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## RESOURCE MOBILIZATION

## WMO RESOURCE MOBILIZATION STRATEGY AND MEMBER SUPPORT THROUGH FLAGSHIP INITIATIVES (EW4ALL, GBON/SOFF AND G3W), THE VOLUNTARY COOPERATION PROGRAMME (VCP) AND PROJECTS FUNDED BY VOLUNTARY CONTRIBUTIONS

### Introduction

Resource mobilization is critical for modernizing and strengthening the operational capacities, services, and sustainability of National Meteorological and Hydrological Services (NMHSs) worldwide. This necessity is also present in RA VI, which includes a diverse group of WMO Members at varying stages of development. The need to scale up resource mobilization is driven by the rapidly increasing demand for weather, climate, and water services and the corresponding ambition to close the capacity gap (Strategic Objective 4, WMO Strategic Plan 2024–2027). At the same time, opportunities for scaled-up resource mobilization are increasing, given growing political momentum to improve the volume and access to concessional climate and development finance to strengthen climate risk management, adaptation, and mitigation.

Extrabudgetary resources, termed “voluntary contributions” in WMO, are made available by development partners, multilateral climate funds, research organizations, foundations, commercial entities, and others. The contributions, including project grants, are provided to WMO and its partners and Members to deliver development projects, technical assistance, capacity building and thematic programmes. The support is not only financial, but also consists of provision of expertise, secondment of specialists, and other forms of in-kind support.

This document summarizes the WMO strategy on resource mobilization and highlights the pivotal role NMHSs can play in driving the mobilization of climate and development finance. Furthermore, it outlines specific mechanisms supporting Members including WMO flagship initiatives—Early Warnings for All (EW4All), the Global Basic Observing Network and associated Systematic Observations Financing Facility (GBON/SOFF), and the Global Greenhouse Gas Watch (G3W)—along with the Voluntary Cooperation Programme (VCP) and other extrabudgetary projects funders.

### WMO Resource Mobilization Strategy Overview[[1]](#footnote-2)

The Nineteenth World Meteorological Congress (Cg-19) approved the Strategic Plan 2024–2027, which sets the top strategic priorities to guide WMO through the next four years during rapid climate, societal and technological change. The Strategic Plan sets five long-term goals to promote WMO vision that “by 2030, we see a world where all nations, especially the most vulnerable, are more resilient to the socioeconomic consequences of extreme weather, climate, water and other environmental events”.

To help achieve this vision, resource mobilization will be pursued across three spheres of engagement, all in support of WMO Members:

1. Secretariat extrabudgetary projects and activities, including technical assistance, capacity development, development projects, research-innovation-based activities, and augmentation of WMO global programmes requiring resources beyond the regular budget;
2. WMO flagship initiatives, namely EW4All, G3W, and GBON, for which most of the investment and implementation will be delivered outside the WMO Secretariat;
3. Broader support to Members, including supporting development partners to deliver technically appropriate needs-based investments and assisting Members to mobilize resources directly.

Many initiatives and projects are active across more than one of these spheres, strengthening efficiencies and scaling up impact. Three resource mobilization objectives of:

1. Promoting global public good and research advances;
2. Whole-of-institution support to Members;
3. Leveraging for impact cut across the three spheres of WMO resource mobilization engagement, as shown in Figure 1.

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**Figure 1. Spheres and cross-cutting objectives of WMO Resource mobilization. All spheres and objectives overlap and reinforce each other.**

Informed by this context and to expedite achieving the long-term goals and objectives, the WMO Secretariat will prioritize and pursue resource mobilization activities according to the below set of institution-wide principles.

Principles of WMO Resource Mobilization

1. Align resource mobilization with the priorities of the WMO Strategic Plan and Cg-19, aiming to ensure all the Organization’s projects and activities, flagship initiatives (EW4All, G3W and GBON) and broader support to Members are sufficiently resourced;
2. Promote national and regional ownership and commitment by addressing the priority needs of Members through scaled-up support, ensuring that projects and contributions are implemented as close as possible to Members;
3. Prioritize initiatives supporting wide regions over very local interventions;
4. Effectively engage with and support WMO Regional Offices, Regional Associations and Members to mobilize resources;
5. Align and coordinate resource mobilization activities through clear and effective relationships with partners, leveraging partner development/climate investments and avoiding duplication;
6. Be recognized as a reliable, transparent, and accountable partner that pursues sustainable solutions and impacts;
7. Encourage Members to participate in WMO projects through twinning and financial support to improve design, implementation, and sustainability;
8. Recognize the role of human resources as a fundamental pillar of capacity development with a major role in strategic planning, quality of services, and sustainability of NMHSs.

### Empowering NMHSs in Mobilizing Climate and Development Finance

Climate data and information are critical to climate change decision-making processes and to the identification and design of climate investments, therefore serving as key enablers for mobilizing climate and development finance. NMHSs’ data, knowledge and expertise are therefore essential for informing climate-related national strategies, processes, and investments and hence, must be acknowledged and empowered to effectively fulfil this pivotal role.

To support this position, *a Guidance Note on Enhancing the Role of NMHS in Mobilizing Climate Finance at the National Level* is being developed with the objectives to:

1. Provide comprehensive insights into climate finance stakeholders and processes typically undertaken at the national level;
2. Illuminate the guiding principles of climate finance decision-making and underscore the pivotal role of NMHSs as key drivers in the mobilization process;
3. Identify opportunities for collaboration with funding agencies and national stakeholders to propose projects aimed at strengthening NMHS infrastructure, thereby enhancing the design and utilization of climate information services;
4. Outline strategies for empowering NMHSs through deliberate initiatives focused on vision setting, strategy development, and enhancing their perceived agency to mobilize resources both for the country's climate ambitions and for the NMHSs themselves.

### Funding Resources for RA VI

Some eligible RA VI countries have access to financing from international financial institutions (IFIs) such as the European Investment Bank (EIB), World Bank Group, European Bank for Reconstruction and Development (EBRD), Islamic Development Bank and the Council of Europe Development Bank (CEB), some of which also provide knowledge and advisory services. Additionally, several RA VI countries are eligible for international climate finance mechanisms, such as the Green Climate Fund (GCF), and can access concessional financing (grants and low – or zero – interest loans, typically called credits) from multilateral and bilateral development banks and institutions. RA VI countries are strongly encouraged to fully utilize these financial and technical resources offered by the IFIs and climate finance mechanisms to enhance their NMHS infrastructure, build capacity, and improve service delivery, including Multi-Hazard Early Warning System (MHEWS) and climate services.

Some Members in RA VI benefit from official development assistance (ODA) from bilateral donors, in particular but not limited to members of the [Organisation for Economic Co-operation and Development's Development Assistance Committee (OECD DAC)](https://www.oecd.org/en/about/committees/development-assistance-committee.html). Significantly driven by the geopolitical situation, much of the current bilateral support in RA VI is focused on security, both physical and in terms of energy supply. NMHSs can be considered critical to human and economic security, and there remains interest of several donors in environmental, water and disaster risk management, so there are opportunities to mobilize bilateral donor support.

The EU is by far the largest contributor to most RA VI Members, delivered through the different Directors General (DGs) of the European Commission (EC). The primary funding DGs are different for EU Member States versus non-Member States, with the primary sources for non-Member States being the DG for Neighbourhood and Enlargement Negotiations (DG NEAR), the DG for International Partnerships (INTPA) and the DG for Research and Innovation (DG RTD). Under DG RTD, most of the grants of the EU Research framework programme (Horizon Europe) are accessible to entities located in non-EU countries which either have a specific association agreement or are listed as “low-to middle-income countries”.

Several more technical DGs are critical to mobilizing EU support to non-Member States, including European Civil Protection and Humanitarian Aid Operations (DG ECHO), DG for Climate Action (DG CLIMA), and those DGs dealing with environment, energy, agriculture, and other sectors benefitting from NMHS services. The WMO Secretariat is currently most successful in mobilizing resources from the EU’s applied research funding, namely the Horizon Europe framework programme under DG RTD. In addition, WMO engages with and receives support from DGs supporting digital, technological and communication advances such as the DG for Defence Industry and Space (DG DEFIS) and the DG for Communications Networks, Content and Technology (DG CONNECT).

### Strengthening [Early Warnings](https://www.un.org/en/climatechange/early-warnings-for-all) Systems under EW4All

EW4All was initiated in 2022 by the United Nations Secretary-General to ensure universal protection from hazardous hydrometeorological, climatological and related environmental events through life-saving Early Warning Systems (EWS) by the end of 2027. Under EW4All, the actions required to achieve this goal have been broken down into four pillars aligned with the four components of MHEWS led by specialized institutions:

1. Disaster risk knowledge, led by the United Nations Office for Disaster Risk Reduction (UNDRR);
2. Observations and forecasting, led by WMO;
3. Dissemination and communication, led by the International Telecommunication Union (ITU);
4. Preparedness to response, led by the International Federation of Red Cross and Red Crescent Societies (IFRC).

The initiative promotes collaboration and synergies across all partners working on a MHEWS implementation.

To realize this vision, EW4All has devised a strategic rollout plan consisting of two pivotal phases: the catalytic phase and the sustained action phase. During the catalytic phase, countries identify gaps and mobilize stakeholders to accelerate universal MHEWS coverage through national EW4All roadmaps. This is followed by the sustained action phase, which focuses on collectively implementing roadmaps and enhancing MHEWS capabilities. Facilitating this process is the interpillar technical coordination group, UNDRR, WMO, ITU, and IFRC, which has developed toolkits and guidance to orient national roll out across countries including an interactive dashboard to enhance transparency and accessibility of information related to EWS. This dynamic tool allows stakeholders to track progress, funding allocations, and key performance indicators, fostering a collaborative and data-driven approach towards achieving global MHEWS goals.

On the global level, thanks to national leadership and pillar partner support, to date, 29 countries have held their national EW4All showing their commitment to fulfil the goal of universal MHEWS coverage by 2027. This has yielded eight national roadmaps, which countries and their partners are using for scaled-up and coordinated action across the four pillars, including also cross-pillar elements.

Continued support for the initial 30 countries designated by the United Nations Secretary-General is paramount to ensuring the successful implementation of EW4All initiatives. These countries have already made significant progress in finalizing their national roadmaps and mobilizing resources for the deployment of MHEWS. Sustaining this momentum and providing ongoing assistance will be crucial as they work towards achieving universal coverage.

Simultaneously, efforts in 2024 focused on expanding the initiative beyond the initial 30 countries based on the demand raised from other countries. Recognizing the urgent need for comprehensive EWS worldwide, EW4All is actively engaging with additional countries that express interest in participating. Once again, a unique range of partnerships will enable this scale up.

To set the foundation for work in across RA VI countries, WMO has worked with NMHSs on national rapid assessments for pillar two. The purpose is to inform the planning stage of the EW4All initiative through baseline data and analysis. It is also intended to identify the areas with the biggest capacity gaps so that technical assistance and investments could be better targeted.

WMO prepared EW4All rapid assessments for Albania, Armenia, Georgia, Bosnia and Herzegovina, Republic of Moldova, Montenegro, North Macedonia, Jordan, Serbia, Syrian Arab Republic, and Ukraine to assess the national capacities under pillar two. Most of these countries have significant gaps in observing, data processing and forecasting systems, lack of formal links between the stakeholders in the dissemination chain and are missing regulatory frameworks that connect early warnings to emergency plans.

Another notable activity to set the foundation for more EW4All implementation in the RA VI region includes the WMO and UNDRR collaboration with EC DG NEAR to support the development of the South-East European Multi-Hazard Early Warning Advisory System, which aims to improve forecasting and warning provisions related to meteorological and hydrological hazards across 18 countries of South-East Europe. In April 2024, a subregional EW4All event was organized in Athens, Greece with representatives of the NMHSs of these countries to plan the next steps in developing the regional early warning advisory system.

In August 2024, the European Centre for Medium-Range Weather Forecasts (ECMWF) announced an important boost to EW4All implementation, of relevance to WMO RA VI countries and NMHSs. As part of its ongoing open data strategy, ECMWF confirmed that all WMO Members would be able to access its ecCharts and Web Map Service (WMS) layers products for their internal forecasting requirements. Separately, the quality and accessibility of ECMWF data will be improved for all WMO Members, first focusing on less developed nations within WMO RA VI, as well as the countries supported by SOFF (see below).

When combined with capacity development training, it is likely that this improved access to global and regional products and ultimately improved forecasting, and other services, might reduce the need for individual WMO Members and NMHSs to mobilize external funding resources to improve service delivery.

### Closing GBON Observation Gaps with SOFF

SOFF is a United Nations specialized fund co-created by WMO, the United Nations Development Programme (UNDP) and United Nations Environment Programme (UNEP) to close the climate and weather observations data gap in countries with the most severe shortfalls in observations, prioritizing Least Developed Countries (LDCs) and Small Island Developing States (SIDS). SOFF provides long-term financial and technical assistance to support the acquisition and international sharing of basic weather and climate observations, according to the internationally agreed GBON regulations. The SOFF support is provided in three phases:

1. Readiness phase: support to enable countries to assess their national hydromet status, define the GBON gap and develop a plan to close the gap;
2. Investment phase: grant finance for infrastructure and human capacity development to enable countries to achieve GBON compliance;
3. Compliance phase: operations and maintenance support to sustain GBON compliance and to access improved weather forecast and climate analysis products.

To date, 66 countries are programmed for SOFF support. Of those 66 countries, the SOFF Steering Committee has approved funding for the Readiness phase in 60 countries and investment phase funding for 13 countries, with an additional five countries conditionally approved. Currently, SOFF is not authorized to provide support to middle-income countries (MICs); however, 13 RA VI countries serve as Peer Advisors, providing technical advice and analytical support to beneficiary countries and implementing entities in designing and implementing activities.

### Improving Greenhouse Gases (GHG) Monitoring through G3W

G3W aims to establish internationally coordinated monitoring and modelling of greenhouse gas concentrations and fluxes to provide actionable information to the United Nations Framework Convention on Climate Change (UNFCCC) Parties and other stakeholders.

The G3W aims to establish a coordinated global observation network to accurately measure Greenhouse Gases (GHGs), focusing on the top three gases responsible for global warming and the associated impacts that manifest in extreme weather. Integration of space- and surface-based observations and modelling (also utilizing artificial intelligence) under the G3W will allow to produce consolidated and continuous global information on the total fluxes and concentrations of GHGs. The resultant data and guidance will allow for better real-time understanding of GHG emissions and sinks, as well as predictions of climate tendencies, which is critical for international governance under the UNFCCC and for countries to plan and implement climate change mitigation activities under their Nationally Determined Contributions (NDCs).

Initial resources for G3W will address technical, coordination, monitoring, and communications leadership needs, including contributions from non-WMO entities, ensuring that climate action and development support are robustly built on science and services that meet the needs of WMO Members.

### Overview of RA VI Projects and Activities

WMO currently implements a portfolio of 47 extrabudgetary funded projects and activities amounting to a total of CHF 130 million. In RA VI, WMO currently implements four EU-funded projects amounting to CHF 2 600 000 of investment in weather, water, and climate services in direct support of WMO Members. WMO further implements activities amounting to approx. CHF 900 000 in the region through a global project funded by the USAID Bureau for Humanitarian Assistance (BHA), with the goal to strengthen multi-hazard Hydrometeorological Early Warning and Capacity Building across the globe (reviewed in more detail later in this document). WMO is currently working on the development of two additional projects, potentially amounting to approx. CHF 25 million, to support the region.

While one of the main sources of funding for Secretariat projects, the Climate Risk and Early Warning System (CREWS), cannot invest in MICs thereby limiting opportunities in RA VI, others such as the Adaptation Fund (AF) can, and WMO does have a project for RA VI in the AF pipeline. WMO is also engaging with multilateral development banks such as the World Bank to influence their priorities and operations in RA VI, for example through upstream recognition of the criticality of NMHS services for climate adaptation and development (example: [WeBa CCDR](https://www.worldbank.org/en/region/eca/publication/western-balkans-6-ccdr)).

Since December 2020, WMO has a working arrangement with the EC which also covers supporting the implementation of the European Green Deal through research and innovation activities and relevant Horizon Europe Missions such as Mission Starfish 2030 and A Climate Resilient Europe 24. Upstream engagement to help guide funding calls towards WMO priorities has been successfully achieved through regular meetings organized by the EU Affairs Office between the WMO Science and Innovation department and EC RTD and will continue to be pursued across EC DGs.

WMO is actively participating in several research-oriented EU Horizon Europe-funded projects, focusing on delivering products, services, and enhanced national policies aligned with the implementation of the EW4All initiative, particularly within RA VI, a region comprising diverse WMO Members at different stages of development.

### MedEWSa Project

The Mediterranean and pan-European forecast and EWS against natural hazards (MedEWSa) is a 3–4-year project running in parallel with the EW4All initiative from 2024 to 2027. MedEWSa focuses explicitly on EW4All and includes NMHSs from countries such as Egypt, Austria, Slovakia, Georgia, and Italy. The project aims to develop a comprehensive pan-European–Mediterranean–African solution, integrating impact-based MHEWS. It operates through eight paired pilot sites, linking regions with similar hazards but different climatic conditions to foster knowledge transfer and capacity building.

### CROSSEU and CARMINE Projects

Both, the Cross-sectoral Framework for Socioeconomic Resilience to Climate Change and Extreme Events in Europe (CROSSEU) and the Climate Resilient Development Pathways in Metropolitan Regions of Europe (CARMINE) are focused on enhancing resilience to climate change and extreme weather events across Europe. These projects aim to develop decision support systems and digital twins to support policy responses and adaptation strategies. CROSSEU addresses socioeconomic resilience, delivering a climate-sensitive framework and decision support system for Europe. CARMINE focuses specifically on urban resilience, providing impact-based decision support and multilevel climate governance.

### FOCI Project

The non-CO2 forcers and their Climate, Weather, Air Quality, and Health Impacts (FOCI) project aims to reduce scientific uncertainties regarding non-CO2 radiative forcers. Funded by the EU Horizon programme, this global-scale project is testing regional climate models over Europe before expanding to Latin America and Africa. Running from 2022 to 2026, FOCI enhance our understanding of non-CO2 forcers' impacts on climate and weather.

### Climateurope2 Project

Climateurope2, an EU-funded project running from 2022 to 2027, focuses on standardizing climate services across Europe and beyond. The project aims to enhance the quality and adoption of climate services by developing guidelines, certification criteria, and good practices aligned with the findability, accessibility, interoperability, and reusability (FAIR) principles. WMO contributions include establishing data verification procedures, quality management methodologies, and assessing the current landscape of climate services.

### USAID Multi-hazard Hydrometeorological Early Warning and Capacity Building

The "Multi-hazard Hydrometeorological Early Warning and Capacity Building” initiative is funded through USAID/BHA with USD 25 million. The goal of this initiative is to collaborate on advancing hydrometeorological end-to-end EWS and capacity to enable countries to take early action and reduce the risk of climate, weather and water related hazards such as floods and flash floods, cyclones, severe weather, storm surges, extreme temperatures, droughts climate variability and change and other hydrometeorological disasters. It will help countries to reduce impact of weather, climate and water related hazards through advancing EWS, developing tools, guidance, and plans, forecasting events and impact, building capacity and other actions to enable people them to access early warning of these events to take early action which is a mutual interest by WMO and USAID/BHA. The initiative has two major areas of intervention: MHEWSs and Advancing Flood Risk Reduction. The initiative has global coverage, and hence will have interventions in RA VI.

### Voluntary Cooperation Programme (VCP)

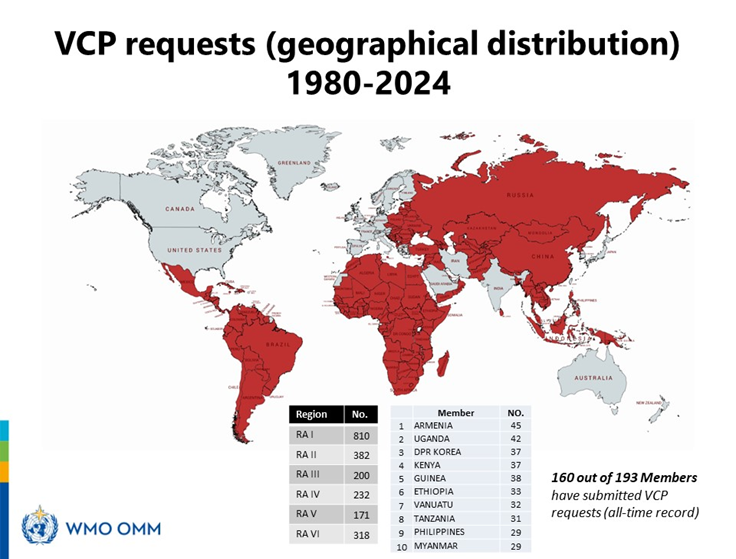
WMO also encourages and facilitates support and collaboration between NMHSs through the VCP, which focuses on meeting urgent needs of Members through direct financing, small grants and transfer of expertise and technology between Members. Since its inception, the programme has successfully provided significant support, including to RA VI Members. Its success is largely due to WMO Members' willingness to share scientific knowledge and the latest technological advances. While donor countries provide equipment, fellowships, expertise and financing, recipient countries ensure their effective use by providing considerable counterpart contributions from national resources, such as local infrastructure, staffing and operational costs. WMO is striving to expand the VCP by creating more linkages among NMHSs, bringing more Members into the programme, and therefore strengthening the spirit of cooperation and friendship.

In RA VI, there are currently three active projects:

| *Members* | *Year* | *Project* | *Remarks* |
| --- | --- | --- | --- |
| North Macedonia | 2018 | Purchasing of hardware for meteorological communication and application package (METCAP) Plus visualization software and hardware, and installation of NMM-B and NMM-E non hydrostatic models | Ongoing |
| Republic of Moldova | 2022 | Assistance to strengthen disaster prevention capacity on the transboundary Nistru River in relation to the war in Ukraine | Finalized |
| Armenia | 2024 | Structural changes in the Armhydromet | Ongoing |

RA VI investments in VCP related projects:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Investing Members* | *Beneficiary* | *Year* | *Project* | *Remarks* |
| Finland | Ukraine | 2023 | Modernization of Ukrainian weather services | Ongoing |
| Switzerland | Albania | 2023 | *ALBAdapt – Climate Services for a Resilient Albania* | Ongoing |
| Sweden | 17 African countries | 2015–2023 | International Training Programme on Climate Change Mitigation & Adaptation | Ongoing |
| Zimbabwe | 2022–2025 | Climate Adaptation for Rural Livelihoods in Zimbabwe | Ongoing |
| United Kingdom | Seychelles | 2024 | Support for the GCOS Upper-Air Network (GUAN) station in the Seychelles | Ongoing |
| Dominica | 2023 | Updated studio equipment and training to the Met. Service in Dominica | Ongoing |



**Figure 2. VCP requests (geographical distribution) 1980–2024**

### Conclusion

In conclusion, resource mobilization play a critical role in enhancing the capacity of NMHSs in RA VI to deliver essential services. WMO involvement in EU-funded projects, such as those supporting the EW4All initiative, is vital to ensure alignment with broader global objectives, disseminate knowledge, and support less developed countries within RA VI. These projects are instrumental in building resilience and improving climate services across Europe and beyond, fully aligning with WMO strategic goals.

Recent assessments reveal that 11 NMHSs in Region VI (RA VI) have significant gaps, with many lacking MHEWSs. This underscores the need for RA VI Members to focus not only on supporting and mobilizing resources for the LDCs but also on addressing the critical needs of MICs and RA VI countries that require assistance.

It is also crucial to recognize that RA VI not only benefits from WMO projects and the VCP but also acts as a key player in mobilizing resources for developing regions through partnerships with the EU, other regional bodies, multilateral development banks, CREWS, SOFF, and national agencies responsible for ODA. These collaborations enable WMO to extend support and technical expertise to the global south, particularly under the EW4All initiative. WMO encourages RA VI Members to continue their engagement and commitment to developing enhanced hydrometeorological services and infrastructure in the least developed regions, thereby ensuring the sustainability of global and regional services and products for the entire WMO community.

### Resources

WMO Resource Mobilization Strategy 2024–2027.

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1. [1] See [Resolution 74 (Cg-18)](https://library.wmo.int/viewer/56690?medianame=1236_en_#page=240&viewer=picture&o=bookmark&n=0&q=) – Closing the capacity gap: scaling up effective partnerships for investments in sustainable and cost-efficient infrastructure and service delivery; and [Decision 11 (EC 72)](https://library.wmo.int/idviewer/57221/136) – Scaling up effective partnerships and scope, scale and progress of WMO development projects. [↑](#footnote-ref-2)