

**Paris Committee on Capacity-building (PCCB)**  
**Call for submissions from Parties and non-Party stakeholders:**  
*2023 PCCB focus area*

**‘Capacity-building support for adaptation, with a focus on addressing gaps and needs related to formulating and implementing national adaptation plans’**

**Background**

The PCCB aims to address gaps and needs, both current and emerging, in implementing capacity-building in developing country Parties and further enhance capacity-building efforts. Current priority areas are:

- a) Enhancing coherence and coordination of capacity-building under the Convention;
- b) Identifying capacity gaps and needs, both current and emerging, and recommending ways to address them;
- c) Promoting awareness-raising, knowledge- and information-sharing and stakeholder engagement.

To learn more about the work of the PCCB, you can access its annual reports and other documents [here](#).

**Topic for submissions**

The PCCB annually focuses on an area related to enhanced technical exchange on capacity-building. It determined, in its 2021-2024 workplan, to make calls for submissions from Parties and non-Party stakeholders on the annual PCCB focus area.

**The PCCB focus area for 2023 is:**

‘Capacity-building support for adaptation, with a focus on addressing gaps and needs related to formulating and implementing national adaptation plans (NAPs)’

The focus area was agreed after the PCCB participated in a coherence and collaboration dialogue with constituted bodies held by the Adaptation Committee (AC) on 14 June 2022, aiming at jointly catalyzing enhanced support in that regard.

Through its 2023 focus area the PCCB aims to contribute to a better understanding of existing and emerging capacity gaps and needs as well as challenges, case studies, good practices, tools and lessons learned with regard to capacity-building support for adaptation, especially as it relates to addressing gaps and needs of developing countries in formulating and implementing their NAPs. In implementing its 2023 focus area and as part of its mandate to enhance the coherence and coordination of capacity-building efforts under the Convention and Paris Agreement, the PCCB will liaise closely with the AC and aims to directly engage the AC, LEG and other relevant bodies and entities in its work, with a view to effectively building on their previous, relevant efforts as well as informing and contributing to their ongoing and future work in this area.

**Who can submit?**

The call is open to all UNFCCC Parties and non-Party stakeholders, such as public and private sector entities, government and non-government organizations, philanthropic organizations, academic and research organizations, international and regional organizations or initiatives, and UNFCCC constituted bodies.

**How will the inputs be used?**

The inputs will feed into the PCCB's workplan activities in 2023, including a focus area day at the 5th Capacity-building Hub at COP 28, and envisaged regional activities and webinars. The inputs will also inform the design and preparations of the 12th Durban Forum on capacity-building to be held during the Bonn Climate Change

Conference in June 2023. The PCCB supports the SBI in aligning the theme of the Durban Forum on capacity-building with the annual focus area of the PCCB at the request of the COP.

### Submissions form

We thank you in advance for filling out this template with concise, evidence-based information and for referencing all relevant sources. There are 2 sections in this template:

- *Details about your organization*
- *Guiding questions about capacity-building support for adaptation, with a focus on addressing gaps and needs related to formulating and implementing national adaptation plans (NAPs)*

### Further information:

You are welcome to provide any other information and suggestions that your organization/entity would like to highlight in response to this call for submissions.

Address for submission: [pccb@unfccc.int](mailto:pccb@unfccc.int)

Deadline for submissions: 28 February 2023

### PART I:

*Please only fill out sections relevant to the work of your organization. Please note that no section is mandatory.*

#### Organization or entity name:

World Meteorological Organization (WMO).

#### Type of organization:

*Please choose as appropriate:*

- |  |   |
|--|---|
| <input type="checkbox"/> Intergovernmental organization                  | <input type="checkbox"/> Development bank / financial institution   |
| <input checked="" type="checkbox"/> UN and affiliated organization       | <input type="checkbox"/> Non-governmental organization              |
| <input type="checkbox"/> International network, coalition, or initiative | <input type="checkbox"/> Research organization                      |
| <input type="checkbox"/> Regional network, coalition, or initiative      | <input type="checkbox"/> University/education/training organization |
| <input type="checkbox"/> Public sector entity                            | <input checked="" type="checkbox"/> Private sector entity           |
| <input type="checkbox"/> Development agency                              | <input type="checkbox"/> Philanthropic organization                 |
|  | <input type="checkbox"/> Other (Please specify) _____               |

#### Organization Location

City: Geneva

Country: Switzerland

#### Scale of operation:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Global   | <input checked="" type="checkbox"/> Regional      |
| <input checked="" type="checkbox"/> Local    | <input checked="" type="checkbox"/> Subregional   |
| <input checked="" type="checkbox"/> National | <input checked="" type="checkbox"/> Transboundary |

#### City(ies)/Country(ies) of operation (if appropriate):

Worldwide

PART II:

Please only fill out sections that are relevant to the work of your organization/entity:

**In your experience, what are the key capacity gaps and needs of developing countries related to formulating and implementing NAPs?**

Key area (please choose all appropriate):

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Accessing financial support                                  | <input checked="" type="checkbox"/> Implementation strategies     |
| <input checked="" type="checkbox"/> Access to and use of technology                              | <input type="checkbox"/> Monitoring, evaluation and learning      |
| <input type="checkbox"/> Institutional arrangements and coordination                             | <input type="checkbox"/> Linkage with the development agenda      |
| <input checked="" type="checkbox"/> Climate scenarios, science, and translation to local context | <input checked="" type="checkbox"/> Active learning from practice |
| <input checked="" type="checkbox"/> Risk and vulnerability assessment and risk management        | <input type="checkbox"/> Other (Please specify) _____             |

*Gap/need identified:* A lack of adequate climate and sectoral data has prevented many countries from effectively designing and implementing NAPs. At the global level, many countries have knowledge gaps about the recent past, current, as well as future state of the climate system and its impacts within specific productive sectors that are particularly sensitive to climate variability and change. This is also reflected at the operational and implementation levels, for example, in the lack of multi-hazard early warning systems (MHEWS) where capacity and financial investments are inconsistent. Needs may include strengthening NMHS's capability to support climate-related planning, policy, and project implementation; and improving data resources and availability relevant to climate-sensitive sectors. Enhancing the climate science information basis underpinning the identification and selection of the investments is, therefore, necessary for adapting to a changing climate in specific areas of focus identified in NDCs, NAPs, and other nationally relevant strategies, plans, and policies. The WMO has initiated a "Checklist for Climate Services Implementation" for NMHSs to self-assess progress with respect to climate services implementation and identify areas where support is needed. The checklist refers to the Country-focused results-based framework for WMO contribution to the GFCS approved by the WMO sixty-eighth session of the Executive Council (Decision 16 – cf. the abridged report pp. 82-92, WMO, 2016). The checklist consists of "YES/NO" self-assessments as to the degree to which actions have been taken or outputs generated. These actions or outputs are grouped into the categories of Governance, Basic Systems, User Interface, Capacity Development, Provision and Application of Climate Services and Monitoring and Evaluation. Actions or outputs are listed within each grouping under the "Basic, Essential, Full, Advanced" headings. Ideally, simultaneous actions will be taken in all categories, moving from left to right, from "Basic" to "Advanced". WMO Members reported that only less than 70% of Members provide climate services to support the design and implementation of NAPs and Nationally Determined Contributions. Once analysed the Checklist data provides a starting baseline that allows having an overview of the overall climate services capacity and identifies areas to improve that NAPs and NDCs would need to cover to ensure adaptation actions are based on climate science basis and address the areas that are lagging behind to develop a such scientific basis. The analyses can be accessed at the WMO Climate Services dashboard: Microsoft Power BI. The Checklist for Climate Services Implementation can be accessed at: [https://etrp.wmo.int/pluginfile.php/25832/mod\\_resource/content/1/Checklist%20for%20Climate%20Services%20Implementation.pdf](https://etrp.wmo.int/pluginfile.php/25832/mod_resource/content/1/Checklist%20for%20Climate%20Services%20Implementation.pdf). The Climate Services dashboard is available at: <https://app.powerbi.com/view?r=eyJrIjojN2RmOGM4YzItOGY1Yi00OGNmLThhNDUtYWU2MmQyNmlyZG91IiwidCI6ImVhYTZiZTU0LTQ0ODctNDJlNC05ODI3LWwNDRiZDh0OGQzYyIsImMiOiI9>.

**In your experience, what have been the key challenges with regard to the provision of capacity-building support in this area to date?**

*Challenge: Capacity development support in the area of climate science information tends to be fragmented and not properly linked to long-term strategies for enhancing hydro-meteorological services and systems. Training is often not effectively reflecting international standards and compliance with globally agreed requirements such as the WMO ISO 9001-based Quality Management System (QMS) procedures. For instance, in many countries, particularly in Africa, observing networks are frequently inadequate and almost 75% have failed to report observations according to WMO requirements. Capacity development has often targeted National Hydro-met Services (NMHSs) in isolation with respect to national sectoral and planning institutions in charge of developing and implementing NAPs. There is a need for a complete overview of the capacities of countries and the portfolio of projects being implemented to identify the areas to be targeted for future capacity building. This overview is often missing.*

*How could this challenge be addressed? Capacity development can be enhanced through a systematic, complementary, and progressive training approach targeting groups of countries on a regional or subregional basis where assistance can also be tailored to address specific country training needs in preparation for the development of climate science information for national policy documents such as NAPs and investment proposals (e.g. NAP Readiness). WMO organizes hands-on regional, subregional, and national workshops addressing complementary training areas to ensure capacity development in the area of climate science information for climate action. The training lays the foundation for a greater degree of competency at the country level, a wider network of available expertise, and a larger number of contributing institutions that can support a broad range of training at different levels. More coordinated interventions from Governments and international partners including technical agencies should be realized to maximize opportunities and synergies. There is a need to ensure that data is collected to be able to define a baseline of capacities and existing projects. In relation to QMS, WMO organised five training workshops for 41 countries on Quality Management Systems (QMS) in climate services in 2021 and 2022. These training events assisted climate experts in the National Meteorological and Hydrological Services (NMHSs) in the implementation of the climate services competencies, thus enhancing the satisfaction of their users through the improvement of services and products of their NMHSs. In that sense, Members are urged to consider the timely implementation of the new provisions aimed at enhancing the quality management practices and procedures, taking into consideration relevant national requirements and normative frameworks. The development and implementation of a QMS within an ISO 9001 quality management framework, will enhance the capacity of the NMHSs to better integrate weather and climate services, generate standardized climate information, establish strong user engagement and be capable of effectively using global and regional inputs in their national context. This achievement will further facilitate the establishment of a National Framework for Climate Services (NFCS) and enhance the provision of information through tools such as the Climpact to serve decision-makers across a wide range of climate-sensitive sectors. In terms of climate service delivery component quality management complement the value chain and user engagement including a) Achieving standardized provision of climate data, monitoring, prediction and service delivery; b) Enhancing the level of capacity of the target NMHS in climate services; c) Determining the interfaces, risks and obstacles in climate services; d) Enhancing the capacity and competency of technical human resources; e) Implementing improved documentation with well-defined processes and procedures; f) Establishing corrective action systems to prevent risks and threats from recurring; g) Enhancing the focus on customer communication; h) Understanding the present and future requirements of customer needs, that are identified, leading to improved customer satisfaction; i) Increasing the efficiency and profile of the National Framework for Climate Services (NFCS); j) Enhancing and broadening the continuity and consistency of climate service activities among WMO Members.*

**How can existing capacity-building efforts be improved and what kind of new or additional capacity-building efforts are needed to ensure the effective formulation and implementation of NAPs?**

*At the subnational level: At the project and/or implementation levels, it is necessary to design appropriate monitoring and evaluation frameworks to improve skills and knowledge related to tracking, Measurement, Reporting, and Verification (MRV), Monitoring, and Evaluation (M&E) of implemented actions.*

*At the national level: Ensuring climate data accessibility by developing countries is a key intervention that supports NAPs implementation and planning. Climate data are considered essential elements of cross-sectoral climate planning, so they should be freely accessible. Capacity development actions that strengthen NMHS interoperability with WMO regional and global centres are particularly critical since the operational exchange of data and products with these centres can significantly enhance the data, information, and services an NMHS can provide at the country level for NAPs. VERONICA: In addition, institutional capacity-building efforts are needed at the national level to ensure all stakeholders are brought together to design the NAPs including MetServices and the sectors. National Frameworks for Climate Services could be a key vehicle for this.*

*At the regional level: NMHSs engaged in NAPs design and implementation should be supported by a network of operational centres run by WMO members. This includes Regional Climate Centres (RCCs), Regional Specialized Meteorological Centres (RSMCs), Regional Training Centres (RTCs), Regional Instrument Centres (RICs), Regional WMO Integrated Global Observing System Centres (RWCs) but also Global Information System Centres (GISCs), who operationally exchange data and products needed for the provision of services for applications related to weather, climate and water including adaptation and Early Warning Services (EWS). The WMO grant under the EU-funded ClimSA Programme offers an example of capacity-building for mainstreaming. WMO, as part of its mandate, will support the enhancement of climate-informed decision-making and mainstreaming of climate services at the regional and national levels. Deliverables include regional training workshops on mainstreaming climate information and services into national and regional policies and programmes; tools for policymakers to support informed decisions; and impact assessment reports, including socio-economic benefits of the produced climate services.*

**Who should be the target recipients of such capacity-building, and who could provide it?**

*Recipients: Parties to the United Nations Framework Convention on Climate Change (UNFCCC), especially LDCs and SIDS; National Meteorological and Hydrological Services (NMHSs); GCF Accredited entities (AEs) (particularly Direct Access Entities (DAEs)), National Designated Authorities (NDAs).*

*Providers: Expert support can be drawn from across the WMO community from the international to the national levels, including the community of NMHSs, Regional Climate Centers (RCCs), Global Producing Centers (GPCs), WMO Technical Commissions, UN Agencies, academia, partner institutions, inter-governmental nominated and confirmed experts on all aspects of weather, water, climate, and sectoral priorities and with experience in climate data and services provision.*

**Case studies, good practices, tools, lessons learned, or examples of support:**

*Please describe any that build capacity to formulate and implement NAPs*

WMO-GCF Climate Science Information for Climate Action:

A series of activities have already taken place in the last quarter of 2022 and are planned for 2023:

A Regional Training Workshop (in person) on Climate Science Information for Climate Action, South Africa, 12–16 September 2022. A total of 31 participants, including WMO staff from the Secretariat and the Regional Office for Africa, participated in the event. The workshop was attended by four countries in the region: Eswatini, Malawi, South Africa and Zambia. In addition, international partner organizations (e.g. GCF, UNFCCC, UNICEF, UNDRR, FAO, GWP) with experience in climate data and services provision and the development of NAPs and GCF-funded activities, as well as scientific institutions such as the Swedish Meteorological and Hydrological Institute (SMHI) – which hosts the Climate Information Platform (CIP) – and the University of New South Wales (UNSW) of Australia, contributed to the delivery of the workshop.

The First Global Forum on Climate Science Information – Data, Tools and Methods – 27-29 September 2022 (hybrid) was organized to discuss the climate information required for adaptation and resilience projects, to evaluate and promote guidance on its use, to identify gaps, and to promote and coordinate authoritative information. The Forum gathered more than 200 international, regional, national and sectoral expert users of climate science information, including NMHSs, the WMO technical community, research/academic and international organizations and information users, decision-makers, development partners, private investors, and non-governmental organizations.

Regional Workshop on Climate Science Information for Climate Action in Jakarta, Indonesia, 19-23 June 2023. The workshop will be attended by five countries in the region: Bangladesh, Indonesia, Laos, Myanmar and Timor Leste. Up to 3 delegates from each country, representing respectively the Nationally Designated Authority (NDA) to GCF, the National Meteorological and Hydrological Service (NMHSs) and a climate-sensitive sector, will be invited to attend the workshop. The aim is to further strengthen the capacity of stakeholders to access, synthesize, and incorporate relevant climate science information into climate action policies, plans and investments – including projects funded by the GCF and other financing sources, National Adaptation Plans (NAPs), Nationally Determined Contributions (NDCs) and other vehicles for climate action.

Two side events at the NAP Expo 2023 "Scaling up Adaptation Actions", Santiago, Chile (27-30 March 2023). WMO will contribute to a side event on "Supporting the implementation of Agriculture NAPs with Earth observations solutions" in partnership with the Group on Earth Observations (GEO) and the Green Climate Fund (GCF) and to a session titled "Towards new guidance to develop and implement coastal adaptation integrating climate science" together with GEO, the Climate Service Center Germany (GERICS), and Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Two online seminars (Webinars) on Climate Science Information for Adaptation and Climpact in Spanish language (April 2023). The subject of the first webinar will be particularly relevant for those working on integrating climate science information into policy processes and documents like National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs). The second webinar will explore how to generate sector-specific climate information relevant to climate-sensitive sectors using an open-source software package called Climpact. Both webinars will showcase the importance of using climate indices for planning in sectors such as disaster risk reduction (DRR), health, agriculture and food security, and water and energy.

Through WMO engagement with the UNFCCC/UN4NAPs partnership, ongoing tailored and specific technical assistance to LDCs or SIDS (e.g. Senegal, Zambia, etc.) is being provided to support the development of National Adaptation Plans (NAPs).

**Useful sources:**

*Please give examples of additional useful sources relevant to this topic  
(e.g. webpages and portals, publications, fora, organizations working on this issue)*

The Climate Science Information for Climate Action resource pack includes detailed technical guidance, case studies and two-online platforms:

Technical Guidance - Developing the Climate Science Basis for Climate Action:  
[https://library.wmo.int/index.php?lvl=notice\\_display&id=21974#.Yg-pO5Yo9PY](https://library.wmo.int/index.php?lvl=notice_display&id=21974#.Yg-pO5Yo9PY)

A Climate Information Platform that provides access to projections of over a dozen climate change indices for the globe, for example, coupled atmospheric and ocean monitoring and regional climate modelling:  
<https://climateinformation.org/>

Online access to Climpact – for calculation of over 70 indices associated with climate impacts, from historical daily temperature and precipitation data: <https://climpact-sci.org/>

The State of the Climate Services Reports have been published since 2019 covering several climate action priority areas as identified in NDCs and NAPs:

[WMO 2019. 2019 State of Climate Services: Agriculture and Food Security](#)

[WMO 2020. State of Climate Services: Risk information and early warning systems](#)

[WMO 2021. 2021 State of Climate Services: Water \(WMO-No. 1278\)](#)

[WMO 2022. 2022 State of Climate Services: Energy report: doc\\_num.php \(wmo.int\)](#)