



Our ref.: 6781782/2026/SSCD/CRI

29 September 2026

Annexes: 2

Subject: WMO Engagement and Events at the Thirty-first Session of the Conference of the Parties to the UNFCCC (COP31)

Action required: Permanent Representatives are invited to liaise with the WMO COP31 Coordination Team at wmo-cop@wmo.int if planning to attend the COP31 in Türkiye **by 10 October 2026**

Dear Sir/Madam,

The thirty-first session of the Conference of the Parties (COP31) to the United Nations Framework Convention on Climate Change (UNFCCC) will take place in **Antalya, Türkiye, from 9 to 20 November 2026**.

COP31 represents an important opportunity to reinforce the role of National Meteorological and Hydrological Services (NMHSs) in supporting evidence-based climate action through robust observations, authoritative science and data, climate services and multi-hazard early warning systems. In line with the COP31 Presidency's implementation-focused vision and the UNFCCC emphasis on translating commitments into practical and measurable results, COP31 will provide an important opportunity to demonstrate how strengthened meteorological, hydrological and climate science capacities can accelerate implementation of climate action.

The outcomes of the sixty-fourth sessions of the UNFCCC Subsidiary Bodies (SB64), held in Bonn in June 2026, highlighted the central role of robust climate observations, systematic monitoring, accessible climate information and strengthened science-services interfaces in enabling effective climate action planning, implementation and monitoring. These elements underpin the implementation of National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs), support the voluntary operationalization of the Global Goal on Adaptation (GGA) indicators for measuring progress towards adaptation outcomes, and provide essential evidence for assessing collective progress under the Paris Agreement through the Global Stocktake (GST). These discussions highlighted the critical contribution of WMO Members and their NMHSs in providing the scientific foundations for climate action from the global to the national level, underscoring their strategic role as national implementation partners.

At COP31, WMO will continue to support Parties by providing authoritative scientific information and coordinating the contribution of the meteorological, hydrological and climate communities.

To: Permanent Representatives of Members with WMO

cc: Hydrological Advisers

Key messages for NMHSs

WMO encourages Permanent Representatives and NMHS experts participating in national delegations to:

- Promote the value of climate science, research and operational climate information services (CIS) for adaptation and mitigation planning, implementation and resilience; and encourage their systematic integration into national planning, investment and climate finance processes;
- Highlight the essential role and the importance of sustained financing of Earth system observations, climate science, monitoring and data exchange in supporting climate action;
- Demonstrate the importance of multi-hazard early warning systems (MHEWS) as a cornerstone of climate resilience;
- Engage with national climate negotiators to ensure that scientific and technical expertise informs discussions on systematic observation, research, and climate action implementation;
- Promote closer collaboration between NMHSs, national climate focal points, finance institutions and development partners to translate climate science into investable adaptation, mitigation and resilience actions;
- Promote investment in NMHS capacities as an enabling condition for achieving the objectives of the Paris Agreement;
- Support the continued recognition of WMO's role, including as a potential custodian agency for the Global Goal Adaptation (GGA) target related to the establishment, availability and use of multi-hazard early warning systems, climate information services and systematic observation (Target 10a of the GGA, adopted at COP30 through Decision [FCCC/PA/CMA/2025/L.25](#)).

A detailed set of key outcomes from SB64 and detailed messages relevant to NMHSs at COP31, is provided in Annexes [1](#) and [2](#) of this letter.

WMO engagements at COP31

In line with its strategic approach to COP31, WMO will focus its engagement on high-impact scientific-oriented events, in collaboration with the COP31 Presidency, United Nations partners and the wider scientific community. WMO will pursue a targeted and strategic engagement approach, prioritizing high-level events, mandated UNFCCC processes, strategic partnerships and coordinated activities across the conference.

COP31 will also provide an important platform for the launch and dissemination of key WMO knowledge products and scientific outputs, showcasing the latest evidence, services and tools to support climate adaptation, resilience and climate action. This engagement contributes to the broader UNFCCC objective of strengthening implementation support for Parties through enhanced scientific cooperation, improved accessibility of climate information, and stronger partnerships across the UN system.

Key WMO products and engagements include:

TITLE	DESCRIPTION	DATE
1. The 2026 State of the Climate Update	WMO is working with the COP31 Presidencies on a high-level launch of the annual State of the Climate Update to provide the latest authoritative assessment of the global climate system. A digital hub, including the reports, interactive visualizations, access to the underlying data and guidance for users is envisioned to be launched in beta version alongside the report.	First week of COP31
2. UN System Side Event on Reading the Climate Signal: El Niño, Extreme Events, and the Science Behind the Headlines	This event will demonstrate how authoritative climate science—from ENSO monitoring and seasonal prediction to early warning systems, humanitarian action and food security—supports timely decisions as a potentially significant El Niño develops. The event is being organized jointly with partners from across the United Nations system, including IOC-UNESCO, FAO, WFP, OCHA, UNDRR, WHO and ITU.	First week of COP31, potentially on 10 November 2026
3. Earth Information Day (EID)	As the mandated scientific dialogue under the UNFCCC, Earth Information Day (EID) will present the latest advances in climate science and systematic observation. EID will also provide an opportunity to highlight the importance of sustained Earth observations, climate research, emerging scientific capabilities and international collaboration in informing the second Global Stocktake (GST2) and future national climate commitments.	First week of COP31
4. WMO Information Note on Global Goal on Adaptation (GGA) Indicators	WMO will launch a technical contribution highlighting the role of climate information services, systematic observations and multi-hazard early warning systems in tracking progress towards the GGA targets, including Target 10(a), and supporting countries in voluntarily implementing the Belém Adaptation Indicators and monitoring progress of adaptation action. The Information Note is intended to support Parties in the ongoing development of metadata and methodologies for monitoring and tracking the Belém Adaptation Indicators.	First or second week of COP31
5. Adaptation Intelligence Briefs	WMO will present a series of science-based briefs providing actionable climate information and insights to support decisionmakers in addressing priority adaptation challenges, including extreme heat and health, ocean and sea-level rise, and water, agriculture and food security.	First or second week of COP31

TITLE	DESCRIPTION	DATE
6. WMO Community Meeting	All Permanent Representatives, Hydrological Advisers and NMHS experts attending COP31 are warmly invited to participate in the WMO Community Meeting, which will provide an opportunity to present key scientific messages, exchange views with NMHS delegates on COP31 priorities, discuss outcomes from Earth Information Day, and strengthen coordination across the WMO community throughout COP31. Further information on the format and venue will be communicated in due course.	First week of COP31
7. WMO participation in the COP31 Action Agenda and UN System initiatives	Building on the Global Climate Action Agenda to accelerate implementation outside the formal negotiations, WMO will support the identification of high-impact, science-based solutions linking technical tools and implementation support. This contribution aligns with the efforts in accelerating practical implementation of climate commitments through partnerships among governments, scientific institutions, the private sector and development partners.	First and second week of COP31
8. Technical Guidance on Costing Adaptation Implementation	A collaborative product with the UNFCCC Least Developed Countries Expert Group (LEG), WMO and the Climate Risk and Early Warning Systems (CREWS) initiative to develop practical guidance for estimating adaptation investment needs for foundational MHEWS and CIS, drawing on country experiences and good practices to support more credible national adaptation planning, financing and implementation processes. This guidance directly responds to the funding gap for adaptation proposals identified by the LEG Work Programme 2026–2027.	First or second week of COP31
9. Additional WMO events, in collaboration with partners, including the COP31 Presidencies (to be confirmed)	WMO, in collaboration with partners, including the COP31 Presidencies, will convene four high-level events as part of the Presidency Programme at COP31 focusing on: (i) early warning systems; (ii) water, agriculture and food security; (iii) extreme heat and health; and (iv) coastal infrastructure and communities in a changing ocean. Further details on these events, including dates, times and venues, will be communicated to Members in due course.	First and second week of COP31

To facilitate coordination during COP31, Permanent Representatives are kindly requested to:

- Inform the WMO COP31 Coordination Team of members of their delegation who will attend COP31 **by 10 October 2026**;
- Indicate whether they or members of their delegation wish to participate in the WMO Community Meeting;
- Inform the WMO COP31 Coordination Team of any pavilion events or other activities where WMO participation may be appropriate.

A consolidated overview of WMO submissions and technical inputs to the UNFCCC in 2026 is available [here](#). These submissions provide consolidated expert views from WMO and its technical community in response to UNFCCC invitations and calls for submissions under relevant processes.

COP31 will mark an important transition from negotiation towards accelerated implementation of the Paris Agreement. In this context, the active participation of NMHSs within national delegations is increasingly important to ensure that climate actions and investments are informed by authoritative scientific evidence, sustained Earth observations, operational climate services and effective multi-hazard early warning systems. WMO therefore strongly encourages Permanent Representatives to facilitate close coordination between NMHS experts and national climate negotiators throughout the conference.

Additional information on WMO activities, meeting arrangements and logistical details will be made available on the dedicated COP31 page of the [WMO website](#) and shared closer to COP31.

Should you require further information or communicate your participation, please contact the WMO COP31 Coordination Team at wmo-cop@wmo.int.

During my visit to Antalya, I would be pleased to meet with you and your delegation. Should you wish to arrange a bilateral meeting or receive further information about WMO's engagements during COP31, please contact the Office of the Secretary-General of WMO at SGOMM@wmo.int.

I look forward to meeting you and your delegation during COP31.

Yours faithfully,



Prof. Celeste Saulo
Secretary-General

Key SB64 (June 2026) outcomes relevant to NMHSs

- **Global Goal on Adaptation (GGA) and Baku Adaptation Roadmap (BAR):** Parties remained divided on the taskforce for adaptation indicators, metadata and methodologies, and on references to adaptation finance (including the call to triple adaptation finance by 2035). All substantive issues were left for resumption at SB65/COP31.
 - **Research and Systematic Observation (RSO):** The RSO discussions were highly relevant to WMO priorities on climate science, observations, and climate information services. Parties debated references to El Niño, overshoot pathways, tipping points, carbon dioxide removal, regional climate downscaling, national climate scenarios, and improved understanding of vulnerable systems such as glaciers and the cryosphere, although significant differences remained over how scientific findings should be reflected in UNFCCC decisions. Several Parties also highlighted financial concerns affecting the Global Climate Observing System (GCOS), underlining the importance of sustained scientific and observational capacity. Delegates further stressed the role of science in supporting resilient energy systems, adaptation planning, and evidence-based decision-making. Discussions reflected a growing demand for actionable climate information, enhanced Earth system observations, and strengthened science-policy interfaces. An informal summary of the 18th Research Dialogue will be produced ahead of SBSTA 66 (Draft conclusions – <https://docs.unfccc.int/documents/10000226>).
 - **Matters related to Least Developed Countries (LDCs) and National Adaptation Plans (NAPs):** Negotiations focused on both the review of the LDC Expert Group (LEG) and strengthening implementation of NAPs. The LDC Group proposed establishing a NAP implementation alliance to help develop adaptation investment pipelines, provide readiness support for implementation, and improve access to existing financing mechanisms. From a WMO perspective, discussions highlighted increasing demand for climate observations, risk assessments, climate services and early warning information to support evidence-based adaptation planning in vulnerable countries. The emphasis on strengthening technical support, operational climate information and long-term observational capacity reinforce the importance of WMO contributions to national adaptation planning.
 - **Nairobi Work Programme (NWP):** SB64 reaffirmed the NWP as the UNFCCC's key platform for addressing adaptation knowledge gaps and strengthening technical cooperation. Parties agreed that future activities should be driven by country needs, promote regionally balanced implementation, expand collaboration with universities—particularly in developing countries—and strengthen partnerships to enhance adaptation knowledge and implementation. These outcomes reinforce WMO's role in advancing climate science, knowledge exchange, and technical support for adaptation.
 - **Global Stocktake (GST):** GST2 preparations are placing strong emphasis on robust observational datasets, climate monitoring continuity, and operational climate services areas where WMO infrastructure and technical expertise are directly relevant. Parties called for integrating IPCC AR7 findings alongside real-world implementation data, but repeatedly stressed that scientific credibility depends on sustained, high-quality observations, improved data-sharing frameworks, and user-ready climate information. Adaptation metrics, loss and damage assessments, and means of implementation were flagged as priority areas requiring better analytical inputs.
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Key messages for NMHSs relevant to COP31

1. Research and Systematic Earth Observations

Key message: *A sustainable research and global observing system is indispensable for climate action, adaptation and mitigation planning, monitoring and implementation.*

- SB64 continued to recognize the importance of research and systematic observation for climate understanding and decision-making. Parties noted with concern the emerging threats to the continuity of climate research and observations, and the WMO, WCRP, and GCOS statements delivered to the SBSTA64 plenary were widely referenced by negotiators working on the RSO conclusions.
- NMHSs serve as central actors in maintaining surface observation networks, climate monitoring systems, data rescue and homogenization efforts, and the integration of satellite and in situ observations.
- Addressing observation gaps requires sustained investment, particularly in vulnerable regions and developing countries. Several Parties at SB64 highlighted financial constraints affecting the Global Climate Observing System (GCOS). Limited public resources and competing priorities often make it difficult for developing countries to sustain observation systems, despite their benefits being global and shared.
- Conventional climate finance has struggled to address this structural gap. Funding is often designed around time-bound projects, while systematic observations require continuous, long-term financing and technical support for operations, maintenance and data exchange.
- The Systematic Observations Financing Facility (SOFF) is the multilateral financing facility dedicated to strengthening the Global Basic Observing Network (GBON). Since becoming operational in 2022, SOFF has received requests for support from more than 100 countries and has established the institutional, technical and governance foundations required to deliver at scale. While SOFF is already providing initial support to 64 countries, an estimated USD 350 million investment gap remains for Least Developed Countries and Small Island Developing States to achieve GBON compliance.
- Building on its proven operational model, SOFF is now establishing a Financing Platform, an innovative financing vehicle designed to mobilise complementary public, philanthropic and private capital for systematic weather and climate observations. The Platform will use catalytic grant contributions to unlock larger and more predictable volumes of long-term financing, beginning with the inaugural Systematic Observation Impact Bond, announced under the COP30 Action Agenda in Brazil.

2. Global Goal on Adaptation (GGA)

Key message: *The implementation of the GGA indicators creates an opportunity for NMHSs to demonstrate the essential contribution of multi-hazard early warning systems (MHEWS), climate information services (CIS), and systematic observations to adaptation progress and implementation.*

- Following the adoption of the Belém Adaptation Indicators in 2025, MHEWS, climate information services, and systematic observations are explicitly recognized as measurable elements of adaptation progress.

- NMHSs have a key role in supporting countries to report adaptation progress by ensuring the availability and accessibility of climate information, the delivery of operational climate services, the strengthening of observation networks and data systems, and the monitoring of early warning coverage and effectiveness.
- At SB64, Parties remained divided over the composition of the technical taskforce mandated to refine these indicators; an initial proposal identified WMO as a potential custodian agency for Target 10(a) on MHEWS, CIS, and systematic observations, and this matter will resume at SB65/COP31.

3. National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs)

Key message: *NMHSs must be engaged upstream in NAP and NDC processes, not only as data providers, but as strategic partners shaping climate action priorities and implementation.*

- SB64 discussions reinforced the need for stronger integration of science into climate action, namely mitigation and adaptation planning.
- At SB64, the SBI noted with concern that several technically cleared adaptation proposals will remain unfunded owing to a lack of resources. WMO and CREWS are developing, in collaboration with the UNFCCC Least Developed Countries Expert Group (LEG), technical guidance on costing adaptation implementation for MHEWS and CIS to help address this gap.
- NMHSs are encouraged to support the implementation of NAPs and NDCs by ensuring that climate risks are assessed using robust observations and climate projections, that climate information and services are tailored to sectoral adaptation needs, that guidance is provided on the response in atmospheric greenhouse gases to mitigation actions, and that monitoring frameworks incorporate relevant climate-related indicators.
- Support the transition from adaptation priorities to finance-ready investments. As countries translate NAP priorities into investment programmes and project pipelines, NMHSs are encouraged to help define and cost the climate information, observation, hydrological and early warning components required, including infrastructure, data systems, services, institutional arrangements and capacity. Early engagement is critical to ensure these technical requirements are reflected in project concepts, financing proposals and implementation arrangements, rather than being addressed only after financing has been secured.
- Achieving these objectives requires stronger collaboration between NMHSs, national NDC planning and adaptation authorities, finance ministries and development partners to ensure that climate science and services effectively inform planning, investment and progress tracking.
- The Climate Implementation Bridge (CIB), being developed under the COP31 Action Agenda with the Government of Türkiye and UNDP, aims to help countries translate NDCs, NAPs and development priorities into investable projects and connect them with appropriate finance and delivery partners. NMHSs should position themselves as technical partners in this process by: (i) providing climate risk, observation and projection information to identify and prioritise investments; (ii) defining the climate information, MHEWS and observation requirements of priority investments; and (iii) contributing to project design and investment cases to ensure that climate science and services are embedded from the outset. This requires early engagement with NDC and adaptation authorities, Ministries of Finance and development partners.

4. Early Warnings for All (EW4All)

Key message: *EW4All implementation requires NMHSs, working with partners, to lead the transformation from forecasting hazards to delivering people-centred early warning services.*

- The initiative continues to focus on ensuring that all people are protected by effective early warning systems by 2027, with WMO leading the pillar on detection, observation, monitoring, analysis and forecasting. The future of the initiative past 2027 is under discussion, but one thing we know for sure is that we will keep working on building better early warning systems together. Last year, WMO Congress agreed a major strengthening of our standards on early warning systems. Countries are asked to ensure that warnings are produced for natural hazards and communicated to community level, to record events and impacts and continue to improve systems. NMHSs are essential in this process for strengthening forecasting capabilities, providing authoritative and timely early warnings, integrating impact-based forecasting and warning services, and fostering collaboration with disaster management agencies and communities to enhance preparedness and resilience. By working in partnership in early warnings, we can save lives and keep communities strong.
- It is recommended that future investments focus not only on technology but also on sustainable institutional capacity, service delivery and user engagement.

5. Global Stocktake (GST)

Key message: *The next GST will depend on stronger scientific evidence, including improved climate observations, attribution science and assessments of climate impacts and Earth system changes.*

- SB64 highlighted the continued importance of research, systematic observation and scientific information under the UNFCCC process. Parties confirmed that GST2 preparations should place strong emphasis on robust observational datasets, monitoring continuity and operational climate services.
- NMHSs are key contributors to maintaining long-term climate records, monitoring climate extremes and trends, improving the attribution of extreme events, and providing national evidence on climate impacts and adaptation outcomes to support climate action and decision-making.
- Atmospheric observations provide an important technical evidence base for GST2. WMO's initiatives (see Section 6 below) combine observations with analysis and modelling to provide independent information on greenhouse gas concentrations, emissions and removals, complementing national inventories and supporting assessment of changes in the global carbon cycle.
- Preparing for GST2 requires strengthening national data systems and ensuring climate observations are accessible, quality-controlled, and interoperable. It is recommended that NMHSs engage early in national GST2 preparations to identify relevant observational datasets, strengthen data quality and continuity, and support their integration into national and global assessments.

6. Greenhouse gas (GHG) observations strengthen transparency and climate action

Key message: *NMHSs play a critical role in strengthening climate transparency by supporting high-quality atmospheric observations and providing essential evidence for national emissions monitoring.*

- WMO's Global Atmosphere Watch (GAW) and its Integrated Global Greenhouse Gas Information System (IG3IS) and Global Greenhouse Gas Watch (G3W) initiatives demonstrate how atmospheric observations can provide independent scientific information on greenhouse gas concentrations, emissions and removals.
- WMO develops guidelines on the use of atmospheric observations in combination with the analysis tools to support independent quantification of emissions and removals at the decision relevant scales (from national to urban and facility scale). Several countries demonstrated the utility of this information for national reporting.
- High-quality GHG observations support the GST by improving understanding of changes in the global carbon cycle, complement national inventories with independent scientific evidence under the Enhanced Transparency Framework (ETF), and enable improved national planning and monitoring of mitigation commitments.

7. Climate Finance - Climate information is a foundation for finance-ready investments

Key message: *NMHSs play an essential role in enabling access to and the effective use of climate finance by providing the authoritative climate, hydrological and weather information needed to identify investment priorities, strengthen project proposals and support resilient development.*

- Strengthen the climate science basis of investments. NMHSs can provide the observations, climate information, risk assessments and projections needed to identify climate risks, prioritize adaptation and mitigation investments, and strengthen the technical credibility and finance-readiness of project proposals.
- Providing evidence on the costs and benefits of systematic observation, climate services and early warning systems can help countries develop stronger investment cases and demonstrate the contribution of hydrometeorological and climate information systems to wider adaptation and development outcomes.
- Engage early in national climate finance processes. NMHSs are encouraged to work closely with ministries of finance, planning and environment, development partners and accredited entities to ensure that climate information and risk assessments are integrated into NAPs, NDCs, investment plans and climate finance proposals.
- Highlight investment in climate information and early warning systems as an investment in resilience. Sustained financing for observations, climate information services, hydrological services and multi-hazard early warning systems—including the institutional and human capacities needed to operate them—is essential to reduce climate risks and protect investments across sectors.
- Promote sustained and predictable financing for climate information infrastructure. NMHSs can highlight the importance of long-term investment in national and global observing systems, data exchange and information services as essential public infrastructure that reduces uncertainty, supports investor confidence and enables effective climate action.
- As countries move from adaptation planning towards implementation, there is an increasing need to translate identified adaptation priorities into concrete investment requirements. NMHSs can play a central role in defining the technical components, capacities, infrastructure and enabling systems required to deliver and sustain climate information services and multi-hazard early warning systems.

8. Cross-cutting message for NMHSs

Key message: *NMHSs are essential national institutions for translating climate science into climate action, enabling countries to implement, monitor and strengthen the Paris Agreement.*

- SB64 reaffirmed that robust observations, climate science, research, climate information services and multi-hazard early warning systems are fundamental to effective implementation of the Paris Agreement. NMHSs are not only providers of weather and climate information—they are strategic national institutions that support climate action planning, adaptation, resilience, transparency and evidence-based decision-making.
 - Support sustained investment in Earth system observations, including GCOS, and national climate monitoring systems.
 - Engage proactively in national climate action processes, including NAP implementation, GGA operationalization, NDC implementation and preparations for GST2.
 - Strengthen climate data management, quality assurance and interoperability to support adaptation monitoring and implementation.
 - Scale up user-oriented climate services that respond to national and sectoral priorities.
 - Accelerate the implementation of people-centred multi-hazard early warning systems under the EW4All initiative.
 - Strengthen partnerships with governments, research institutions, UN organizations and financing partners to mobilize technical and financial support.
-