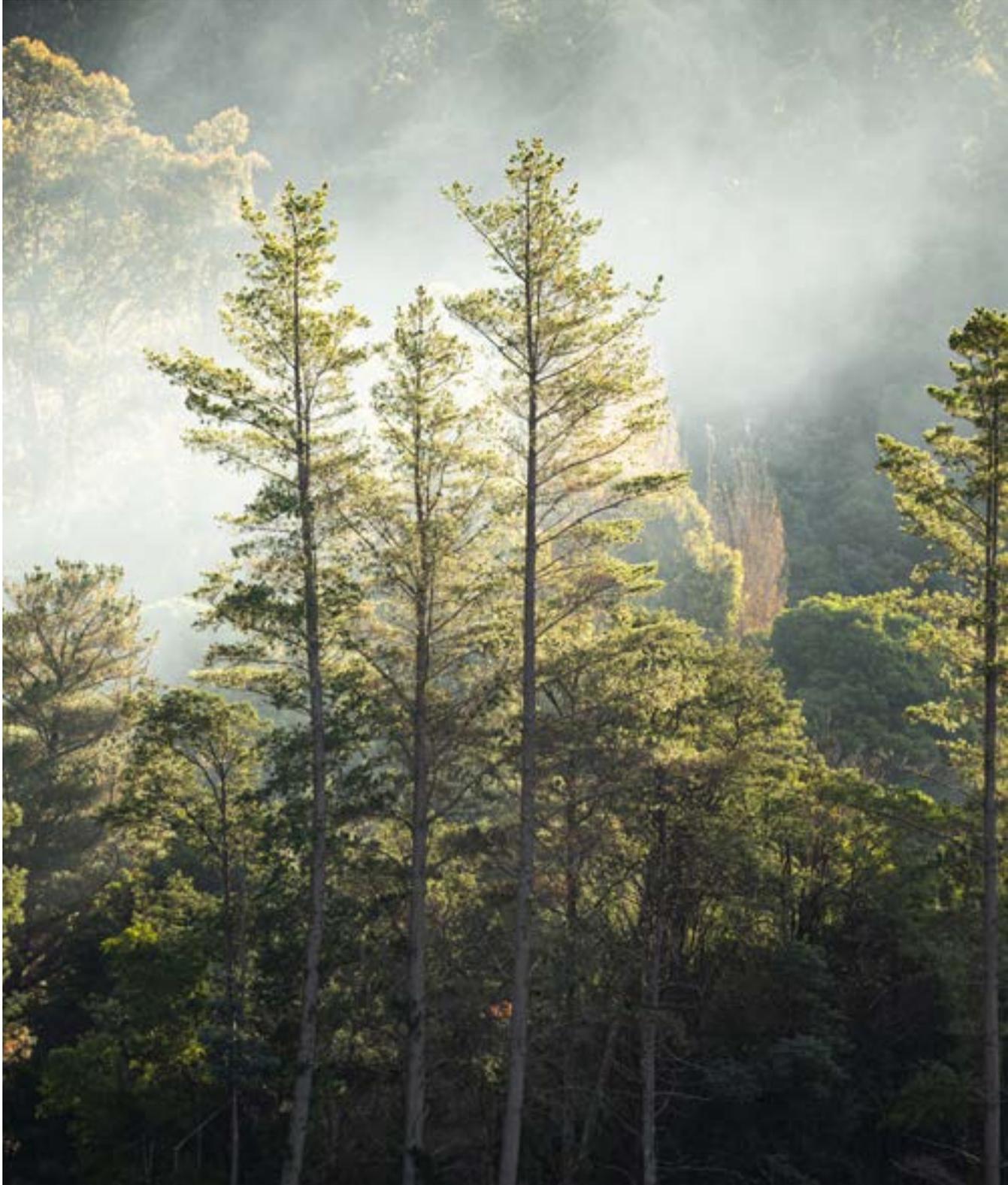
Foreword

Introduction

Navigating the landscape of support for NAPs

Concluding remarks

Annex



Matt Palmer/Unsplash



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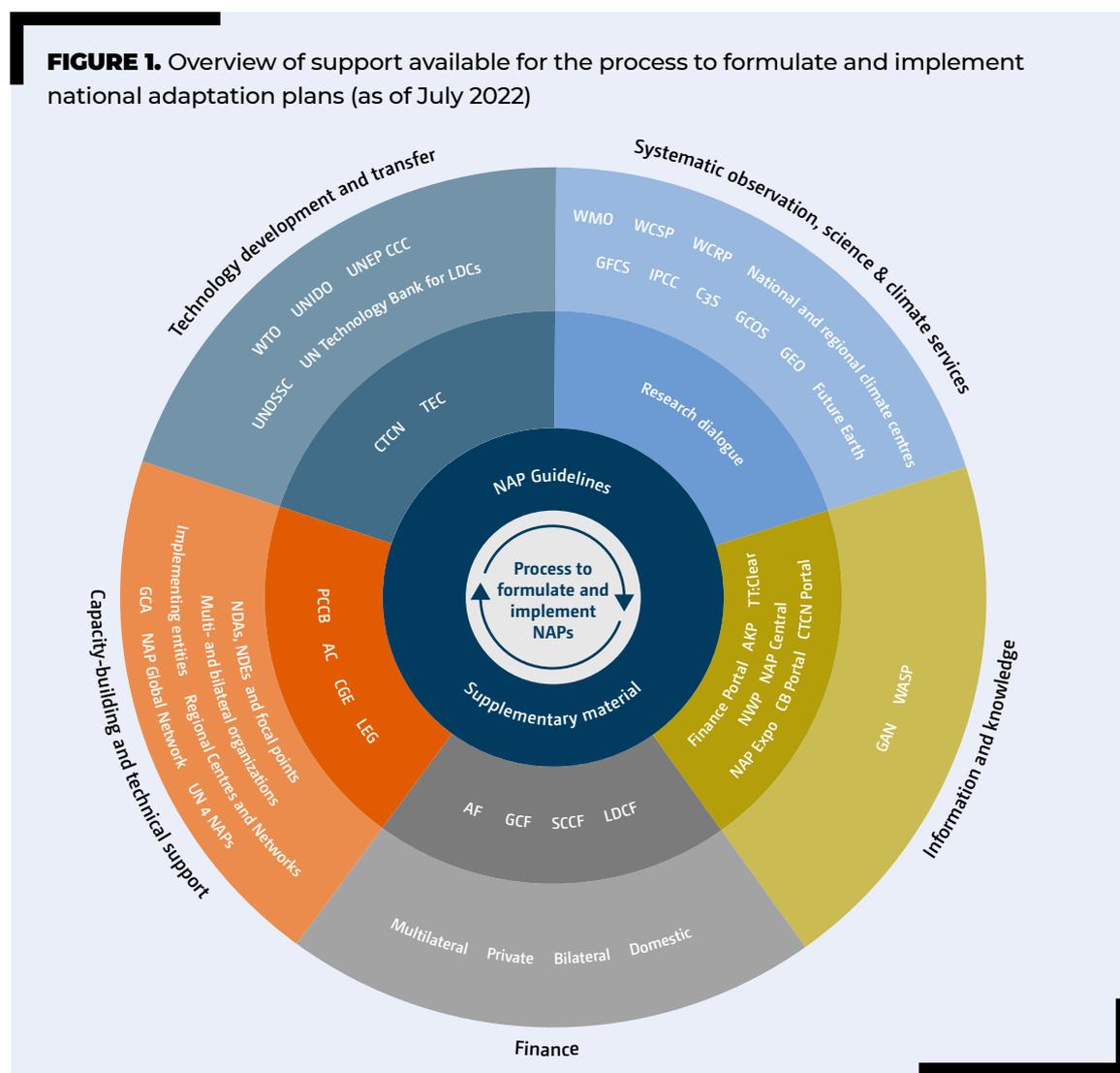
THE LANDSCAPE OF SUPPORT AVAILABLE FOR THE PROCESS TO FORMULATE AND IMPLEMENT NATIONAL ADAPTATION PLANS

Support for the process to formulate and implement NAPs is provided in response to specific mandates and provisions under the Convention and the Paris Agreement as well as by domestic, bilateral, multilateral and private institutions and actors that provide NAP and adaptation-relevant assistance outside the scope of these provisions. The support is available in the form of guidelines; systematic observation, science and climate services; the provision and

sharing of information and knowledge; finance; capacity-building and technical support; and technology development and transfer (figure 1).

Despite being described in distinct sections in this publication, many of the categories of support overlap. As a result, many of the entities described under one category of support in reality provide several types of support in parallel.

FIGURE 1. Overview of support available for the process to formulate and implement national adaptation plans (as of July 2022)



Foreword

Introduction

Navigating the landscape of support for NAPs

Concluding remarks

Annex

Guidelines

Systematic observation, science and climate services

Information and knowledge

Finance

Capacity-building and technical support

Technology development and transfer



2.1 Guidelines

2.1.1 Guidelines for the process to formulate and implement NAPs

In 2011 the COP agreed on the [initial guidelines](#) for the formulation of NAPs which structure the process into four elements:

a. Laying the groundwork and addressing gaps;

b. Preparatory elements;

c. Implementation strategies;

d. Reporting, monitoring and review.

Together with the guiding principles defined by the COP, these four elements provide an overall framing of the formulation and implementation of NAPs (see figure 2).



Foreword

Introduction

Navigating the landscape of support for NAPs

Concluding remarks

Annex

Guidelines

Systematic observation, science and climate services

Information and knowledge

Finance

Capacity-building and technical support

Technology development and transfer



With a view to further elaborating each of the four elements, the COP mandated the LEG to develop technical guidelines for NAPs based on the initial guidelines.² These were published in 2012 and are available in five languages. They propose steps as well as indicative activities to be undertaken under each of the four elements (see annex I) and also provide ways of clustering them into workstreams. Countries can choose those steps that add value to their existing planning processes and sequence NAP activities based on their needs. A set of guiding questions is available under each of the proposed steps which may assist countries in identifying their needs and in planning respective activities. The guidelines also offer many useful references as well as good practice examples from countries that have already undertaken some of the proposed steps and activities.

In order to facilitate the navigation of the technical guidelines and the process to formulate and implement NAPs, the LEG has published additional information materials such as overview publications and a poster.

FURTHER INFORMATION

UNFCCC. Decision 5/CP.17, Annex.

Initial and technical guidelines as well as additional material by the LEG is available at <https://unfccc.int/topics/adaptation-and-resilience/workstreams/national-adaptation-plans-naps/guidelines-for-national-adaptation-plans-naps>.

NAP Central.

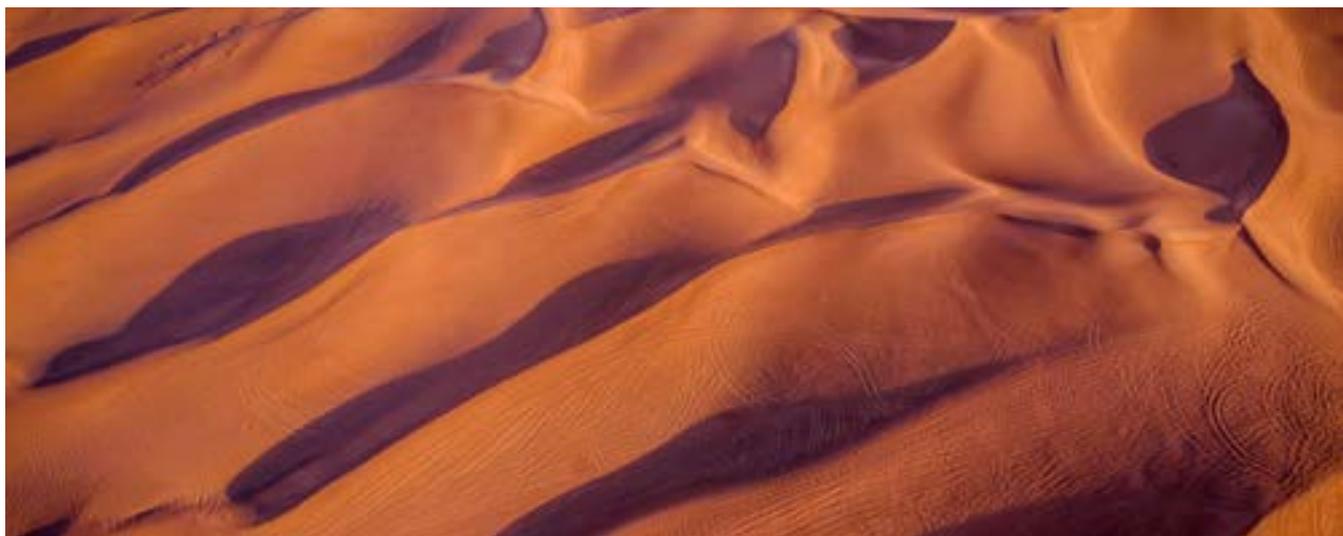
2.1.2 Supplements to the NAP technical guidelines by specialized organizations

The technical guidelines for the formulation and implementation of NAPs have, over time, been complemented by supplements that offer in-depth tools, approaches or quality criteria for selected steps or thematic areas of the process. They cover areas such as biodiversity, ecosystems, health, disaster risk reduction, gender, water, agriculture, fisheries, forestry, indigenous knowledge, urban and human settlements and climate services. They also include guidance on how specific elements or steps of formulating and implementing NAPs may be undertaken, such as the stocktaking, the financial planning, or the monitoring and evaluation.

These materials are being prepared by organizations with specific expertise and experience in these areas and in coordination with the LEG. A list of available supplements as of March 2022 is available in annex 2.

FURTHER INFORMATION

[Supplements to the NAP technical guidelines for the formulation and implementation of NAPs.](#)



Walid Ahmad/Pexels

² LEG. 2012. National adaptation plans: technical guidelines for the national adaptation plan process. Bonn: UNFCCC. Available at <https://www.unfccc.int/sites/NAPC/Guidelines/Pages/Technicalguidelines.aspx>.



2.2 Systematic observation, science and climate services

Analyzing climate and socio-economic data to identify and monitor evolving vulnerabilities and risks is an integral part of the process to formulate and implement NAPs. Many countries, in particular LDCs, have reported that data, information and capacity gaps constrain this exercise. On the other hand, a large network of organizations and programmes has emerged that generates and processes climate data from global to local scales and helps to close existing gaps through further research and data sharing. The organizations can be grouped into those that primarily contribute to the global observation of climate variables, those that stimulate and coordinate further science and research in this regard, and those that assess the meaning of observed data for further policy making. Many of these organizations also offer trainings to developing countries to support them in generating, managing and interpreting climate data and provide climate services that assist countries in applying climate information in support of decision-making.³ The organizations and networks are manifold and often overlap in terms of membership, sponsors or joint programmes. The following sections provide a snapshot of them.

2.2.1 Systematic observation

The World Meteorological Organization

The WMO was established in 1950 and is a specialised agency of the United Nations. It provides leadership and expertise in international cooperation in the delivery and use of high-quality, authoritative weather, climate, hydrological and related environmental services by its members. It is the key driver of many of the networks and programmes described in the sections below and has

adopted a range of global standards, technical regulations and supplementary guides for carrying out observations that meet the quality standards required for open data sharing and the interoperability of observational systems.

A major contribution of the WMO to the observation and use of climate-related data is its coordinating function with regard to data producing systems and centres that are responsible for climate monitoring, analysis and prediction at national, regional and global scales. In conjunction with national and regional climate outlook forums these systems and centres play a vital role in the exchange of data and information. Climate outlook forums are gatherings of climate experts, policymakers and sectoral practitioners that together produce climate outlooks and discuss their likely impacts on key economic sectors. As such they provide a platform for data producers to interpret their products jointly with end users and for the end users to communicate further data needs. Such a coordinated approach serves as an important basis for the effective use of climate information for adaptation planning and implementation and are a good networking opportunity for NAP practitioners (see figure 3). In this regard they also play a crucial role in the context of climate services (see section 2.2.3).

The WMO also offers education and training programmes with a focus on capacity-building necessary for well-functioning meteorological, hydrological and climate services.

FURTHER INFORMATION

[World Meteorological Organization.](#)

[WMO Capacity-development and education and training programmes.](#)

WMO and GCF. 2021. Developing the Climate Science Basis for Climate Action. Geneva. Available at https://library.wmo.int/doc_num.php?explnum_id=10834.

[WMO Guide to Climatological Practices.](#)

³ A good overview on the needs for and provision of data for adaptation, including relevant organizations that provide services, is contained in: Adaptation Committee. 2020. Data for adaptation at different spatial and temporal scales. Technical paper. Available at <https://unfccc.int/documents/267555>.



National and regional climate centres

NMHSs form the basis of global climate monitoring and analysis since they are the official authoritative source, and often the single source, as well as the guardians of weather and climate data obtained through networks of in situ measurement stations in their respective countries. According to the [WMO Guide to Climatological Practice](#) NMHSs must be able to anticipate, investigate and understand the needs for climatological information among government departments, research institutions and academia, commerce, industry and the general public; promote and market the use of the information; make available its expertise to interpret the data; and advise on the use of the data.

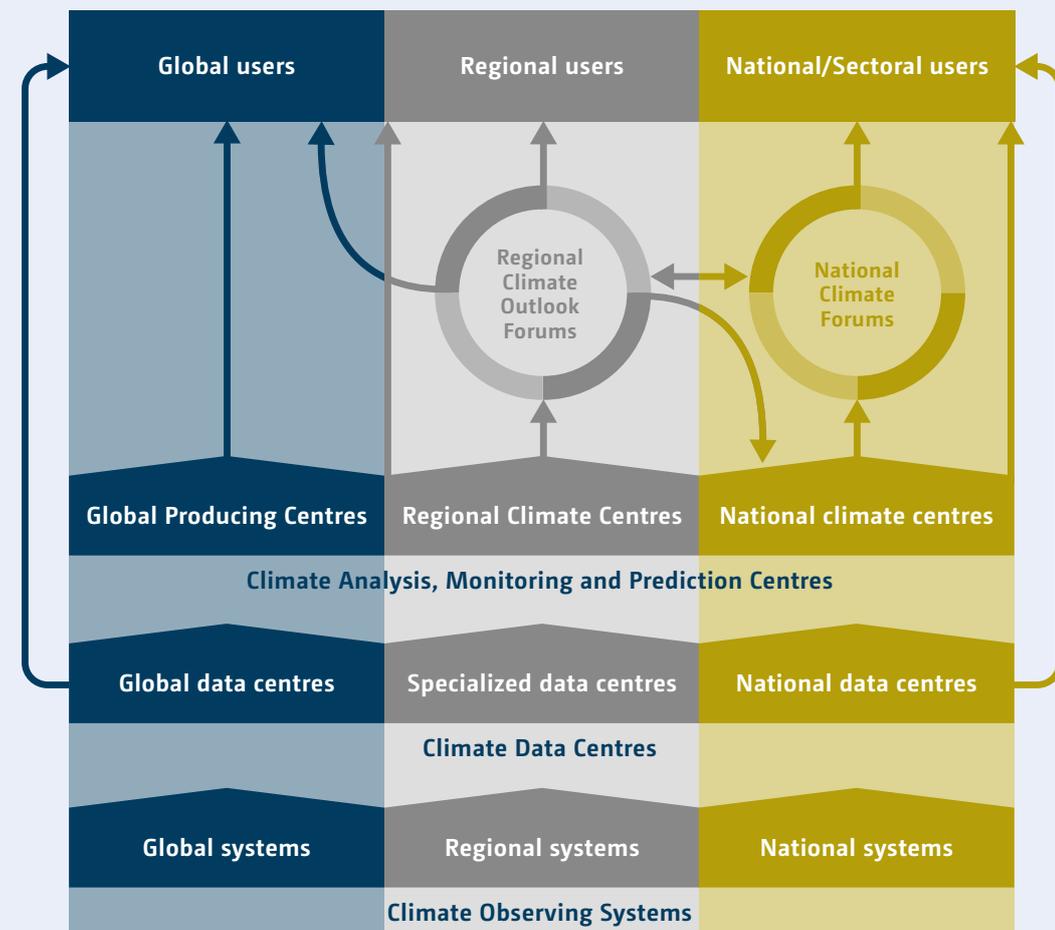
NMHSs provide their data to regional and global data centres for archiving and further processing. Regional or specialized climate centres (RCCs) are centres of excellence designated by WMO to strengthen the capacity of WMO members in a given region to deliver better climate services to national users. They are also encouraged to take up non-operational data services such as coordination, training and capacity building, and research and development.

As a result, NMHSs and RCCs should serve as the primary contact points for NAP practitioners and sources of NAP-relevant climate data, information and advice.

FURTHER INFORMATION

- [WMO National Meteorological and Hydrological Services.](#)
- [WMO Regional Climate Centres.](#)

FIGURE 3. Data and information exchange as part of the Climate Service Information System (CSIS) of the Global Framework for Climate Services



Source: Presentation by the WMO on the CSIS available at <https://gfcs.wmo.int/sites/default/files/Rupa%20Kumar%20Kolli%20CSIS.pdf>.

Foreword

Introduction

Navigating the landscape of support for NAPs

Concluding remarks

Annex

Guidelines

Systematic observation, science and climate services

Information and knowledge

Finance

Capacity-building and technical support

Technology development and transfer



The Global Climate Observing System

The GCOS programme, established in 1992, promotes the taking of needed observations by national or international organizations for their own interests as well as for common goals (e.g. under the UNFCCC). The GCOS programme does not directly make observations nor does it generate data products. Its overarching aim is to ensure that the observations and information needed to address climate-related issues (e.g. data, climate services, adaptation and climate indicators) are obtained and made available to all potential users. To that end, it regularly assesses the status of global climate observations of the atmosphere, land and ocean and produces guidance for its improvement.

Through its Cooperation Mechanism GCOS also offers focused capacity-building and improvement of infrastructure in least developed countries and small island developing states in order to support critical networks. In some cases, the mechanism also provides funding to cover operating expenses of these networks.

FURTHER INFORMATION

[Group on Earth Observation.](#)
[Global Climate Observing System.](#)
[GCOS Cooperation Mechanism.](#)

The Group on Earth Observation

The GEO, established in 2005, is a partnership of more than 100 national governments and more than 100 participating organizations that improves the availability, access and use of Earth observations to support climate action, disaster risk reduction, and sustainable development. In addition to over 60 Work Programmes,⁴ activities and initiatives that address global needs, coordination and knowledge gaps, the GEO community is creating a Global Earth Observation System of Systems. This is to better integrate observing systems and share data by connecting existing

infrastructures and using common standards, which has already made accessible more than 400 million open Earth observation data and information resources on a single internet access point. Here, users are able to find data, imagery and analytical software packages relevant to all parts of the globe and are provided with reliable, up-to-date and user-friendly information.

The GEO has also established four regional initiatives (Africa, Americas, Asia-Oceania and Europe) which provide regional data resources and promote collaboration and coordination among the GEO members of the particular region.

In addition, through its flagships, initiatives and regional GEOs, GEO supports institutional strengthening via online and local training, webinars and other mechanisms. The goal is to help share new knowledge, skills and insights to assist developed and developing countries and regions to make full use of Earth observations for research, policy development, decision making and action.

FURTHER INFORMATION

[Group on Earth Observation.](#)
[GEOSS Portal.](#)
[GEO's Capacity Development.](#)

The Copernicus Climate Change Service

The C3S, established in 2014, is a component of the Copernicus Earth Observation Programme of the European Union and provides authoritative information about the past, present and future climate in Europe and the rest of the world. It offers free and open access to climate data and information on a range of topics and sectoral areas. It also offers tools to turn data into relevant products that support adaptation and mitigation strategies by policymakers and businesses.

FURTHER INFORMATION

[Copernicus Climate Change Service.](#)

4 2020–2022 GEO Work Programme. Available at https://www.earthobservations.org/geoss_wp.php.



2.2.2 Science

UNFCCC Research Dialogue

The Subsidiary Body for Scientific and Technological Advice has mandated the UNFCCC secretariat to organize annual forums to exchange information for supporting work on research and systematic observation. One of these forums is the research dialogue which is held annually in May/June in conjunction with the first sessional period between Parties and regional and international climate change research programmes and organizations as well as the Intergovernmental Panel on Climate Change.

Each research dialogue provides the opportunity for participating organizations and programmes to share information on developments in research activities relevant to the needs of the Convention as well as for Parties to communicate their views on further research needs and priorities. The information can also be communicated via submissions beforehand. The dialogues are organized around particular themes and the agenda, presentations as well as a summary note are published on the UNFCCC website.

FURTHER INFORMATION

[UNFCCC Research Dialogue.](#)

The World Climate Research Programme

The WCRP, established in 1980, aims at determining the predictability of the climate and the effect of human activities on it. Through the past 40 years, it has implemented a large number of major research and Coupled Model Intercomparison Projects through which it has addressed frontier scientific questions related to the coupled climate system which would have been too large and too complex to be tackled by a single nation, agency or scientific discipline. Through international science coordination and partnership among thousands of researchers, the WCRP contributes to advancing the understanding of the multi-scale dynamic interactions between natural and social systems that affect climate.

The WCRP has established a particular framework (CORDEX) to evaluate regional climate model performance through a set of experiments aiming at producing regional climate projections through climate downscaling.

FURTHER INFORMATION

[World Climate Research Programme.](#)

[Coordinated Regional Climate Downscaling Experiment \(CORDEX\).](#)

Future Earth

Future Earth is an international hub of scientists and innovators across disciplines and across the globe to coordinate new, interdisciplinary approaches to research that addresses the world's most pressing sustainability challenges. Originally founded in 2012 as a global initiative to strengthen the interface between policy and science, two of its main features that are relevant to the formulation and implementation of NAPs around the world are its global Knowledge-Action Networks as well as its Earth Targets Initiatives.

The Knowledge-Action Networks aim at generating the multifaceted knowledge needed to inform solutions for complex societal issues. Identified through a co-designed process that has involved researchers, societal partners from both public and private sectors as well as civil society the current Knowledge-Action Networks focus on the following eight themes: (i) Emergent risks and extreme events; (ii) Finance and economics; (iii) Health; (iv) Natural assets; (v) Ocean; (vi) Systems of sustainable consumption and production; (vii) Urban; and (viii) Water-energy-food nexus.

The Earth Targets Initiatives support businesses, cities and governments that want to develop local and global targets to help maintain Earth systems like land, water and biodiversity with the scientific guidance behind the target-setting and decision-making processes.

Besides benefitting from Future Earth's publications, NAP-related researchers, policy-makers, and practitioners can also get



directly involved in the work of Future Earth by becoming a member or by joining the Knowledge-Action Networks.

FURTHER INFORMATION

[Future Earth.](#)

[Knowledge-Action Networks.](#)

[Earth Targets Initiatives.](#)

[Joining Future Earth.](#)

mandate but it does not develop training programmes on its own.

FURTHER INFORMATION

[Intergovernmental Panel on Climate Change.](#)

[IPCC Data Distribution Centre.](#)

[IPCC Task Group on Data Support for Climate Change Assessments.](#)

[IPCC Sixth Assessment Report.](#)

2.2.3 Assessment and climate services

The Intergovernmental Panel on Climate Change

The IPCC, established in 1988, is the UN body for assessing the science related to climate change as a basis for climate-related policy making. It does not conduct its own research but determines the state of knowledge on climate change, its impacts and future risks, and options for adaptation and mitigation through its assessment reports. The Sixth Assessment Report, of which parts have been published in 2021 and early 2022 and others are forthcoming, contains chapters that focus on regional aspects of climate change, including on regional impact and risk assessments and regional projections, but also on the most recent scientific knowledge on impacts, risks and adaptation strategies, both at the global and regional scales. The IPCC has established a Data Distribution Centre which provides climate, socio-economic and environmental data, both from the past and also in scenarios projected to the future.

The IPCC Task Group on Data Support for Climate Change Assessments contributes to building capacity in the use of data and scenarios for climate-related research, particularly in developing and transition-economy regions and countries. It does this by providing guidance to the IPCC's Data Distribution Centre on curation, traceability, stability, availability and transparency of data and scenarios related to the reports of the IPCC and by encouraging activities such as expert meetings and liaison with relevant academic institutions to address the requirements of developing countries. To achieve this, the Task Group may work with organizations and activities that have training as their core

The Global Framework for Climate Services

The GFCS, established in 2009, is a UN-led initiative that seeks to enhance the quality, quantity and application of climate information in support of decision-making at national, regional and global levels.

Its services involve high-quality data from national and international databases on a selection of climate variables (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 socio-economic variables, such as agricultural production, health trends, population distributions in high-risk areas, and road and infrastructure maps for the delivery of goods.

One of its five components is a user interface platform, through which users can communicate their needs and ensure that climate services respond to them, thus promoting the co-production of knowledge between providers and end users.

The GFCS also provides capacity development to support the systematic development of the institutions, infrastructure and human resources needed for effective climate services. Priority is thereby given to climate-vulnerable developing countries.

The GFCS also facilitates regional workshops that address gaps and needs related to the development and application of climate services at the regional level, and defines respective implementation priorities.



Through national projects the GFCS is supporting the integration of climate services in NAPs and has produced a [supplement to the NAP technical guidelines](#) on climate services for supporting climate change adaptation.

FURTHER INFORMATION

[Global Framework for Climate Services.](#)

[GFCS implementation plan.](#)

[GFCS regional workshops.](#)

The World Climate Services Programme

The WCSP, established in 2011, contributes to improving the global availability and access to reliable climate data, monitoring and forecasts at various scales. It promotes the development of appropriate institutional mechanisms and operational infrastructure to generate, exchange and disseminate quality information on climate and provides guidance on related applications and services.

It has two components:

- The Climate Data and Monitoring component which provides international coordination of WMO Climate System Monitoring via networks of global, regional and national climate centres;
- The Climate Applications and Services component which fosters the effective application of climate knowledge and information for the benefit of society and the provision of climate services at the national level.

It serves as the WMO vehicle for implementing parts of the User Interface Platform of the Global Framework for Climate Services (see above).

FURTHER INFORMATION

[World Climate Services Programme.](#)

Other climate service providers

Other providers of climate services include, for example, some regional and/or research organizations. These turn their scientific data into actionable knowledge and make it available to the

general public in their region or around the world to facilitate climate-related decision-making.

The [Caribbean Community Climate Change Centre](#) has worked since its inception with various partners to develop a suite of tools to help users in the region in climate-resilient decision making. Examples include the installation and use of the PRECIS model to develop regionally downscaled climate scenarios and the development of the Caribbean Climate Online Risk and Adaptation tool which is an online support system for understanding climate influence and applying climate risk management processes.

The [Commonwealth Scientific and Industrial Research Organization](#) - Australia's national science agency - in collaboration with the Asian Development Bank, Griffith University and the Government of Japan, has developed a climate data and information portal for the Asia-Pacific region – the Regional Climate Consortium for Asia and the Pacific. It provides detailed guidelines and examples along with climate data-sets which together help in building the capacity of regional stakeholders to independently identify climate change impacts and subsequently incorporate the findings into adaptation and resilience planning.

The [African Intergovernmental Authority on Development](#) has established the Climate Prediction and Applications Centre which is a regional climate centre of excellence that provides climate services to eleven East African Countries. It maintains a data center, issues various forms of climate forecasts, disseminates climate information and early warnings and provides training to meteorological departments, journalists and non-governmental organizations.

[START](#) strengthens scientific capacities in Africa and Asia for addressing critical challenges arising at the intersection of global change and sustainable development. Its work focuses on issues including climate change and extremes in the context of disaster risk reduction, land-use and land-cover change, natural resources and ecosystems, food and water security, human health, and urbanization. It is committed to advancing science capacity

Foreword

Guidelines

Introduction

Systematic observation, science and climate services

Navigating the landscape of support for NAPs

Information and knowledge

Finance

Concluding remarks

Capacity-building and technical support

Annex

Technology development and transfer



development that transcends disciplinary boundaries and promotes collaboration across science societal interfaces.

Some national and regional research centres extend their services to countries around the world. Examples include:

- The [UK Met Office Hadley Centre](#) which harnesses UK scientific expertise to help strengthen the resilience of vulnerable communities in other countries through its “Weather and Climate Science for Service Partnership” programme;
- The [US National Aeronautics and Space Administration \(NASA\) Center for Climate Simulation](#) which upholds a central location for publishing and accessing large, complex climate model data to benefit the climate science community as well as the broader public. It does so by assisting government and

business to overcome challenges of managing and understanding big datasets and climate models through intuitive interfaces;

- The [US National Drought Mitigation Centre](#) engages in international projects to help drought-prone countries and communities to plan for and monitor droughts so as to mitigate their effects.

FURTHER INFORMATION

[Caribbean Climate Online Risk and Adaptation tool – CCORAL.](#)

[CSIRO Regional Climate Consortium for Asia and the Pacific climate change data portal.](#)

[IGAD Climate Prediction and Applications Centre.](#)

[START.](#)

[UK Met Office Weather and Climate Science for Service Partnership programme.](#)

[NASA Climate Data Services.](#)

[US National Drought Mitigation Centre.](#)



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2.3 Information and knowledge

The iterative nature of the process to formulate and implement NAPs means that the collection, analysis, synthesis and dissemination of knowledge and information are instrumental for learning and enhancing adaptation efforts over time. This section highlights existing work programmes and adaptation knowledge sharing platforms both under the Convention and outside of the UNFCCC process.

2.3.1 Programmes and platforms under the UNFCCC

NAP Central

NAP Central is a universally accessible, web-based repository and hub for information pertinent to the formulation and implementation of NAPs. Developed by the LEG, the main target audience of NAP Central are NAP teams in developing countries, with a particular focus on the LDCs. It features information on the following fields, among others:

1. **Submitted NAPs:** by the developing countries, as well as sectoral strategies and other outputs related to the process to formulate and implement NAPs;
2. **NAP guidelines:** including the initial guidelines by the COP, the NAP technical guidelines developed by the LEG, and supplementary material developed by different bodies and organizations;
3. **NAP Data Catalog:** to enhance data access and application for the formulation and implementation of NAPs;
4. **NAP Dashboard Tracking Tool:** providing information on progress made by countries including through specific milestones such as producing a NAP, access to funding, M&E reports;
5. **Open NAPs:** housing information related to the Open NAP case studies undertaken in collaboration with countries;
6. **NAP Questionnaire:** to collect information from Parties on an ongoing basis on

progress, experiences, good practices, lessons learned, challenges, gaps and needs related to the formulation and implementation of NAPs;

7. **NAP events:** including NAP writing workshops, NAP Expos, outreach events;
8. **NAP Blogger:** featuring latest stories and news from the NAP community such as NAPs submitted on NAP Central, guidelines and supplementary materials, worldwide NAP events;
9. **UN4NAPs initiative:** mobilizing the UN-wide system of organizations and other intergovernmental organizations to respond to technical requests identified by countries (see section 2.5.2 below).

NAP Central is constantly being updated in order to provide the latest available information and to improve its user friendliness.

FURTHER INFORMATION

[NAP Central](#).

NAP Expo

The NAP Expo is an annual forum organized by the LEG, in collaboration with various bodies and organizations, to promote the exchange of experiences and foster partnerships between countries, organizations and other relevant actors on how to advance NAPs. The specific objectives of the NAP Expo are:

- To update stakeholders on the latest guidance on the technical and financial aspects to advance the formulation and implementation of NAPs;
- To discuss country experiences, best practices, lessons learned, gaps and needs and information on support provided and received in relation to the process to formulate and implement NAPs;
- To offer a platform for countries to interact with the GCF and others providing support for NAPs, as a means to improve access to financing for NAPs.



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The LEG has so far organized eight NAP Expos of which two were organized at the regional level.

FURTHER INFORMATION

Links to all past NAP Expos including all background material and presentations are available at <https://unfccc.int/topics/adaptation-and-resilience/workstreams/national-adaptation-plans-naps/nap-expo-0>.

Parties, observers and relevant organizations can register for NAP Expos via NAPexpo@unfccc.int and upon receipt of an information note that is issued prior to each Expo.

For any information on the NAP Expos the secretariat can be contacted at NAPexpo@unfccc.int.

The Nairobi work programme on impacts, vulnerability and adaptation to climate change

The NWP was established in 2005 and strives 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. Serving as a knowledge-to-action hub it responds to knowledge needs identified by Parties and arising from the implementation of the Cancun Adaptation Framework, and other relevant workstreams and bodies under the Convention, and tries to close them through

the dissemination of accessible knowledge products.

The NWP's four core functions are: (i) engaging stakeholders; (ii) synthesizing knowledge; (iii) disseminating knowledge; and (iv) fostering collaboration.

It works with an extensive network of [partner organizations](#) to produce knowledge products that decision-makers need to formulate and implement effective, evidence-based policies, such as national adaptation plans.

It convenes annual Focal Point Forums during sessions of the Conference of the Parties to provide an interactive space for national governments, partner organizations and thematic experts to enhance collaboration and to exchange knowledge, views and ideas.

Over time the NWP's modalities, expected outcomes and areas of work have been evolving through successive mandates from Parties.

Its mandates and modalities, including various programmes and initiatives, are summarized in Figure 4.

Foreword

Guidelines

Introduction

Systematic observation, science and climate services

Navigating the landscape of support for NAPs

Information and knowledge

Finance

Concluding remarks

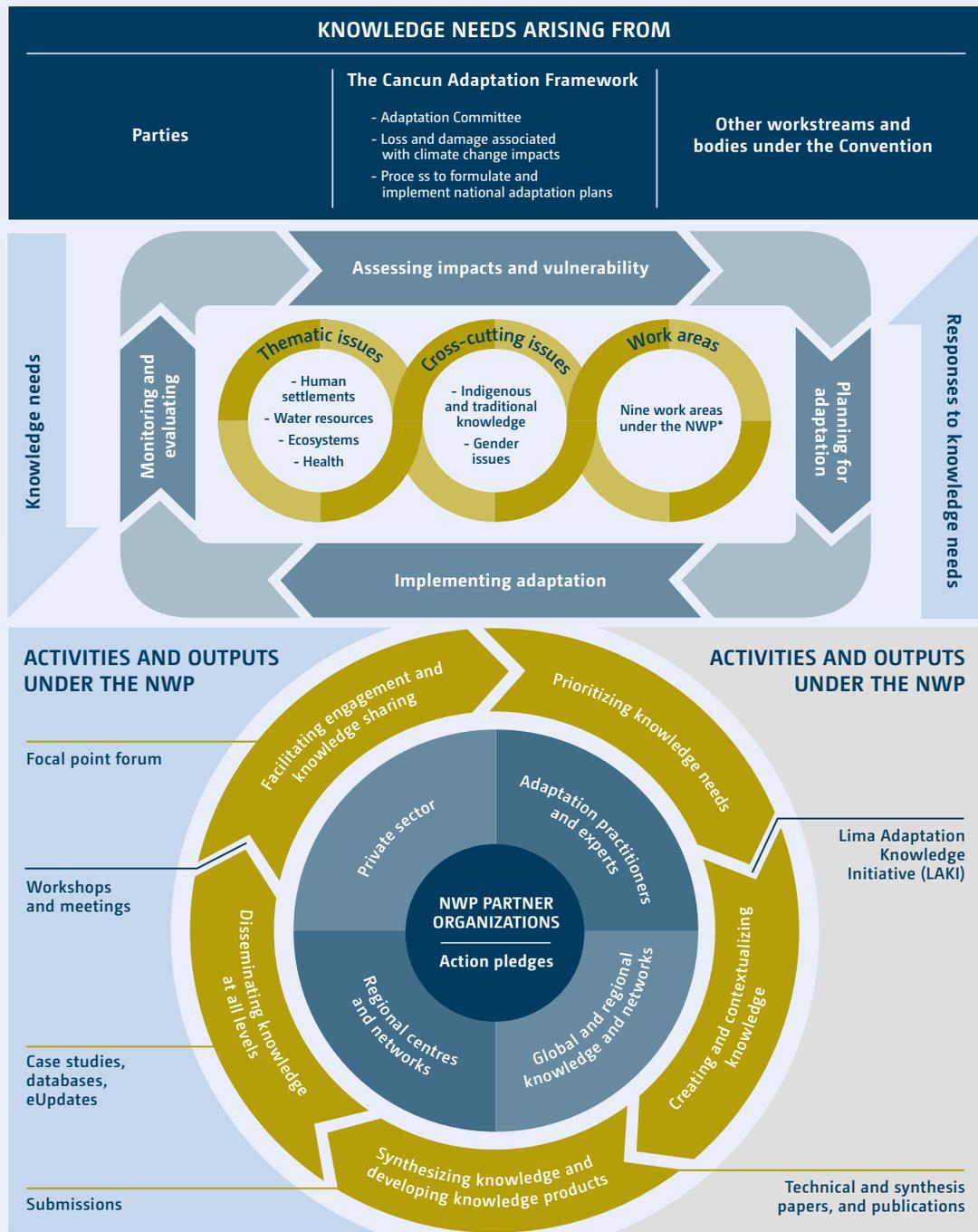
Capacity-building and technical support

Annex

Technology development and transfer



FIGURE 4. Mandates and modalities of the Nairobi Work Programme on impacts, vulnerability and adaptation to climate change



The NWP also hosts the [Adaptation Knowledge Portal](#) which is described in more detail in the next section.

[NWP Focal Point Forums.](#)

[The Lima Adaptation Knowledge Initiative.](#)

[UN Climate Change and Universities Partnership Programme.](#)

FURTHER INFORMATION

[The Nairobi Work Programme: The UNFCCC Knowledge-to-Action Hub for Climate Adaptation and Resilience.](#)

Foreword

Introduction

Navigating the landscape of support for NAPs

Concluding remarks

Annex

Guidelines

Systematic observation, science and climate services

Information and knowledge

Finance

Capacity-building and technical support

Technology development and transfer



The Adaptation Knowledge Portal

The AKP is a user-friendly gateway for disseminating and accessing a wide range of free and open-access knowledge products, from case studies and synthesis reports to vulnerability impact assessment tools and programme management frameworks about climate change adaptation and resilience. It can be searched by world region or by one of nine thematic areas.

The portal also provides an entry point to engage with the NWP's diverse, global network and allows partners to submit joint or individual [action pledges](#) – commitments that respond to key adaptation knowledge needs and gaps identified under the NWP.

FURTHER INFORMATION

[UNFCCC Adaptation Knowledge Portal](#).

The UNFCCC Finance Portal

The UNFCCC climate finance data portal is a gateway to information on activities funded in developing countries to implement the Convention. In particular, it aims to assist Parties in tracking the Financial Mechanism of the Convention and the Paris Agreement and to inform the intergovernmental process under the UNFCCC and relevant stakeholders on the mobilization of resources to support developing countries in the implementation of adaptation and mitigation projects and other activities under the Convention and the Paris Agreement.

Through different modules the portal presents data and information on (i) provided financial resources as communicated by Parties contained in Annex II to the Convention (Annex II Parties) through their fourth, fifth and sixth national communications as well as through biennial reports; (ii) resources provided by developed country Parties as part of their collective commitment to provide USD 30 billion for the period 2010 – 2012 as fast-start finance, and how developing country Parties have accessed them; (iii) financial flows channeled, mobilized and leveraged by the GEF; (iv) programme and project-level data channeled through the GCF; and (v) project data related to entities, projects and programmes financed under the Adaptation Fund.

The data is presented in tabular format or via interactive maps, graphics and figures and can be searched by applying different search filters.

FURTHER INFORMATION

[UNFCCC Climate Finance Data Portal](#).

TT:Clear

TT:Clear was established in 2001 and is the UNFCCC's website on information to facilitate the development and transfer of climate technologies. It houses information on climate technology negotiations, the [Technology Executive Committee](#) and its policy recommendations, as well as [Technology Needs Assessments](#). In addition, visitors can discover technology projects from around the world and find ways to support and connect with the people behind them. They can also participate in climate-related technology events and connect with climate solutions via the [Climate Technology Center and Network](#).

FURTHER INFORMATION

[TT:Clear](#).

The Climate Technology Centre and Network Portal

CTCN's Online Technology Portal serves as a gateway to the CTCN's technical assistance and capacity building services, with special hubs for national designated entities and Network members. It is designed to serve as a comprehensive library of climate technology information and tools, organized by geographic region and technology sector, and made available through an open-source database. The CTCN Portal is also accessible via TT:Clear.

FURTHER INFORMATION

[Climate Technology Centre and Network Portal](#).

The Capacity-building Portal

The Capacity-building Portal is an interactive tool that gathers and presents active information on projects, tools, courses, and other resources that enhance the capacity and ability of developing countries to



respond to climate change at national and regional levels. It presents the information via an interactive world map that depicts an overview of all activities and capacity-building priority areas.⁵ The portal's content can be filtered by region, country, year range, and by priority area.

In addition to presenting information on capacity-building activities per country and region the portal also lists e-learning courses, external capacity-building platforms, capacity-building events as well as news per theme, including for adaptation. Finally, it showcases capacity-building events and tools offered by the constituted bodies under the UNFCCC as well as by the operating entities of the Financial Mechanism.

FURTHER INFORMATION

[Capacity-building Portal.](#)

An overview of capacity-building activities undertaken by constituted bodies and operating entities under the Convention and the Paris Agreement is available at <https://unfccc.int/topics/capacity-building/groups-committees/paris-committee-on-capacity-building/capacity-building-constituted-bodies-and-operating-entities#eq-1>.

2.3.2 Programmes and platforms outside the UNFCCC process

The World Adaptation Science Programme

The WASP succeeded the Global Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA) in 2018 and is hosted by UNEP. It focuses primarily on the provision of policy-relevant scientific knowledge to support the UNFCCC, the IPCC, the GCF, and the GEF, while giving priority to research needs in vulnerable developing countries. It facilitates the information exchange and usage amongst stakeholders to advance the science-policy-practice interface in the context of adaptation. The WASP identifies knowledge gaps and emerging research priorities and mobilizes and coordinates the broader adaptation community through regular activities like its biennial international Adaptation Futures Conference.

Participants of these conferences benefit from learning and networking opportunities around a specific adaptation theme that is selected for each conference.

FURTHER INFORMATION

[World Adaptation Science Programme.](#)

[International Adaptation Futures Conferences.](#)

The Global Adaptation Network

The GAN was established by UNEP in 2010 and is a knowledge-sharing platform with the overarching aim of making the abundant economic, ecological and technological knowledge on adaptation accessible to the actors on the ground. As an umbrella organization spanning most continents, GAN is composed of many regional networks and partners, for example in Asia, Latin America and the Caribbean and Africa, each of which provides knowledge services in its respective region.

The GAN distributes and exchanges adaptation knowledge in a variety of ways, including through online portals, conferences, webinars, peer-to-peer learning exchanges, funding opportunities, research initiatives to close knowledge gaps, collection of case studies, and by supporting partnerships, stories, blogs and podcasts. These are organized or produced either by the global GAN or by one of its regional networks/partners.

The GAN has a unique relationship with the UNFCCC and closely cooperates, for example, with the Adaptation Committee and the NWP.

FURTHER INFORMATION

[The Global Adaptation Network.](#)

More information on the GAN's regional networks and partners is available at <https://www.unep.org/gan/networks-partners>.

⁵ [Decision 2/CP.7.](#)



2.4 Finance

Financial support for the process to formulate and implement NAPs is provided through public and private sources and through different channels under and outside the UNFCCC. The COP has requested the operating entities of the Financial Mechanism of the Convention and the Paris Agreement (the Green Climate Fund and the Global Environment Facility) to provide funding for the process to formulate and implement NAPs. In addition, several institutions and funds outside the UNFCCC are providing financial support relevant for the formulation and implementation of NAPs. With the recent provisions by COP 26 and CMA 3 which urge developed country Parties to at least double their collective provision of climate finance for adaptation to developing country Parties from 2019 levels by 2025⁶ the amount of public adaptation finance available in the future

is expected to grow. At the same time, efforts are being made to increasingly engage the private sector in adaptation and resilience-building activities.

In general, funding channels and windows differ according to the type of adaptation measures they support, the amount of funding they provide, access procedures, financing instruments and eligible implementing agencies.

It is important to note that the funds and organizations that provide and implement adaptation finance in developing countries usually also act as providers of technical and capacity-building support and, in many cases, as supporters of technology development and transfer. They therefore take on different roles in facilitating the formulation and implementation of NAPs in developing countries.



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6 [Decision 1/CMA.3](#).



2.4.1 Financial support under the UNFCCC

Funding for adaptation under the UNFCCC is available through the Green Climate Fund, the Least Developed Countries Fund, the Special Climate Change Fund and the Adaptation Fund.

The Green Climate Fund

The GCF is the largest global fund dedicated to help fight climate change and to assist countries in moving towards low-emissions, climate-resilient pathways. It was established in 2010 by the COP as an operating entity of the Financial Mechanism. Later, the COP mandated it to balance the allocation of its resources between adaptation and mitigation activities⁷ and to take into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change, including LDCs, SIDS and African States, using minimum allocation floors for these countries, as appropriate.⁸ Subsequently, the Board of the GCF decided to aim for a 50:50 balance in allocating its resources between mitigation and adaptation over time and for a floor of 50% of the adaptation allocation for particularly vulnerable countries.⁹ As of May 2022, the GCF reported that nearly 70% of its adaptation investments went to LDCs, SIDS and African States.

In 2015, the GCF was requested by the COP to expedite support for the formulation and implementation of NAPs in LDCs and other developing country Parties.¹⁰

Through its adaptation funding window the GCF currently supports adaptation-related projects, programmes, policies and other activities in developing country Parties according to its [strategic plan for 2020-2023](#) and in the following four adaptation result areas:

- Health, food and water security;
- Livelihoods of people and communities;

- Infrastructure and built environment;
- Ecosystems and ecosystem services.

Support can be provided in the form of grants, concessional loans, equity, guarantees, result-based payments and other types of financial instruments as approved by the GCF Board. As of July 2022 the GCF has committed USD 10.4 billion of which approximately 49% in grant equivalent have been committed to adaptation.

In order to provide capacity-building for countries to access its funding the GCF has established a [readiness and preparatory support programme](#) (readiness programme). Under this programme developing countries may access up to USD 3 million specifically for the formulation of their NAP or for other adaptation planning processes. Support is provided with the objective of achieving one or more of the following outcomes: (i) Adaptation planning governance and institutional coordination strengthened; (ii) Evidence basis used to design adaptation solutions for maximum impact; (iii) Private sector engagement in adaptation catalysed; and (iv) Adaptation finance increased.

Countries have the option of accessing the USD 3 million cap through one proposal with one Delivery Partner, or through a set of multiple sequential proposals involving different Delivery Partners and their respective specific expertise in different components of the adaptation planning process. The latter provides the opportunity of learning by doing considering the iterative nature of adaptation planning. Adaptation planning proposals can be submitted on a rolling basis and the Delivery Partners do not need to be GCF Accredited Entities as long as they undergo a Financial Management Capacity Assessment. As of July 2022 the GCF had approved 82 requests for NAP support, amounting to more than USD 184 million.

Beyond the readiness programme, countries, via respective accredited entities, can access the [adaptation funding window](#) by submitting

7 [Decision 3/CP.17](#).

8 [Decision 3/CP.17, annex](#).

9 [Decision B.06/06](#).

10 [Decision 1/CP.21, paragraph 46](#).



project and programme concept notes, Project Preparation Facility requests and regular funding proposals in order to implement adaptation actions identified in their NAPs and/or other adaptation planning processes. Accredited entities can be sub-national, national, regional or international. A country may access GCF resources through multiple entities simultaneously.

Projects can be micro (<USD 10 million), small (USD 10–50 million), medium (USD 50 – 250 million) or large (>USD 250 million) in size. In case the proposals do not exceed USD 10 million in funding requests from the GCF and their environmental and social risks and impacts are classified as minimal to none, they can be submitted via the [Simplified Approval Process](#). In general a country is eligible to submit up to five priority projects/programmes over a four-year period from its overall country programme.

The GCF also supports the development and transfer of technologies, including adaptation technologies, through its readiness and preparatory support programme as well as via its regular funding windows (for further information see section 2.6.1).

The GCF's Private Sector Facility aims at engaging both the local and global private sector in supporting climate change adaptation projects in developing countries. It does this by de-risking the delivery of private capital and by scaling up private sector investment flows for climate-resilient development. It promotes particularly the participation of local actors, including small- and medium-sized enterprises and local financial intermediaries.

FURTHER INFORMATION

[GCF readiness support for NAPs.](#)

[GCF. Readiness and Preparatory Support guidebook: A practical guide on how to prepare readiness proposals for the Green Climate Fund.](#) Available in English, French, Spanish and Arabic.

More information on the GCF's support for general adaptation activities is available at <https://www.greenclimate.fund/themes/adaptation>.

[GCF Project Preparation Facility.](#)

A list of GCF accredited entities is available at <https://www.greenclimate.fund/about/partners/ae>.

More information on the GCF's support for adaptation technologies is available at https://www.greenclimate.fund/sites/default/files/document/gcf-brief-support-technology_0.pdf and in section 2.6.1.

[GCF Private Sector Facility.](#)

Least Developed Countries Fund

The LDCF was established by the COP in 2001 and is managed by the GEF. Initially mandated to finance the preparation and implementation of [National Adaptation Programs of Action](#), as well as other components of the LDC work programme, it has been tasked, in 2011, to also provide resources to assist least developed country Parties in preparing for the national adaptation plan process.

Programming under the LDCF is guided by the strategic objectives set out in the GEF Programming Strategy on Adaptation to Climate Change for the LDCF and SCCF which may differ in each GEF replenishment period and in accordance with guidance received by the UNFCCC COP. Priority funding areas include:

- agriculture and food security;
- natural resource management;
- nature-based adaptation solutions;
- water resources;
- disaster risk management and prevention;
- coastal zone management;
- climate information services;
- infrastructure; and
- climate change induced health risks.

As of March 2022 a total of USD 60.3 million of LDCF resources have been provided for the formulation and implementation of NAPs in LDCs.¹¹ These funds have been distributed to individual projects in addition to the technical assistance for tailored one-on-one support that had been provided through the [LDCF/SCCF-funded NAP Global Support Programmes](#) until the end of 2021.

¹¹ [GEF/LDCF/SCCF/32/06.](#)



Under the Programming Strategy for GEF-8 (2022-2026) LDCF support for NAPs focuses on supporting the implementation of NAP and other adaptation planning priorities, so as to complement the readiness support provided by the GCF for the formulation of NAPs and institutional capacity-building. Under the strategy LDCs can apply for up to USD 60 million cumulatively each by using existing GEF modalities, including medium-sized (USD 2 million ceiling) and full-sized projects as well as programmatic approaches. An access cap of USD 20 million per country towards the USD 60 million ceiling exists. NAPA and NAP activities may also be combined in one project. All LDCF funds are provided in the form of grants and must be implemented with a [GEF Agency](#).

The GEF-8 Programming Strategy provides for the continuation of support for the [Challenge Program for Adaptation Innovation](#) the aim of which is to catalyse innovation to harness the potential of private sector actors. The programme seeks to test and validate potentially scalable, bankable or otherwise fundable adaptation investment approaches, business models, partnerships and technologies.

FURTHER INFORMATION

[Least Developed Countries Fund](#).

[GEF Programming Strategy on Adaptation to Climate Change for the LDCF and the SCCF for the GEF-8 Period of 1 July 2022 to 30 June 2026 and Operational Improvements](#).

GEF. Accessing resources under the Least Developed Countries Fund. 2011. Available at <https://www.thegef.org/newsroom/publications?topic=2207&agency=&title=LDCF>.

A simple overview of how to access resources under the LDCF is provided at https://ap-plat.nies.go.jp/useful_information/financial_info/gef/index.html.

[Challenge Program for Adaptation Innovation](#).

Special Climate Change Fund

The SCCF was established by the COP in 2001 and is managed by the GEF. It is mandated to finance activities, programs, and measures that help vulnerable developing countries (particularly the most vulnerable in Africa, Asia and the Small Island Developing States) to address the

negative impacts of climate change. It particularly supports countries to address a range of barriers to climate-resilient development including (i) limited access to climate-resilient technologies and infrastructure; (ii) limited institutional capacity to foresee and manage climate risks; (iii) low engagement by the private sector, including small and medium-sized enterprises and entrepreneurs, for developing and providing adaptation solutions; and (iv) lack of access to finance from public sources and to markets for adaptation solutions.

In accordance with COP guidance support is directed primarily towards the following adaptation areas:

- Water resources management;
- Land management;
- Agriculture;
- Health;
- Infrastructure development;
- Fragile ecosystems (including mountain ecosystems);
- Integrated coastal zone management; and,
- Climatic disaster risk management.

The SCCF has been renowned for its accessibility for non-Annex I countries as well as for its support for innovative adaptation projects that can be scaled for impact.

Since 2011, the SCCF has been tasked to provide resources to assist developing country Parties that are not least developed country Parties with their country-driven processes to advance NAPs and has provided USD 5.1 million for such activities until March 2022.¹² These funds have been distributed to individual projects or in the form of technical assistance for tailored one-on-one support provided through the NAP Global Support Programme (GSP). Programming under the SCCF is guided by the strategic objectives set out in the GEF Programming Strategy on Adaptation to Climate Change for the LDCF and SCCF which

¹² [GEF/LDCF/SCCF:32/06](#).



may differ in each GEF replenishment period and in accordance with guidance received by the UNFCCC COP. According to the Programming Strategy for GEF-8 (2022-2026) SCCF resources will be directed to the needs of SIDS, particularly those that are not classified as LDCs. As in the case of the LDCF, support for NAPs within the strategy focuses on the implementation of priorities articulated in the NAPs and other adaptation plans so as to complement the readiness support provided by the GCF for the formulation of NAPs and institutional capacity-building.

Countries can currently apply for SCCF funding by using existing GEF modalities, including medium-sized (USD 2 million ceiling) and full-sized projects as well as programmatic approaches. A streamlined project cycle applies to medium-sized projects omitting the need for submission of a Project Identification Form (PIF), unless a Project Preparation Grant (PPG) is sought in which case a PIF is required. SCCF resources can also be provided for Enabling Activities (=a project for the preparation of a plan, strategy or report to fulfil commitments under a Convention – up to USD 1 million), for project preparation or through a Small Grants Programme. An access cap for the SCCF will potentially be introduced for the GEF-8 period. SCCF funds are provided in the form of grants and all projects must be implemented with a [GEF Agency](#), except for cases in which SCCF resources are used to finance Enabling Activities in which case direct access is possible.

The GEF-8 Programming Strategy provides for the continuation of support for the [Challenge Program for Adaptation Innovation](#) the aim of which is to catalyse innovation to harness the potential of private sector actors. The programme seeks to test and validate potentially scalable, bankable or otherwise fundable adaptation investment approaches, business models, partnerships and technologies.

FURTHER INFORMATION

[Special Climate Change Fund.](#)

[GEF Programming Strategy on Adaptation to Climate Change for the LDCF and the SCCF for the GEF-8 Period of 1 July 2022 to 30 June 2026 and Operational Improvements.](#)

GEF. 2011. Accessing resources under the Special Climate Change Fund. Available at https://www.thegef.org/sites/default/files/publications/23470_SCCF_1.pdf.

A simple overview of how to access resources under the SCCF is provided at https://ap-plat.nies.go.jp/useful_information/financial_info/gef/index.html.

[Challenge Program for Adaptation Innovation.](#)

The Adaptation Fund

The Adaptation Fund was established by the COP in 2001 to finance concrete adaptation projects and programmes in developing country Parties to the Kyoto Protocol and particularly vulnerable to the adverse effects of climate change. According to the Fund's strategic policies and guidelines, particularly vulnerable Parties include low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems.

Since 2010 the Adaptation Fund has committed nearly USD 878 million for projects and programmes. During the contributor dialogue at COP 26 in November 2021, the AF received a record USD 356 million in new support from contributing national and regional governments.

The AF does not define priority result areas as long as the proposed projects and programmes are country driven and based on the needs, views and priorities of eligible Parties, particularly the needs of the most vulnerable communities. The proposed projects and programmes should also take into account, inter alia, national sustainable development strategies, poverty reduction strategies, national communications and national adaptation programmes of action and other relevant instruments, where they exist. Thus, although not directly mandated to provide support for the implementation of NAPs, the strategic priorities of the AF align well with the objectives of the process to formulate and implement NAPs. Further strategic priorities that guide the assessment of project and programme proposals are contained in the Fund's Strategic Priorities, Policies and Guidelines.

Support is provided for projects and programmes at the national, regional and community level on a full adaptation cost basis and in the form of grants.



Proposed projects and programmes can be small-sized (up USD 1 million) or regular-sized (over USD 1 million and up to USD 10 million maximum for individual country projects). A cap in resource allocation per eligible host country, project and programme will be agreed by the Board based on a periodic assessment of the overall status of resources in the Adaptation Fund Trust Fund and with a view to ensuring equitable distribution (currently at USD 20 million per country). Project/programme formulation grants and project/programme formulation assistance grants (supporting the undertaking of specialist technical assessments during project preparation and design) are also available to implementing entities. In addition, such entities can apply for different readiness grants that can assist them with the accreditation process through e.g. South-South Cooperation or with specific capacity-building.

Eligible Parties are recommended to apply for AF funding through direct access, thus submitting funding proposals directly through a nominated National Implementing Entity. The AF has pioneered this access avenue to increase country ownership and today counts with 34 NIEs. Countries can nominate and accredit up to two national implementing entities. If a Party does not wish to access the fund directly it can choose to submit proposals through a regional implementing entity or a multilateral implementing entity. It is also possible for a group of Parties to submit a joint proposal in which case they would also choose a regional implementing entity.

FURTHER INFORMATION

[Adaptation Fund.](#)

Adaptation Fund Board. Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund. 2017 (amended 2021). Available at https://www.adaptation-fund.org/wp-content/uploads/2017/08/OPG-amended-in-October-2021_adopted-clean.pdf.

Adaptation Fund Board. Strategic Priorities, Policies, and Guidelines of the Adaptation Fund adopted by the CMP (Annex I to the Operational Policies and Guidelines). 2019. Available at https://www.adaptation-fund.org/wp-content/uploads/2019/06/AFB-B.33-b-3-Add.2_SPPG_OPG-ANNEX-1_highlighted.pdf.

[Adaptation Fund Climate Innovation Accelerator \(AFCIA\).](#)

2.4.2 Financial support outside of the UNFCCC process

Several channels exist outside of the UNFCCC process through which domestic, bilateral or multilateral finance for adaptation, including for the process to formulate and implement NAPs, is provided. These, as well as the role of the private sector in financing and implementing adaptation, are described in the following sections.

2.4.2.1 Domestic finance

Domestic public finance plays an indispensable role in supporting national adaptation in general and the formulation and implementation of NAPs in particular, especially in the medium and long-term.

There are different forms of generating and spending domestic public finance in order to ensure that the formulation and implementation of NAPs is indeed country-owned and that adaptation priorities are integrated into national planning at all levels. These include:

- Allocating resources to cover costs of the formulation and implementation of NAPs within domestic public budgets at national and sub-national levels using the country's planning and budgeting cycle;
- Using fiscal instruments to generate new revenue for the formulation and implementation of NAPs, e.g. through taxes, bonds and debt conversion or to redistribute existing or new government revenue to achieve desired adaptation outcomes (e.g. through subsidies or subsidy reforms);
- Establishing domestic climate change funds as a financial vehicle through which domestic and/or international finance can be channeled for adaptation purposes (examples are the [Indonesia Climate Change Trust Fund](#) or the [Philippines's People's Survival Fund](#)).¹³

13 NAP Global Network. 2017. Financing National Adaptation Plans (NAP) Processes: Contributing to the achievement of nationally determined contribution (NDC) adaptation goals. Guidance Note. Available at <https://napglobalnetwork.org/resource/financing-national-adaptation-plan-Processes-contributing-achievement-nationally-determined-contribution-ndc-adaptation-goals/>.



Support for setting-up such effective domestic financing structures can be sought from many bilateral and multilateral providers. One example is the technical support that the World Bank offers as part of its [Climate Change Action Plan 2021-2025](#) which aims at increasing countries' domestic resources for climate action, building fiscal buffers to prepare for climate-related shocks and at realigning incentives towards climate-resilient investments through fiscal policy. Other multilateral development banks and bilateral providers of support offer similar types of technical support as part of their portfolios.

FURTHER INFORMATION

NAP Global Network. 2017. Financing National Adaptation Plans (NAP) Processes: Contributing to the achievement of nationally determined contribution (NDC) adaptation goals. Guidance Note. Available at <https://napglobalnetwork.org/resource/financing-national-adaptation-plan-nap-processes-contributing-achievement-nationally-determined-contribution-ndc-adaptation-goals/>.

2.4.2.2 Bilateral finance

Bilateral adaptation finance, sourced from a single or a small group of like-minded provider governments, makes up a large share of adaptation finance. In 2019/2020 the annual average of finance flows from bilateral development finance institutions accounted for roughly USD 5.4 billion.¹⁴

Bilateral adaptation finance is usually provided by ministries or agencies responsible for international development cooperation or environment, and implemented through institutions such as technical assistance agencies or bilateral development banks. Most bilateral support is provided in the form of grants, concessional loans or equity.

There are two dominant ways of channeling bilateral adaptation finance: targeted climate funds (e.g. Germany's [International Climate Initiative](#), the Nordic countries' [Nordic Development Fund](#), the UK's [International Climate Fund](#), the EU's [Global Climate Change Alliance](#),

Foreword

Guidelines

Introduction

Systematic observation, science and climate services

Navigating the landscape of support for NAPs

Information and knowledge

Finance

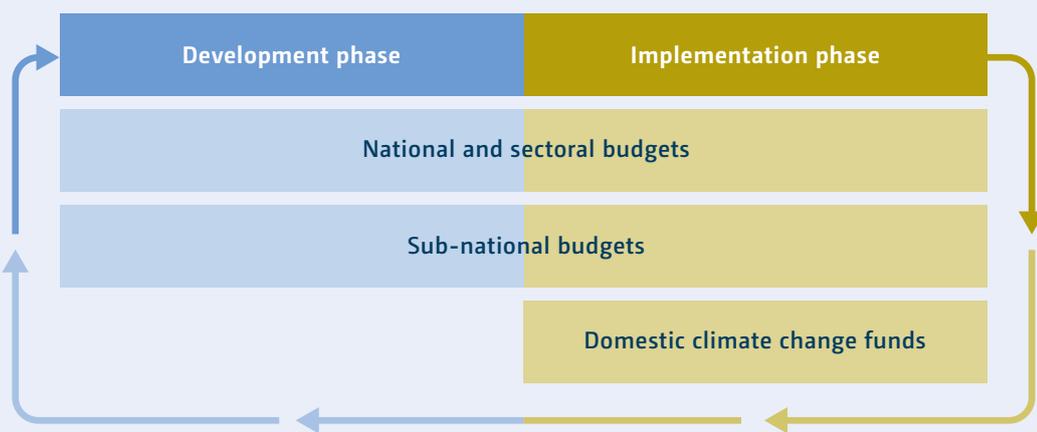
Concluding remarks

Capacity-building and technical support

Annex

Technology development and transfer

FIGURE 5. Potential role of domestic public finance in supporting the formulation and implementation of NAPs. Source: NAP Global Network. 2017. Financing National Adaptation Plans (NAP) Processes: Contributing to the achievement of nationally determined contribution (NDC) adaptation goals. Guidance Note.



Source: NAP Global Network. 2017. Financing National Adaptation Plans (NAP) Processes: Contributing to the achievement of nationally determined contribution (NDC) adaptation goals. Guidance Note.

14 Climate Policy Initiative. 2021. Global Landscape of Climate Finance 2021. Preview. Available at <https://www.climatepolicyinitiative.org/wp-content/uploads/2021/10/Global-Landscape-of-Climate-Finance-2021.pdf>.



Australia's [Climate Resilient by Nature](#) initiative, or the US' [SERVIR](#) initiative) or bilateral commitments based on government-to-government negotiations.

Targeted climate funds typically operate through calls for proposals with specific focus areas.

Bilateral commitments build on country priorities and strategies and may either support targeted adaptation interventions or ensure that adaptation considerations are integrated into the overall or parts of the assistance portfolio. In addition, through government-to-government negotiations countries may also agree upon instruments such as targeted budget support, basket financing or sector-wide approaches that go beyond financing of individual projects. This may allow for the integration of adaptation considerations into comprehensive and systematic sector development programming and budgeting.¹⁵

LDCs tend to be particularly predestinated for receiving bilateral adaptation finance as they usually count with long-standing relationships with individual provider countries due to the heightened role that official development assistance plays in financing their development activities in general.

Overall, bilateral financing is the most flexible form of adaptation finance and often quicker than its multilateral equivalent since recipient countries can use their NAPs to define their assistance priorities during the government-to-government negotiations. In addition, bilateral finance has the advantage of being able to support the full range of the costs involved in the formulation and implementation of NAPs: ranging from operational costs and costs incurred by institutional strengthening, capacity-building and stakeholder engagement to the costs of infrastructure, communication systems and monitoring and evaluation.

The pool of countries that provide bilateral finance has widened in recent years and increasingly includes countries of the global South that are

not part of the more traditional group of donors involved in the OECD-Development Assistance Committee.¹⁶ As such, China, Mexico and South Korea are also providing adaptation finance as part of South-South development cooperation. In 2015, for example, China set up a China South-South Climate Cooperation Fund to provide USD 3.1 billion to help developing countries tackle climate change.¹⁷

FURTHER INFORMATION

An overview of bilateral development agencies that provide climate change finance and technical support and their websites is available at <https://unfccc.int/topics/climate-finance/resources/multilateral-and-bilateral-funding-sources>.

2.4.2.3 Multilateral finance

Multilateral adaptation finance, beyond that provided under the Convention, is either channelled through multilateral development banks or through international programmes. Multilateral finance is particularly suitable to support the implementation of NAP activities.

The World Bank Group

The World Bank Group finances adaptation primarily through two of its members which collectively form what is known as the World Bank: the International Bank for Reconstruction and Development, which provides financial development and policy financing, and the International Development Association which provides zero-to-low-interest loans and grants. To a lesser extent, adaptation finance is provided through the International Finance Corporation which supports private sector development and engagement in developing countries.

As part of the Group's New Climate Change Action Plan (2021-25) 35% of its financing (approximately USD 98 billion in fiscal year 2021) will have climate co-benefits and at least 50% percent of that climate finance will be devoted to adaptation. In addition, 100%

15 NAP Global Network. 2017. Financing National Adaptation Plan (NAP) Processes: Contributing to the achievement of nationally determined contribution (NDC) adaptation goals. Guidance note. Available at <https://napglobalnetwork.org/resource/financing-national-adaptation-plan-nap-processes-contributing-achievement-nationally-determined-contribution-ndc-adaptation-goals/>.

16 The OECD-DAC is a unique international forum of many of the largest providers of aid, including 30 members.

17 [https://www.i-sis.org.uk/China_Commits_\\$5.1_Billion_to_South-South_Cooperation_on_Climate_Change.php](https://www.i-sis.org.uk/China_Commits_$5.1_Billion_to_South-South_Cooperation_on_Climate_Change.php).



of IBRD's and IDA's financing (USD 30.5 billion and USD 36 billion, respectively, in fiscal year 2021) will be aligned with the Paris Agreement by 1 July 2023 and support will be provided for countries' NDCs and long-term strategies, such as NAPs. New metrics will be developed to better measure results and impacts of climate-related interventions. This New Climate Change Action Plan needs to be viewed in conjunction with the green, resilient and inclusive development that is being promoted by the Group in response to the COVID-19 crisis.

IBRD's climate finance is targeted at middle-income and creditworthy low-income countries while IDA's finance targets particularly the poorest and most vulnerable. Both Group members provide their finance in the form of grants, (highly) concessional loans and other types of funding instruments. Countries can access funds primarily through their regular engagement with the Bank, as defined through their respective [Country Partnership Framework](#). They can also choose the World Bank as their implementing agency when accessing funding from other channels and benefit from the Bank's experience and co-financing opportunities. In addition, the Bank regularly invests in research on new and improved approaches to climate-resilient development in which countries are welcome to participate as pilots. Such initiatives around specific themes include, for example, those on climate-smart agriculture, resilient cities and transport or on the engagement of the private sector.

The World Bank's [Blueprint for Action for Enabling Private Investment in Climate Adaptation and Resilience](#) is a specific initiative that aims at assisting governments in setting up enabling environments for private sector engagement and designing national adaptation investment plans.

FURTHER INFORMATION

[The World Bank Group.](#)

[World Bank Country Engagement.](#)

World Bank Group. 2021. Climate Change Action Plan (2021-2025). Supporting Green, Resilient, and Inclusive Development. Available at <https://openknowledge.worldbank.org/bitstream/handle/10986/35799/CCAP-2021-25.pdf?sequence=2&isAllowed=y>.

World Bank Group/GFDRR. 2021. Enabling Private Investment in Climate Adaptation & Resilience. Current Status, Barriers to Investment and Blueprint for Action. Available at <https://openknowledge.worldbank.org/bitstream/handle/10986/35203/Enabling-Private-Investment-in-Climate-Adaptation-and-Resilience-Current-Status-Barriers-to-Investment-and-Blueprint-for-Action.pdf?sequence=5&isAllowed=y>.

Regional Multilateral Development Banks

Multilateral adaptation finance that is targeted at countries within a particular region is predominantly channelled by the regional Multilateral Development Banks. Among them are the Inter-American Development Bank Group (Latin America, Caribbean), the African Development Bank (Africa), the Asian Development Bank (Asia, Pacific), the Asian Infrastructure Investment Bank (Asia, Pacific), the European Bank for Reconstruction and Development (Central and Eastern Europe), the European Investment Bank (EU (90%) and beyond (10%)), and the Islamic Development Bank (Islamic countries in Asia, Africa and Latin America). Other such banks exist (e.g. the New Development Bank) but they have not yet set climate finance targets nor specifically reported on adaptation finance.

In total, these Banks have channelled almost USD 7 billion of adaptation finance to developing countries in 2020. Of these funds, about 93% stemmed from the regional MDB's own account while the rest represented external resources managed by the regional MDBs in their capacity as implementing entities i.e. of the GCF, the Climate Investment Funds, the GEF, the Adaptation Fund or bilateral sources. The MDBs' own resources are a composition of the banks' capitalization by donor members as well as additional resources that the banks raise from the capital markets. In recent years almost all regional MDBs have set themselves total or percentage targets of climate finance and increased these targets for the post-2020 period, with some including a specific target for adaptation finance (see table 1).

Adaptation finance by these banks is reported to cover the incremental costs of project components, subcomponents, or elements, or proportions of projects, which are considered to be inputs to an adaptation process and

are intended to reduce vulnerability and build resilience to climate change.¹⁸ In 2020, the majority of all MDBs' (including the World Bank's) adaptation finance has been committed in the form of investment loans (64%), followed by policy-based financing (17%), grants (13%) and other financial instruments. It has targeted primarily the energy, transport as well as other built environment and infrastructure sectors (26%), followed by cross-cutting operations (23%) and water and wastewater systems (17%).

Countries can benefit from the regional MDBs' adaptation finance as well as from their vast technical expertise and experience in the respective region via the following two

means: either through their individual country programming with those banks that they are members of or by choosing a suitable bank as their implementing entity when applying to adaptation finance from one of the global channels (see section 2.2.2.1). Some of the banks have also established particular climate change trust funds, such as the [Africa Climate Change Fund](#) (AfDB), the [Urban Resilience Trust Fund](#) (ADB), or the [Small Farmers Climate Change Adaptation Fund](#) (IDB Lab with GCF) through which they channel climate/adaptation finance as well as technical support and knowledge transfer on behalf of a specific set of governmental or institutional donors. All these different avenues can be used by countries to receive support for the implementation of their NAPs.

TABLE 1. Regional MDBs' climate finance targets (Source: World Resources Institute - <https://www.wri.org/insights/mdb-climate-finance-joint-report-2020>)

MDB	PRE-2020 TARGET	POST-2020 TARGET
AfDB	40% of approved finance per year by 2020	At least \$25 billion for 2020-2025
ADB	\$6 billion by 2020; \$4 billion for mitigation and \$2 billion for adaptation	\$80 billion for 2019-2030, and 75% of projects (by number of projects rather than amount of financing) by 2030
AIIB	None	50% of annual loan volume by 2025 (aiming to reach \$10 billion in total annual loan volume by 2025)
EBRD	40% of annual commitments support environment/climate financing by 2020, providing \$20 billion for 2016-2020	More than 50% of commitments support green finance by 2025
EIB	Global: \$20 billion per year for 2016-2020, equal to at least 25% of overall lending Developing countries: 35% of total lending in those countries by 2020	Global: 50% of operations support climate action and environmental sustainability by 2025; €1 trillion (around \$1.18 trillion) of investments in climate action and sustainability from 2021-2030 No developing country specific target yet
IsDB	None	35% of overall annual lending by 2025
IDBG	25-30% of commitments by 2020	At least 30% of finance from IDB, IDB Invest and IDB Lab (the three components of the IDB Group) for 2021-2024

FURTHER INFORMATION

[2020 Joint Report on Multilateral Development Banks' Climate Finance.](#)

[African Development Bank.](#)

[Asian Development Bank.](#)

[Asian Infrastructure Investment Bank.](#)

[Inter-American Development Bank Group.](#)

[European Bank for Reconstruction and Development.](#)

[European Investment Bank.](#)

[Islamic Development Bank.](#)

[International Development Finance Club.](#)

18 [2020 Joint Report on Multilateral Development Banks' Climate Finance.](#)



The Pilot Programme for Climate Resilience

The PPCR was established under the Strategic Climate Fund – one of the two funds of the Climate Investment Funds which were created at the request of the G8 and G20 in 2008 to pilot and scale climate solutions in developing countries. The CIFs are financed by 14 donor countries, coordinated by the World Bank and implemented with the assistance of the MDBs and other partners.

The PPCR finances technical assistance and investments to support countries' efforts to integrate climate risks and resilience strategically into core national development planning and implementation. It thereby focuses on activities that have the potential to scale up action or to spark transformational change as opposed to singular projects that have a limited impact both in terms of temporal and geographical scale. It supports two phases: First, a preparatory phase to develop a country's Strategic Programme for Climate Resilience and readiness to absorb large-scale finance, providing approximately USD 1.5 million per country in grants. This phase is intended to build on an existing national programme, such as a NAPA, a NAP or another climate change strategy. And second, the implementation phase for which funds are available in the form of grants or concessional loans and should also be sought from other funding sources, such as the GCF. Both phases must be implemented with the support of one of the participating MDBs and in accordance with the policies and procedures of that MDB.

Until 31 December 2021 the PPCR had received a total of USD 1.2 billion in cumulative contributions. Over time it has expanded the number of participating countries. During the first phase (2008 – 2014) it supported 18 pilot countries of which nine were supported individually and an additional nine received support as part of two regional pilots (Caribbean and Pacific). For this phase, countries were not able to apply but were selected and invited by the PPCR Sub-Committee of

the CIF Administrative Unit based on the [recommendations of an expert group](#). In providing such recommendations the expert group took into account a combination of selection criteria¹⁹ as well as expert judgement and consultations with a range of stakeholders. In general, priority is given to highly vulnerable Least Developed Countries eligible for MDB concessional funds, including the Small Island Developing States.

Since May 2015, 10 additional countries have been selected to receive funding based on an expression of interest and a subsequent review and recommendations by an expert group.

In February 2020, the Business Development for Resilience Program was established as an additional window under the PPCR under which funds can be used to (a) develop innovative private sector resilience initiatives, (b) support Ministries of Finance and/or Planning to mainstream climate risk management into economic planning and development, and (c) provide project preparation grants and/or technical assistance to PPCR pilot countries. Under this window, funds are available to finance a pipeline of an additional 20 projects either under existing SPCRs or in other non-PPCR participating CIF countries (for activities a) and b)). As such, nine additional CIF countries have been receiving support under this window. The BDRP resources may also be used to support countries' response to the COVID-19 crisis.

Funds are also available through the CIF's Private Sector Set Asides that allocate concessional financing on a competitive basis to projects that engage the private sector across all CIF programmes.

As the PPCR is designed to integrate climate resilience into development plans, PPCR funded actions should, as an overarching principle, not be free-standing and should be fused with MDB resources and/or other parallel co-financing measures. Until December 2021 the co-financing ratio had been 1:2.3, whereby the MDBs remained the biggest source of co-

19 Ranging from first-order criteria such as countries' vulnerability and eligibility in terms of ODA-eligibility and having an active relationship with one of the MDBs to second (e.g. country preparedness and country distribution across regions and hazards) and third order criteria (e.g. coherence, replicability and scalability of expected PPCR activities)



financing, followed by recipient governments, bilateral/other donors, and the private sector.

In 2021, the G7 confirmed its commitment to provide up to \$2 billion in additional resources for CIFs and the CIF has agreed to pilot five new investment areas of which two relate to adaptation: climate-smart cities and nature-based solutions.

FURTHER INFORMATION

[The Pilot Programme for Climate Resilience.](#)

A CIF PowerPoint Presentation on PPCR Fundamentals (2015) is available at https://www.climateinvestmentfunds.org/sites/cif_enc/files/PPCR_Fundamentals_v3_KKR_Final.pdf.

The Adaptation for Smallholder Agriculture Programme

The ASAP is the flagship programme of the International Fund for Agriculture and Development for channelling climate and environmental finance to smallholder farmers. It has been launched in 2012 and has entered into its third phase in 2021. In the future the programme will ensure that approaches for addressing climate-related risks are integrated into all of IFAD's portfolio of loans and grants.

The first phase of ASAP (2012-2017) has received USD 300 million in grant support. The overall target for the second phase (2018 – 2020) was USD 100 million. In 2021 the third phase (ASAP+) was launched with the aim of mobilizing a total of USD 500 million.

ASAP+ focuses on addressing the climate change drivers of growing food insecurity by:

- Increasing resilience of vulnerable communities to the uncertainty caused by climate change on food security and nutrition;
- Reducing greenhouse gases through win-win interventions that also yield significant food security benefits, particularly for vulnerable groups.

Investments support the following activities with a focus on multiple-benefit, community-driven approaches:

- Climate services – enhancing the use of climate information for decision-making and planning investments to increase resilience;
- Natural resource management and governance – strengthening the participation and ownership of smallholder farmers in decision-making processes and improving technologies for the governance and management of climate-sensitive natural resources;
- Women's empowerment – increasing the participation of women in, and their benefits from, climate change adaptation activities;
- Nature-based solutions with high potential to decrease the vulnerability and enhance the resilience of smallholder farmers to climate change, while promoting ecosystem restoration;
- Carbon-sequestration, including through streamlining renewables.

In order to be eligible for ASAP funding, countries do not necessarily need to be ODA eligible countries, but need to be IFAD developing member states. ASAP+ will focus on countries where IFAD has an active portfolio and resources with the exception of countries where vulnerability to climate change and food insecurity is high and support from IFAD would greatly contribute to preventing further crises, e.g. in SIDS.

ASAP funds are provided in the form of grants which are joined with IFAD baseline investments. Their programming follows the IFAD project design cycle and is fully aligned with regular IFAD procedures and safeguards. As the funds are integrated into regular IFAD investments, e.g. as designed through the regular "Results-Based Country Strategic Opportunities Programmes", there are no specific application procedures to access ASAP funds. Whether or not a regular investment will benefit from additional ASAP funds depends on a range of qualitative (e.g. additionality, level of support from beneficiary government) and quantitative (e.g. number of poor smallholders whose climate resilience is expected to increase) ex-ante criteria.



While in the past ASAP interventions have been implemented mainly through national governments, ASAP+ will also be able to be implemented by non-governmental organizations.

FURTHER INFORMATION

[The Enhanced Adaptation for Smallholder Agriculture Programme.](#)

[Climate Funds Update on the ASAP.](#)

LoCAL provides performance-based climate resilience grants, which serve as a financial top-up to cover the additional costs of making local investments climate resilient, and combines these with technical and capacity-building support.

Delivering performance-based climate resilience grants typically involves a series of steps including climate, vulnerability and needs assessments, the development and implementation of local adaptation plans and measures, and finally performance appraisals and audits to inform subsequent grant allocations.

The Local Climate Adaptive Living Facility

The LoCAL was established by the UN Capital Development Fund in 2011 and is a mechanism dedicated to supporting local governments in LDCs and other developing countries in addressing climate change adaptation. It supports activities that increase awareness of and response to climate change at the local level; integrate climate change adaptation into local government's planning and budgeting systems; and increase the amount of finance available to local governments for climate change adaptation. It thus assists in implementing national climate change strategies, such as NAPs, and also supports countries in obtaining direct access to international finance such as from the GCF and Adaptation Fund.

LoCAL started off in two countries and has since expanded to become a global mechanism. It is now active in 29 countries (25 LDCs) across Africa, Asia, the Pacific and Caribbean and has mobilized over USD 125 million to date.

Governments interested in implementing LoCAL express their interest to the UN Capital Development Fund. Once endorsed, LoCAL will be implemented within three phases: starting off with piloting LoCAL in 2 to 4 local governments over 1-2 cycles of investments, then expanding to at least 5–10 local governments and finally conducting a national roll-out, gradually becoming the national system for channelling domestic and international adaptation finance to the local level.

While LoCAL is flexible in that it is tailored to national circumstances and local contexts, it is standardized in its design, quality assurance, monitoring and reporting. Its biggest asset is that it uses existing national systems to channel finance to the local level instead of using a project or programme approach. To this end, its implementing partners are national and local governments as well as other in-country development partners that assist in building the capacity of local government authorities required for mainstreaming adaptation in the long-term.

FURTHER INFORMATION

[The Local Climate Adaptive Living Facility.](#)

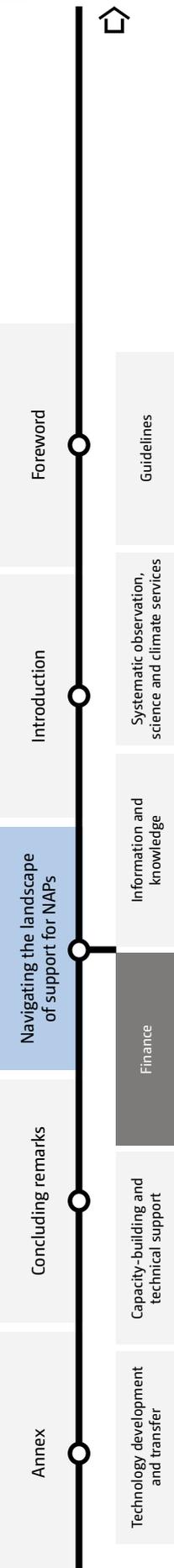
2.4.2.4 Private finance

The private sector is no homogenous group of actors and is comprised of entities ranging from smallholder farmers, small and medium-sized enterprises, multinational corporations, insurers and reinsurers, and banks and other private financiers, either acting domestically or internationally.²⁰

All of these actors can play a different role in supporting the implementation of adaptation.

Within the private sector, adaptation investments can come from: 1) private enterprises, which are non-state, commercial companies that provide the products and services to build climate resilience in a country

²⁰ United Nations Framework Convention on Climate Change. 2019. Opportunities and options for adaptation finance, including in relation to the private sector. Available at https://unfccc.int/sites/default/files/resource/tp2019_03E.pdf.



and that invest in enhancing the resilience of their operations and supply chains; and 2) from private financiers that provide direct financing to private or public sector actors for the implementation of adaptation actions.²¹

Private enterprises protect jobs, products and services which are every country's key engine of economic growth. Private financiers provide debt, equity, de-risking instruments or grants to facilitate the activities of the private enterprises or those of public actors. To date, most direct private adaptation finance has been provided in the form of insurance or – to a much lesser extent – in the form of grants extended through corporate social responsibility or philanthropic activities, such as those of the [Bezos Earth Fund](#). But many new instruments are beginning to be applied, for example, green bonds, blue bonds, guarantees for development or risk financing facilities.²²

The engagement of the private sector in implementing or supporting adaptation activities can be facilitated by governments through the creation of enabling environments or the set-up of public-private partnerships. Some of the public providers of adaptation support offer specific programmes or facilities targeted at mobilizing the private sector and at supporting governments in setting up the required enabling environments (see sections 2.4.1 and 2.4.2.3 above).

FURTHER INFORMATION

Crawford, A. & Church, C. 2019. Engaging the private sector in National Adaptation Planning Processes. International Institute for Sustainable Development. Available at <https://napglobalnetwork.org/wp-content/uploads/2019/04/napgn-en-2019-engaging-the-private-sector-in-national-adaptation-planning-processes.pdf>.

Crawford, A., Church, C., & Ledwell, C. 2020. Toolkit for Engaging the Private Sector in National Adaptation Plans (NAPs): Supplement to the UNFCCC Technical Guidelines for the NAP process. NAP Global Network & United Nations Framework Convention on Climate Change Adaptation Committee. International Institute for Sustainable Development. Available at <https://unfccc.int/documents/228643>.

Parry, J.E. et al. 2017. Financing National Adaptation Plans (NAP) Processes: Contributing to the achievement of nationally determined contribution (NDC) adaptation goals. Guidance Note. IISD. Available at <https://napglobalnetwork.org/resource/financing-national-adaptation-plan-nap-processes-contributing-achievement-nationally-determined-contribution-ndc-adaptation-goals/>.

United Nations Framework Convention on Climate Change. 2019. Opportunities and options for adaptation finance, including in relation to the private sector. Available at https://unfccc.int/sites/default/files/resource/tp2019_03E.pdf.

World Bank Group and GFDRR. 2021. Enabling Private Investment in Climate Adaptation and Resilience. Current Status, Barriers to Investment and Blueprint for Action. Available at <https://openknowledge.worldbank.org/bitstream/handle/10986/35203/Enabling-Private-Investment-in-Climate-Adaptation-and-Resilience-Current-Status-Barriers-to-Investment-and-Blueprint-for-Action.pdf?sequence=5&isAllowed=y>.

21 Crawford, A. & Church, C. 2019. Engaging the private sector in National Adaptation Planning Processes. International Institute for Sustainable Development. Available at <http://napglobalnetwork.org/resource/engaging-the-private-sector-in-national-adaptation-planning-processes/>.

22 Parry, J.E. et al. 2017. Financing National Adaptation Plans (NAP) Processes: Contributing to the achievement of nationally determined contribution (NDC) adaptation goals. Guidance Note. IISD. Available at <https://napglobalnetwork.org/resource/financing-national-adaptation-plan-nap-processes-contributing-achievement-nationally-determined-contribution-ndc-adaptation-goals/>.



2.5 Capacity-building and technical support

Many developing countries continue to face challenges with regard to the formulation and implementation of NAPs. These include, among others, challenges around institutional arrangements and coordination, the assessment of climate scenarios and their translation to local contexts and accessing financial and other support.

Capacity-building and technical support to address these and other challenges thus continues to be vital for many developing countries. Many bodies, organizations and programmes both under the Convention as well as outside the UNFCCC process provide this type of support, either directly targeted at the formulation and implementation of NAPs or at supporting adaptation in general. The following sections intend to provide an overview of the most prevalent ones.

Concrete examples of the technical support provided by these entities for the formulation and implementation of NAPs are also shared in the annual progress reports on the process to formulate and implement national adaptation plans as submitted by the UNFCCC secretariat to the Subsidiary Body for Implementation²³ as well as in the reports of the meetings of the LEG.²⁴

As mentioned throughout this publication it is important to recognize that the provision of capacity-building and technical support is often not a stand-alone activity but part of the provision of adaptation finance or of the assistance in developing and transferring adaptation technologies. Hence, while the bodies and organizations described in this chapter have a particular focus on capacity-building and technical support, entities described in other sections may also provide this kind of assistance.



Ruben van Wijngaarden/Unsplash

23 The annual progress reports are available at <https://unfccc.int/topics/adaptation-and-resilience/workstreams/national-adaptation-plans-naps/documents-national-adaptation-plans>.

24 Available at <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/least-developed-countries-expert-group-leg/workshops-meetings-leg/napa>.



2.5.1 Capacity-building and technical support under the UNFCCC

The Adaptation Committee

The AC is the overall advisory body to the COP on adaptation to the adverse effects of climate change. It is responsible for promoting overarching coherence and collaboration on adaptation under the Convention and the Paris Agreement and beyond. In addition, it provides technical support and guidance to Parties on all aspects of adaptation planning and implementation, ranging from the establishment of institutional arrangements to the monitoring, review and evaluation of adaptation and the reporting thereon. Finally, in collaboration with the LEG and other entities, it identifies the role of the UNFCCC in facilitating the delivery of adaptation support to all developing countries, including for the formulation and implementation of NAPs.

Through its activities it assists in identifying gaps and needs with regard to adaptation in

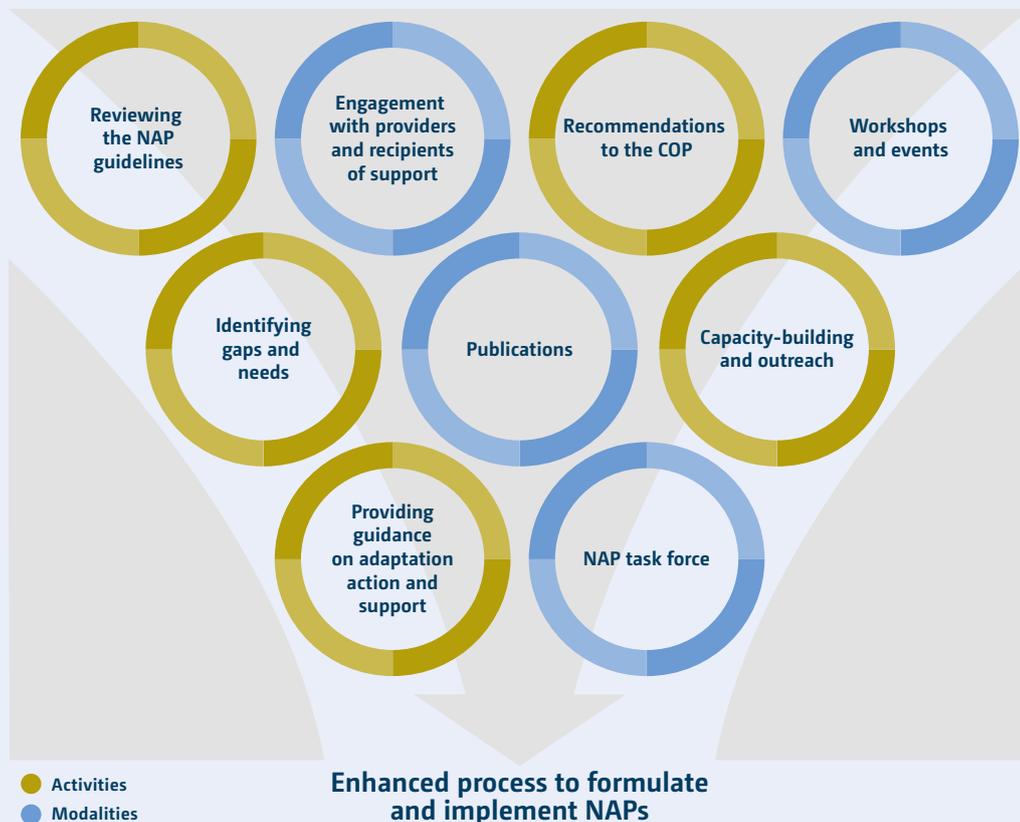
developing countries and facilitates outreach, capacity-building and the sharing of lessons learned, good practices and expert knowledge.

The modalities of its work include the publication of technical and information papers, briefs, bulletins, guidelines and event reports, the organization of workshops and other types of events as well as the engagement with providers and recipients of support.

It has established a NAP task force consisting of members of the AC and nominees from the LEG, the SCF, the TEC, the AF, the GEF and the GCF. One of the main functions of the task force is to follow up on the operationalization of modalities identified for the support of non-LDCs' NAPs, under the guidance of the AC.

The meetings of the AC are webcasted and open to observers and all its activities and publications are accessible via its [website](#).

FIGURE 6. The role of the Adaptation Committee in supporting the process to formulate and implement NAPs



Foreword

Introduction

Navigating the landscape of support for NAPs

Concluding remarks

Annex

Guidelines

Systematic observation, science and climate services

Information and knowledge

Finance

Capacity-building and technical support

Technology development and transfer

FURTHER INFORMATION

[Adaptation Committee.](#)

AC publications including in relation to NAPs are available at <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/adaptation-committee-ac/publications-bulletins-adaptation-committee>.

[Adaptation Finance Bulletin.](#)

The AC can be contacted at ac@unfccc.int.

the AC) the process to formulate and implement NAPs. It is mandated to provide technical guidance and advice on accessing funding from the GCF for the formulation and implementation of NAPs, in collaboration with the GCF secretariat, and to engage a wide range of organizations in implementing its work programme.

The LEG has been producing and organizing a range of material and activities that are of direct benefit to countries which are undertaking or wish to undertake the process to formulate and implement NAPs. These are summarized in figure 7. Some of them are further explained in subsequent sections.

The Least Developed Countries Expert Group

The LEG provides technical guidance and support to the LDCs on the NAPAs, the implementation of the LDC work programme and (together with

FIGURE 7. The role of the LEG in supporting the process to formulate and implement NAPs



In addition the LEG has initiated the following activities:

- The **NAP technical working group**, consisting of UN organizations, specialized agencies, regional networks and centres as well as bilateral and multilateral agencies with the aim of proving overall guidance and ensuring coherence and synergy of the technical work being provided to countries for the formulation and implementation of NAPs;
- The co-creative **Open NAP Initiative** which the LEG initiated to mobilize the widest inputs from all interested and available actors and stakeholders, including innovative approaches and open peer-reviewing, to support the LDCs and other interested developing countries, in the development of their NAP. It is mainly about open access to data and information as well as the mobilization of support.





FURTHER INFORMATION

[Least Developed Countries Expert Group.](#)

LEG publications including the technical guidelines and further information material on the process to formulate and implement NAPs are available at <https://unfccc.int/node/740>.

Information on LEG regional training workshops including training materials is available at <https://unfccc.int/topics/resilience/resources/leg-training>.

[The tool for monitoring, reviewing and assessing progress, effectiveness and gaps under the process to formulate and implement NAPs \(PEG M&E tool\).](#)

[NAP Expo.](#)

[NAP Central.](#)

[Open NAP Initiative.](#)

[NAP technical working group.](#)

The LEG can be contacted at LEGhelp@unfccc.int

The Consultative Group of Experts

The CGE assists developing country Parties in fulfilling their reporting requirements under the Convention and supports the implementation of the enhanced transparency framework under Article 13 of the Paris Agreement.

As part of executing its mandate it has developed training materials and conducted numerous regional hands-on training workshops on vulnerability and adaptation assessments. It also offers a compilation of reference materials on steps to integrate climate adaptation into development planning, and a list of regional centres of excellence that undertake technical work in the area of national communications.

FURTHER INFORMATION

[Consultative Group of Experts.](#)

Information and training material by the CGE is available at: <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/consultative-group-of-experts/cge-training-materials>.

The CGE can be contacted at tisu@unfccc.int.

The Paris Committee on Capacity-Building

The PCCB was established in 2015 to address current and emerging gaps and needs in implementing and further enhancing climate-related capacity-building in developing countries. It is also responsible for enhancing the coherence and coordination of capacity-building efforts so as to avoid the duplication of efforts of the various actors.

To that end it strengthens networks and partnerships and promotes knowledge- and experience-sharing. It also facilitates access to information and knowledge for enhancing climate action and for measuring progress in capacity-building over time.

Stakeholders at all levels can join the [PCCB Network](#) which aims to foster synergies and enhance coherence and coordination in climate-related capacity-building. Under the network, knowledge exchange events such as the Capacity-building Hubs or events during the UNFCCC [Regional Climate Weeks](#), are organized and information is disseminated, e.g. through the Capacity-building Portal. Members also receive a periodic newsletter including a calendar of capacity-building events and information on current or upcoming activities undertaken by network members. They also have the opportunity to participate in exchanges of expert knowledge and advice and receive exclusive spaces for networking during UNFCCC sessions and events.

The PCCB also maintains the [Capacity-building Portal](#) which is further described in section 2.3.1.

FURTHER INFORMATION

[Paris Committee on Capacity-Building.](#)

[PCCB Network.](#)

[Capacity-building hub.](#)

[Capacity-building Portal.](#)

The PCCB can be contacted at pccb@unfccc.int.

Foreword

Guidelines

Introduction

Systematic observation, science and climate services

Navigating the landscape of support for NAPs

Information and knowledge

Finance

Concluding remarks

Capacity-building and technical support

Annex

Technology development and transfer



2.5.2 Capacity-building and technical support outside of the UNFCCC process

Many UN and other multilateral and bilateral technical organizations and other entities are supporting countries in their formulation and implementation of NAPs either through targeted programmes or in the form of general adaptation support. Not all of these programmes can be described in this publication. Instead, this section will focus on the larger initiatives and groups of entities that offer support while programmes offered by individual organizations will be listed in the complementary [online information source](#).

UN4NAPs

UN4NAPs is a UN-wide rapid technical backstopping initiative to support, initially in LDCs and SIDS, the formulation and implementation of NAPs. Established by the UNFCCC secretariat, the partnership will enable the UN-wide system of organizations and other intergovernmental organizations to respond to technical requests identified by any country that is in the process of formulating or implementing its NAP.

The initiative offers a platform for countries to communicate their needs for technical support and advice on an ongoing basis, to which UN organizations can respond positively with responses. The technical support can range all the way from simple answers to technical questions to longer-term opportunities for engagement. The UNFCCC secretariat will thereby facilitate the ongoing collection of queries and requests from countries, and communicate with relevant participating organizations for their responses.

Countries are invited to submit their requests for support on a rolling basis. Profiles of all participating organizations, including their NAP-specific expertise, areas in which they can assist countries and their contact information is available on the [UN4NAPs website](#). Many of these organizations have also submitted supplements to the technical guidelines for the process to formulate and implement NAPs which provide a good overview of their specific technical expertise and areas in which they can provide support (see section 2.1 and annex 2).

FURTHER INFORMATION

UN4NAPs.

Profiles of a selection of participating organizations including their NAP-specific expertise and contact information are available at <https://unfccc.int/topics/adaptation-and-resilience/resources/united-nations-4-naps/resources>. Countries can submit their requests for support on a rolling basis via un4naps@unfccc.int.

Technical support programmes offered by individual UN organizations are available via the [online information source](#) on the landscape of support for NAPs.

NAP Global Network

The NAP Global Network supports developing countries to advance the process to formulate and implement NAPs with a view to accelerating climate change adaptation efforts around the world. Established in 2014 the Network today connects over 1,500 participants representing adaptation decision-makers and practitioners from more than 150 developing countries working on the formulation and implementation of NAPs as well as representatives of bilateral development partners that provide support for adaptation.

Its three main activities are:

- Supporting national-level action through short-term and long-term technical assistance for NAP development and implementation provided via the [Country Support Hub](#) and [in-country NAP support programmes](#) (1-4 years);
- Facilitating sustained South-South peer learning and exchange (through targeted topics forums, peer learning summits and the South-South Peer Exchange Program);
- Providing analyses, communications and knowledge products based on the engagement with countries' adaptation practitioners.

Short-term support via the Country Support Hub is provided in the form of targeted in-country technical support (e.g. the development of a financing strategy, gender analysis or M&E indicators) or in the form of online expert advice from a member of the Network Secretariat or the growing roster of experts. Both types of support can be requested via an online form at any time and for free.



So far, the network has focused on the following nine key themes: (i) gender, (ii) monitoring, evaluation and learning, (iii) private sector engagement, (iv) nature-based solutions, (v) vertical integration, (vi) strategic communication, (vii) NDC-NAP alignment, (viii) sector integration, and (ix) financing the formulation and implementation of NAPs.

For all activities particular attention is given to enhancing bilateral support through donor coordination and alignment with recipient country priorities. Therefore, the steering committee of the Network is composed of

representatives of developing countries as well as bilateral donor agencies. The Network is hosted by the International Institute for Sustainable Development and funded by Germany, the US, the UK, Canada, Ireland and Austria.

Participation in the Network is open to all on an individual basis.

FURTHER INFORMATION

[NAP Global Network](#).

The request form for submitting requests for short-term support is available at <https://napglobalnetwork.org/country-support-hub/>.

Foreword

Guidelines

Introduction

Systematic observation,
science and climate servicesNavigating the landscape
of support for NAPsInformation and
knowledge

Finance

Concluding remarks

Capacity-building and
technical support

Annex

Technology development
and transfer

Yaroslav Shuraev/Pexels



Global Center on Adaptation

The GCA works as a solutions broker to accelerate and scale action and support for adaptation solutions, from the international to the local levels and in partnership with the public and private sectors. It was founded in 2018 and is steered by a Board of 20 members representing high-level leaders from developed and developing countries as well as multilateral development banks and other institutions. It collaborates with a range of partners around the world, from local to national governments, universities and research institutes, companies and social enterprises, civil society organizations and youth groups that help to create knowledge where it is needed and to design and implement programmes in countries.

The GCA works around three pillars of activity: (i) programmes and action, including programme design, finance mobilization, advice and procurement of delivery partners; (ii) knowledge acceleration, through effective knowledge generation and management as well as the driving of innovation and (iii) agenda setting and advocacy by using its convening power and producing landmark reports.

In its six programmes it focuses on (i) youth leadership, (ii) water and urban, (iii) infrastructure and nature-based solutions, (iv) locally-led action, (v) climate finance and (vi) food security. In addition, it has set up the Africa Adaptation Acceleration Program in 2021 in partnership with the African Development Bank which aims at addressing the impacts of Covid-19, climate change and the economy. The program consists of the following initiatives:

- Climate Smart Digital Technologies for Agriculture and Food Security;
- Infrastructure Resilience Accelerator;
- Empowering Youth through Jobs and Entrepreneurship;
- Innovative Financial Initiatives for Africa.

Participation in GCA programmes and activities requires partaking in a competitive selection. Selected parties are directly invited by the GCA to

respond to a tender. Other interested parties are invited to respond to Requests for Proposals which are regularly published on the GCA's website.

FURTHER INFORMATION

[Global Center on Adaptation.](#)

Requests for proposals are published at <https://gca.org/about-us/procurement/>.

For more information on the Africa Adaptation Acceleration Program contact the Regional Director for Africa, Mr. Anthony Nyong at Anthony.Nyong@gca.org.

National designated authorities, entities and focal points

GCF National Designated Authorities or focal points, Adaptation Fund Designated Authorities, GEF Operational Focal Points and CTCN National Designated Entities are government officials or nominated representatives who act as the interface and primary points of contact between a country and the UNFCCC secretariat, the climate funds, or the Technology Mechanism/Climate Technology Centre and Network. In their role as contact points for the UNFCCC they act as the primary contact person for all activities pertaining to the UNFCCC. Focal points or designated authorities to the funds are responsible, for example, for communicating, on behalf of their national government, the country's priorities for financing climate-resilient development, endorsing the accreditation applications of national or regional implementing entities and/or proposals by national, regional or multilateral implementing entities for adaptation projects and programmes. Designated entities to the Technology Mechanism serve as national entities for the development and transfer of technologies. They also act as focal points for interacting with the Climate Technology Centre and Network and in this capacity draft and compile enquiries on technology cooperation and forward these to the international network.

As such, focal points and designated authorities/entities uphold a good strategic overview of their country's state of vulnerability and ongoing adaptation efforts and possess the technical expertise to advise any potential implementing entity on technical and financial issues around their planned adaptation endeavour.



FURTHER INFORMATION

[UNFCCC national focal points.](#)

[Global Environment Facility focal points.](#)

[Green Climate Fund national designated authorities.](#)

[Adaptation Fund designated authorities.](#)

[Technology Mechanism national designated entities.](#)

Regional centres and networks

Regional centres and networks play an indispensable role in supporting countries in their region on all aspects of the formulation and implementation of NAPs. They possess the specific technical, regional and cultural expertise that is needed to establish trustful relationships with the countries and to respond to their priorities.

Many regional centres and networks are therefore aligning their adaptation work with the needs identified in regional and national development plans, including NAPs.²⁵ Although not all of them provide direct support to countries for the formulation and implementation of NAPs, many provide training and services in related areas. These include: the generation and analysis of climate data and the provision of climate services; impact, vulnerability and risk assessments; development of tools to identify adaptation priorities; the preparation of a pipeline of adaptation projects capable of attracting development financing; stakeholder engagement and communication services.

FURTHER INFORMATION

A list of regional centres and networks working on adaptation, including the type of support they provide, their focus regions and sectors as well as their contact information is available at <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/adaptation-committee-ac/areas-of-work/regional-centres-and-networks>.

Adaptation Committee. 2014. Information paper: Strengthening the understanding of the roles of regional institutions and UN agencies in supporting enhanced adaptation actions in developing countries. Available at https://unfccc.int/files/adaptation/cancun_adaptation_framework/adaptation_committee/application/pdf/ac5_un_and_regional_support_for_adaptation_27feb.pdf.

²⁵ Adaptation Committee information paper on Strengthening the understanding of the roles of regional institutions and UN agencies in supporting enhanced adaptation in developing countries. Available at https://unfccc.int/files/adaptation/cancun_adaptation_framework/adaptation_committee/application/pdf/ac5_un_and_regional_support_for_adaptation_27feb.pdf.

Implementing entities

Implementing entities in a wider sense are all entities, whether public or private, that assist countries in implementing adaptation projects and programmes drawing on their technical and regional expertise. They can be sub-national, national, regional or international/multilateral and range from private enterprises, civil society organizations, research organizations and bilateral development cooperation agencies over national sectoral agencies and regional centres, networks and development banks to multilateral development banks and UN and other inter-governmental organizations.

In case they act as accredited implementing entities of one of the climate funds, they assist countries in converting project and programme concepts into action while adhering to the respective fund's investment framework as well as the priorities of the recipient country government. For this they not only need to have the required expertise and experience but also meet the pre-defined fiduciary and safeguarding standards of the fund. They also work alongside countries to come up with project ideas, and submit funding proposals. During the implementation phase of a project they are responsible for the overall management and monitoring.

Many of the regional centres and networks listed in the previous section also act as implementing entities.

FURTHER INFORMATION

[Accredited Entities of the Green Climate Fund.](#)

[Implementing Entities of the Adaptation Fund.](#)

[GEF agencies.](#)

A list of bilateral development cooperation agencies is available at <https://unfccc.int/topics/climate-finance/resources/multilateral-and-bilateral-funding-sources>.



2.6 Technology development and transfer

Developing countries have expressed the need for support in accessing and deploying adaptation technologies, including as part of their process to formulate and implement NAPs. Support needs range from financial resources for a given technology, the strengthening of institutions and human resources for technology research and development to capacity-building and the establishment of information and awareness-raising programmes.²⁶

As these needs tap into the other categories of support required for adaptation many of the entities described throughout this publication dedicate parts of their portfolios to the development, transfer and use of adaptation technologies. This chapter therefore describes only those entities and initiatives that include the development and transfer of technologies as one of their primary focus areas.

2.6.1 Facilitation of technology development and transfer under the UNFCCC

Under the UNFCCC, the facilitation, acceleration and scale-up of the development and transfer of climate technologies, including those addressing adaptation and climate-resilient development, is conducted by the **Technology Mechanism** which was established by Parties in 2010 (see figure 7). It consists of two complementary bodies – the Technology Executive Committee and the Climate Technology Centre and Network.

In addition, the operating entities of the Financial Mechanism as well as the Adaptation Fund also provide support for the development and transfer of climate adaptation technologies.

The Technology Executive Committee

The TEC is the policy arm of the Technology Mechanism. It focuses on identifying countries' technology needs (e.g. based on **technology needs assessments**) and policies that can accelerate

Foreword

Introduction

Navigating the landscape of support for NAPs

Concluding remarks

Annex

Guidelines

Systematic observation, science and climate services

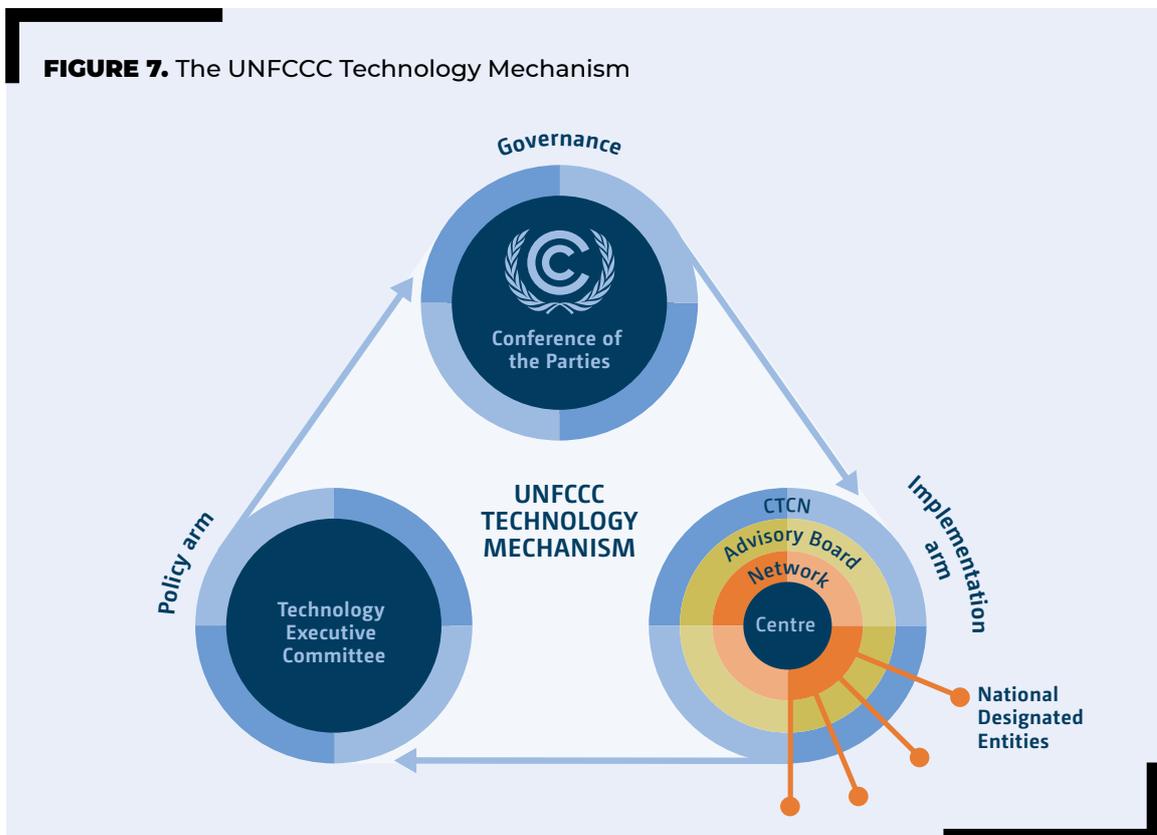
Information and knowledge

Finance

Capacity-building and technical support

Technology development and transfer

FIGURE 7. The UNFCCC Technology Mechanism



26 UNFCCC. 2020. Fourth synthesis of technology needs identified by Parties not included in Annex I to the Convention. Information paper by the secretariat. Contained in FCCC/SBI/2020/Inf.1. Available at <https://unfccc.int/documents/218506>.



the development and transfer of low-emission and climate resilient technologies. It provides policy recommendations to the COP on proven measures that countries may take to speed up climate technology action, and issues policy briefs (TEC Briefs) and other technical documents, to enhance information sharing on climate technology efforts. A list of TEC briefs and documents relating to adaptation technologies and the process to formulate and implement NAPs is provided below.

The TEC works closely with key partners and stakeholders to provide inclusive recommendations that are up-to-date and cutting-edge. Its meetings are webcasted and open to observers and it regularly engages partners through meetings, workshops and dialogues.

FURTHER INFORMATION

[The Technology Executive Committee.](#)

Key policy recommendations by the TEC on adaptation technologies are available at <https://unfccc.int/ttclear/policies>.

Technology Executive Committee. 2013. Possible integration of the TNA process with NAMA and NAP processes. TEC Brief. Available at https://unfccc.int/ttclear/misc/_StaticFiles/gnwoerk_static/TEC_column_L/4f-85c880f1b54a6bb1ed32a3b7e1bc94/7262a425eab84a-c8a0ab4a5980d7e58d.pdf.

Technology Executive Committee. 2013. Using roadmapping to facilitate the planning and implementation of technologies for mitigation and adaptation. TEC Brief. Available

at https://unfccc.int/ttclear/misc/_StaticFiles/gnwoerk_static/TEC_column_L/3aaf07d4cf1d4d51998b57771759880a/f427db90b3c54f2d979f984db5af18ce.pdf.

Technology Executive Committee. 2014. Technologies for adaptation in the agriculture sector. TEC Brief #4. Available at https://unfccc.int/ttclear/misc/_StaticFiles/gnwoerk_static/TEC_column_L/544babb207e344b88bdd9fe-c11e6337f/bcc4dc66c35340a08fce34f057e0a1ed.pdf.

Technology Executive Committee. 2014. Technologies for adaptation in the water sector. TEC Brief #5. Available at https://unfccc.int/ttclear/misc/_StaticFiles/gnwoerk_static/TEC_column_L/ocac6640a3b945c08e7a54f-8e496223e/55e192e14cd6495f975f4098843baf7e.pdf.

Technology Executive Committee. 2017. South-South cooperation and triangular cooperation on technologies for adaptation in the water and agricultural sectors. TEC Brief #9. Available at <https://unfccc.int/ttclear/tec/brief9.html#Brief9>.

Technology Executive Committee. 2019. Potential of South-South and triangular cooperation on climate technologies for advancing implementation of nationally determined contributions and national adaptation plans. TEC publication. Available at https://unfccc.int/ttclear/misc/_StaticFiles/gnwoerk_static/TEC_column_L/4f-85c880f1b54a6bb1ed32a3b7e1bc94/7262a425eab84a-c8a0ab4a5980d7e58d.pdf.

The TEC can be contacted at tec@unfccc.int.

The Climate Technology Centre and Network

The CTCN is the implementation arm of the Technology Mechanism. It is hosted by UNEP and supported by a Consortium of 14 additional leading climate technology institutions. Through its global network, consisting of over 700 academic, civil society,



Chris Flexen/Unsplash



finance, private sector and research institutions, the CTCN promotes the accelerated transfer of environmentally sound technologies for energy-efficient, low carbon and climate-resilient development at the request of developing countries. It provides technology solutions, capacity building and advice on policy, legal and regulatory frameworks tailored to the needs of individual countries. As of March 2022, it has served 108 countries.

The CTCN provides three core services:

- Providing **technical assistance** at the request of developing countries to accelerate the transfer of climate technologies;
- Developing capacity and creating access to a vast repository of information and knowledge on a wide range of climate technologies, including those relevant for adaptation and NAPs;
- Fostering collaboration among climate technology stakeholders via the Centre's network of regional and sectoral experts from academia, civil society, finance, the private sector, the public sector, and research institutions.

In terms of technical assistance the CTCN provides the following types of support which are relevant for the formulation and implementation of NAPs:

- Technical assessments, including technical expertise and recommendations related to specific technology needs, identification of technologies, technology barriers, technology efficiency, as well as piloting and deployment of technologies;
- Technical support for policy and planning documents, including strategies and policies, roadmaps and action plans, regulations and legal measures (e.g. the [CTCN Incubator Programme for LDCs](#) which aims at supporting LDCs in developing technology roadmaps and capacity-building to develop GCF concept notes in view of reaching their NDC adaptation and mitigation targets);
- Trainings and capacity-building through a range of programmes;
- Tools and methodologies;
- Implementation plans.



Stijn Dijkstra/Pexels



The CTCN does not provide funding directly to countries, but instead supports the provision of technical assistance by experts on specific climate technology sectors. This assistance is free of charge for a country for up to USD 250,000. In addition, a country can request fast technical assistance for a short time response (up to two months) with a limited value of USD 15,000 and with a focus on technology prioritization, endogenous technologies assessment, policies and measures that are immediate priorities for the requesting country. The number of requests that each country may submit to the CTCN is not limited as long as the CTCN has not reached its capacity for responding to requests. The CTCN also collaborates with the operating entities of the Financial Mechanism and the Adaptation Fund to facilitate developing countries' access to climate finance for climate technology support (see the section below).

In some cases the CTCN can also assist in playing a matchmaking role between a country's technology service providers and funding sources. In response to the growing demand from developing countries for climate technology-related support, including climate adaptation technologies, and following guidance from COP26, the CTCN will be considering new modalities of support in its third Programme of Work (2023-2027).

FURTHER INFORMATION

[Climate Technology Centre and Network Portal](#).

A list of CTCN national designated entities is available at <https://www.ctc-n.org/about-ctcn/national-designated-entities>.

An overview of the services that the CTCN provides and how to request them is available at <https://www.ctc-n.org/technical-assistance>.

[CTCN capacity-building](#).

[CTCN Incubator Programme for LDCs](#)

Support by the operating entities of the UNFCCC's Financial Mechanism and the Adaptation Fund

The operating entities of the Financial Mechanism of the Convention and the Paris Agreement have also been mandated by Parties to provide funding for the development and

transfer of climate technologies, including for adaptation technologies.

The GCF does this through its [Readiness and Preparatory Support Programme](#) as well as its regular funding windows. It has also been working on a Request for Proposals to support climate technology incubators and accelerators in developing countries, with the involvement of the CTCN, among others.

The GEF has established the [Poznan strategic program](#) on technology transfer through which it supports countries in undertaking technology needs assessments, developing technology pilot projects and implementing projects that target the use of climate technologies. The program has also supported climate technology centres and a climate technology network as well as public-private partnerships for technology transfer.

The Adaptation Fund supports the USD 10 million [Climate Innovation Accelerator programme](#) that aims at fostering innovation in adaptation in developing countries. Under the programme, governments, non-governmental organizations, community groups, young innovators and other groups can access small grants (up to USD 250,000 each) in support of innovation for effective, long-term adaptation to climate change. The CTCN, in conjunction with UNEP, works as an executing entity of this programme.

Innovations or solutions that have already been demonstrated to work can be scaled up or rolled out in new countries and regions through the large grants mechanism (up to USD 5 million each). Both, the AFCIA and the large grants mechanism are part of the AF's [Innovation Facility](#) which emerged from the innovation pillar of the Fund's [Medium-Term Strategy for 2018-2022](#).

FURTHER INFORMATION

[GCF support for technology](#).

[GEF Poznan Strategic Program](#).

[Adaptation Fund's Innovation Facility](#).

[UNEP/CTCN Adaptation Fund Climate Innovation Accelerator \(AFCIA\)](#).

[UNDP Adaptation Fund Climate Innovation Accelerator \(AFCIA\)](#).



2.6.2 Facilitation of technology development and transfer outside of the UNFCCC process

As mentioned in previous sections, support for the development and transfer of adaptation technologies is provided in different forms by many of the entities described in this publication. This section presents a few selected organizations that provide particular support to countries or individual entities on the various aspects of the development, transfer and deployment of climate-relevant technologies.

The UNEP Copenhagen Climate Centre

The UNEP CCC, formerly UNEP DTU Partnership, is a leading international research and advisory institution on energy, climate and sustainable development. It counts with expertise and experience in environmental, developmental and technological areas and from all geographical regions. Its aim is to assist developing countries in transitioning towards more low carbon development paths, and in integrating climate-resilience in national development through research, policy analysis and capacity-building. One of its five areas of specialization is technology – transitions and system innovation under which it identifies and assesses barriers and enablers for climate technology transfer and diffusion with a focus on country needs, market-based innovation and enabling frameworks.

As part of its focus area “Business Models and Markets” UNEP CCC supports governments, cities and the private sector in developing countries and emerging economies to accelerate climate action implementation through market development and innovative business models. To that end it provides global level guidance based on best practice examples, technical assistance and capacity-building and facilitates partnerships between public and private entities. The goal is to further promote the dissemination and uptake of clean and climate-resilient technologies and practices, based on local innovation and production where possible.

As part of its focus area “Climate Planning and Policy” its goal is to help countries in developing and implementing sound climate actions as an integral part of national development planning and policies, e.g. through the uptake and diffusion of mitigation and adaptation technologies via the expansion of Technology Needs Assessments, accelerated action to implement Technology Action Plans, and stronger links to the NDCs.

The UNEP CCC maintains a large stock of publications and other information resources as well as a podcast on climate technologies.

FURTHER INFORMATION

[UNEP Copenhagen Climate Center.](#)

[UNEP CCC focus area on Climate Planning and Policy.](#)

[UNEP CCC focus area on Business Models and Markets.](#)

The United Nations Industrial Development Organization

The UNIDO is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability. It has four enabling functions: (i) technical cooperation; (ii) analytical and research functions and policy advisory services; (iii) normative functions and standards and quality-related activities; and (iv) convening partnerships for knowledge transfer, networking and industrial cooperation.

As part of its paradigm of inclusive and sustainable industrial development UNIDO provides policy advice, vulnerability assessments, capacity-building and other support to governments and industries for the implementation of adaptation technologies that have synergies with mitigation technologies. It thereby focuses particularly on the water sector and on ecosystem management.

FURTHER INFORMATION

[UNIDO.](#)

[UNIDO Industry and adaptation.](#)



UN Technology Bank for the LDCs

The UN Technology Bank for the LDCs became operational in 2018 and is a global organization dedicated to building the science, technology and innovation capacity that LDCs need to promote the structural transformation of their economies, eradicate poverty and foster sustainable development. It supports national and regional technological efforts, reinforces partnerships across sectors and helps nations identify and use appropriate technologies to transform their economies and improve livelihoods.

The Bank supports capacity development, including the capacity to identify, absorb, develop, integrate and scale up the deployment

of technologies and innovations, including indigenous ones, as well as the capacity to address and manage intellectual property rights issues. It also supports the development and implementation of national and regional science, technology and innovation strategies as well as partnerships and cooperation between countries as well as between science, technology and innovation stakeholders, including from the public and private sectors. Finally, it facilitates the identification and utilization of and access to appropriate technologies by the LDCs through e.g. support for technology needs assessments and technology transfer programmes.

FURTHER INFORMATION

[UN Technology Bank for the LDCs.](#)



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Foreword

Guidelines

Introduction

Systematic observation,
science and climate servicesNavigating the landscape
of support for NAPsInformation and
knowledge

Finance

Concluding remarks

Capacity-building and
technical support

Annex

Technology development
and transfer



The World Trade Organization

The WTO deals with the rules of trade between nations with the primary goal of ensuring that trade flows as smoothly, predictably and freely as possible. To this end, it operates a global system of trade rules, acts as a forum for negotiating trade agreements, settles trade disputes between its members and supports the needs of developing countries.

Through certain provisions of its agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) it contributes to both the innovation of mitigation and adaptation – related technologies as well as their diffusion by ensuring a balance between the interests of creators and inventors of technology on the one hand and those of its users on the other. For example, Art. 7 of the TRIPS Agreement recognizes that the protection and enforcement of intellectual property rights “should contribute to the promotion of technological innovation and the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations”.

Article 66.2 requires developed country members to provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to LDC members in order to enable them to create a sound and viable technological base. The TRIPS Agreement also positively requires full disclosure of information about how to implement a patented invention – in particular so that the invention can be carried out by a suitably skilled technician. In general, LDCs have so far been exempt from any TRIPS obligations other than respecting non-discrimination principles.

The WTO provides technical assistance to help members and observers implement an intellectual property regime that meets their developmental and other domestic policy objectives.

FURTHER INFORMATION

[World Trade Organization.](#)

[Trade and Climate Change.](#)

[Interface between climate change and the TRIPS Agreement.](#)

United Nations Office for South-South Cooperation

South–South cooperation is one of the most natural means for the identification, selection and transfer of adaptation technologies from developing countries to those regions and countries where they are in high demand. New adaptation technologies originating from developing countries are likely to be more suitable and cost-effective for other developing countries as they are well attuned to similar geo-climatic, cultural and/or socioeconomic conditions. Triangular cooperation also has a pivotal role in facilitating the transfer of adaptation technologies between developing countries by fostering communication and providing technical support and financial resources.²⁷

As such, the United Nations Office for South-South Cooperation may assist developing countries in accelerating such forms of cooperation through its advisory and consulting services which comprise, among others, policy and intergovernmental support, knowledge and advisory services, partnership building, South-South and triangular coordination, regional services, mobilization of resources and South-South trust fund management.

FURTHER INFORMATION

[United Nations Office for South-South Cooperation.](#)

UNFCCC. 2017. Compilation of good practices in effective knowledge-sharing and practical learning on climate adaptation technologies through South-South and triangular cooperation. Technology Executive Committee. Available at https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/brief9/a5fbac8997e84fef84a47d81d-ba46279/3762bead33cd42e989361241cfbb6fc7.PDF.

²⁷ UNFCCC. 2017. Compilation of good practices in effective knowledge-sharing and practical learning on climate adaptation technologies through South-South and triangular cooperation. Technology Executive Committee. Available at https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/brief9/a5fbac8997e84fef84a47d81dba46279/3762bead33cd42e989361241cfbb6fc7.PDF.



3

CONCLUDING REMARKS

The process to formulate and implement national adaptation plans is the key instrument in enabling countries to address their medium- and long-term adaptation needs in a coherent and strategic manner. Commensurate with the magnitude of the process the support needs of developing countries are immense. At the same time, the landscape of support available

to them has greatly expanded over the years and counts with an extensive number of opportunities in all areas of support. Through this report the Adaptation Committee has made an effort of providing a broad overview of such opportunities and will keep updating the information as countries' needs and the available support continue to evolve.



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ANNEX 1: MAIN STEPS UNDER EACH OF THE ELEMENTS OF THE PROCESS TO FORMULATE AND IMPLEMENT NATIONAL ADAPTATION PLANS

ELEMENT A.	LAY THE GROUNDWORK AND ADDRESS GAPS
1	Initiating and launching of the NAP process
2	Stock-taking: identifying available information on climate change impacts, vulnerability and adaptation and assessing gaps and needs of the enabling environment for the NAP process
3	Addressing capacity gaps and weaknesses in undertaking the NAP process
4	Comprehensively and iteratively assessing development needs and climate vulnerabilities
ELEMENT B.	PREPARATORY ELEMENTS
1	Analysing current climate and future climate change scenarios
2	Assessing climate vulnerabilities at the sector and other levels, and identifying adaptation options
3	Reviewing adaptation options
4	Compiling and communicating a National Adaptation Plan
5	Integrating climate change adaptation into national and subnational development and sectoral planning
ELEMENT C.	IMPLEMENTATION STRATEGIES
1	Prioritizing climate change adaptation
2	Developing a (long-term) national adaptation implementation strategy
3	Enhancing capacity for planning and implementing adaptation
4	Promoting coordination and synergy at the regional level and with other multilateral environmental agreements
ELEMENT D.	REPORTING, MONITORING AND REVIEW
1	Monitoring the NAP process
2	Reviewing the NAP process to assess progress, effectiveness and gaps
3	Iteratively updating the NAP
4	Outreach on the NAP process and reporting on progress and effectiveness

The elements A to D for the formulation of NAPs are provided in decision 5/CP.17, annex. The steps in the table are numbered for ease of reference, however, it is understood that countries will choose which steps are applicable for their country-specific situation, and in which order they would be undertaken.



ANNEX 2: SUPPLEMENTS TO THE TECHNICAL GUIDELINES FOR THE PROCESS TO FORMULATE AND IMPLEMENT NATIONAL ADAPTATION PLANS (AS OF JULY 2022)

All supplements are available on NAP Central at <https://www4.unfccc.int/sites/NAPC/Guidelines/Pages/Supplements.aspx>.

ORGANIZATION	SUPPLEMENTS TO THE NAP TECHNICAL GUIDELINES	YEAR
The International Federation of Red Cross and Red Crescent Societies (IFRC)	How to Engage with National Adaptation Plans: Guidance for National Red Cross and Red Crescent Societies	2013
The Convention on Biological Diversity (CBD)	Promoting synergies in addressing biodiversity and climate change adaptation issues: linking national adaptation plans and national biodiversity strategies and action plans	2014
Gesellschaft fuer Internationale Zusammenarbeit (GIZ)	Aligning National Adaptation Plan (NAP) Processes to Development and Budget Planning	2014
Gesellschaft fuer Internationale Zusammenarbeit (GIZ)	The Stocktaking for National Adaptation Planning (SNAP) Tool	2014
The Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA)	Supporting NAP Development with the PROVIA Guidance: A User Companion	2014
Southern Voices on Climate Change (SV)	Civil-Society Guide to the LEG/NAP Technical Guidelines	2014
The World Health Organization (WHO)	Guidance to protect health from climate change through health adaptation planning	2014
Conservation International (CI)	Tool for integration of ecosystems into climate change adaptation planning processes, DRAFT	2015
Gesellschaft fuer Internationale Zusammenarbeit (GIZ)	Guidebook on Developing National Adaptation Monitoring and Evaluation Systems	2015
The Food and Agriculture Organization (FAO)	Guidelines to Support the Integration of Genetic Diversity into Climate Change Adaptation Planning and NAPs	2015
Indigenous Peoples of Africa Coordinating Committee (IPACC)	Guidelines towards integrating African Indigenous and Traditional Knowledge in National Adaptation Plans, Platforms and Policies	2015
NAP Global Support Programme (NAP GSP)	National adaptation plan process country-level training- Capacity development for multi-sectoral involvement in the NAP process	2015
Southern Voices on Climate Change (SV)	Joint Principles for Adaptation; National Adaptation Policy Assessment Tool	2015
United Nations Institute for Training and Research (UNITAR)	Skills assessment for National Adaptation Planning - how countries can identify the gap	2015
The World Health Organization (WHO)	Operation framework for building climate resilient health systems	2015



ORGANIZATION	SUPPLEMENTS TO THE NAP TECHNICAL GUIDELINES	YEAR
World Meteorological Organization (WMO)	Climate Services for Supporting Climate Change Adaptation: Supplement to the Technical Guidelines for the National Adaptation Plan Process	2015
International Telecommunication Union (ITU)	Information and Communication Technologies for Climate Change Adaptation in Cities	2016
NAP Global Network	Vertical Integration in national adaptation plan processes	2017
International Institute for Environment and Development (IIED)	National adaptation plans: understanding mandates and sharing experiences	2017
The Food and Agriculture Organization (FAO)	Addressing Agriculture, Forestry and Fisheries in National Adaptation Plans	2017
NAP Global Network	Financing National Adaptation Plan (NAP) Process: Contributing to the achievement of nationally determined contribution (NDC) adaptation goals	2017
Climate Change Adaptation and Food Security (CCAFS)	10 best bet innovations for adaptation in agriculture: A supplement to the UNFCCC NAP Technical Guidelines	2017
UN HABITAT	Addressing Urban and Human Settlements Issues in National Adaptation Plans	2018
The UN Capital Development Fund (UNCDF)	Financing Local Adaptation to Climate Change	2019
Global Water Partnership (GWP)	Addressing Water in National Adaptation Plans: Water Supplement to the UNFCCC NAP Technical Guidelines	2019
NAP Global Network and UNFCCC	Toolkit for Gender-Responsive Processes to Formulate and Implement National Adaptation Plans (NAPs)	2019
The Food and Agriculture Organization (FAO)	Addressing fisheries and aquaculture in National Adaptation Plans	2020
The Food and Agriculture Organization (FAO)	Addressing forestry and agroforestry in National Adaptation Plans	2020
NAP Global Network and Friends of Ecosystem-based Adaptation (FEBA)	Building Resilience with Nature – Maximizing ecosystem-based adaptation through National Adaptation Plan processes	2021
United Nations Environment Programme (UNEP)	Guidelines for Integrating Ecosystem-based Adaptation into National Adaptation Plans	2021
The World Health Organization (WHO)	Quality criteria for Health National Adaptation Plans	2021
United Nations Office for Disaster Risk Reduction (UNDRR)	Promoting Synergy and Alignment: Between Climate Change Adaptation and Disaster Risk Reduction in the Context of National Adaptation Plans	2021
United Nations Framework Convention on Climate Change (UNFCCC)	Coastal adaptation and nature-based solutions for the implementation of NAPs: considerations for GCF proposal development	2021
World Meteorological Organization (WMO) and Green Climate Fund (GCF)	Developing the Climate Science Basis for Climate Action	2021
CGIAR Research Program on Climate Change, Agriculture and Food Security	Digital agriculture to enable adaptation: A supplement to the UNFCCC NAP Technical Guidelines.	2021
Commonwealth Secretariat	Toolkit to Enhance Access to Climate Finance: A Commonwealth Practical Guide	2022



ANNEX 3: MEMBERS OF THE ADAPTATION COMMITTEE IN 2021/2022

NAME	COUNTRY
Ms. Mariam Allam	Egypt
Mr. Naeem Ashraf Raja	Pakistan
Ms. Karina Barrera	Ecuador
Ms. Shella Biallas	United States of America
Mr. Julio Cordano	Chile
Ms. Cecilia da Silva Bernardo	Angola
Ms. Maria del Pilar Bueno	Argentina
Ms. Alice Gaustad	Norway
Mr. Javier Antonio Gutierrez Ramirez	Nicaragua
Ms. Britta Horstmann	Germany
Mr. Kazem Kashefi	Iran
Mr. Vladimir Kattsov	Russian Federation
Mr. Clifford Mahlung	Jamaica
Ms. Rita Mishaan Rossell	Guatemala
Ms. Rosa Morales Saravia	Peru
Ms. Funanani Muremi	South Africa
Ms. Rhianna Riley	Barbados
Ms. Alessandra Sgobbi	Italy
Ms. Liu Shuo	China
Ms. Giuliana Torta	Italy
Ms. Irina Trofimova	Ukraine
Ms. Tshering Yangzom	Bhutan

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