

Management Committee of the Intergovernmental Board on Climate Services

Sixth session

Rome, Italy

24–25 October 2018

Abridged final report with decisions



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METEOROLOGICAL
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GFCS

GLOBAL FRAMEWORK FOR
CLIMATE SERVICES

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GENERAL SUMMARY OF THE WORK OF THE SESSION

1. OPENING OF THE SESSION (agenda item 1.1–1.2)

The sixth session of the Management Committee of the Intergovernmental Board on Climate Services (IBCS MC-6) was opened by Dr Laxman Singh Rathore, Acting Chair of IBBS, at 9.30 a.m. on Wednesday, 24 October 2018, at the headquarters of the Food and Agriculture Organization of the United Nations (FAO), Viale delle Terme di Caracalla, 00153, Rome, Italy.

Dr Rathore highlighted the major achievements of the Global Framework for Climate Services (GFCS), including: partnership development; the promotion of a fast-tracking approach through twinning arrangements, allowing advanced National Meteorological and Hydrological Services (NMHSs) to provide a suite of data, products, needed technical support services and training to less developed NMHSs; the establishment of National Frameworks for Climate Services (NFCSs) to strengthen the co-production, availability, delivery and application of science-based climate predictions and services; and the establishment by WMO of a mechanism for its contribution to the GFCS, comprising the presidents of WMO regional associations, the presidents of technical commissions and representatives of WMO and co-sponsored programmes, under the chairmanship of the president of WMO. Dr Rathore also highlighted weaknesses associated with the fact that many projects or initiatives supporting climate services lack coordination, resulting in duplications and gaps in addressing user needs, as well as low levels of resource mobilization for the implementation of the vast number of activities contained in the GFCS implementation plan.

In his opening statement, Mr René Castro, Assistant Director-General of the FAO Climate, Biodiversity, Land and Water Department, noted that hunger has risen for the third consecutive year owing to adverse weather and climate events, conflicts and economic slowdowns. He further noted that climate change and changing climate patterns place additional stress on ecosystems, threatening biodiversity, affecting productivity and increasing outbreaks of pests and diseases. Climate information and services are important tools for strengthening adaptive capacities, as well as essential pillars in the range of measures available to reduce climatic risks, support livelihoods, protect assets and improve food security and nutrition, thereby contributing to resource management and improved preparation for and responses to the changing climate.

Mr Castro also highlighted issues that need additional attention as part of the efforts under the GFCS. These include the uncertainty and robustness of climate services, the capacity of national institutions to support user needs, understanding the relevance of climate information for users and avoiding the confusion that results from the large number of players at different levels in the provision of climate services. Mr Castro concluded by calling for continued collaboration in pursuit of the goals of the GFCS.

1.1 Organization of the session (agenda item 1.3)

The session adopted the agenda as it had been proposed.

2. REPORTS (agenda item 2)

2.1 Report of the Chair of the Intergovernmental Board on Climate Services (agenda item 2.1)

STATUS OF IMPLEMENTATION OF NATIONAL FRAMEWORKS FOR CLIMATE SERVICES

2.1.1 The Management Committee (hereafter Committee) noted that key to the effective implantation of climate services at the national level is the implementation of NFCSs. NFCSs are the institutional mechanisms for coordinating, facilitating and strengthening collaboration among national institutions and other key stakeholders, such as the United Nations and international agencies, to improve the co-production, tailoring, delivery and use of science-based climate services. They ensure that the entire value chain for the production and application of climate services is addressed systematically, with the involvement of all relevant stakeholders in a coordinated manner. In this regard, the Committee was pleased to note that a publication entitled "Step-by-step Guidelines for Establishing a National Framework for Climate Services" has been produced by the GFCS office and is now available in all WMO official languages at the following link: https://library.wmo.int/doc_num.php?explnum_id=4335. The Step-by-step Guidelines publication is an important resource Members can use to establish their NFCS.

2.1.2 Beginning with the initial four countries (Burkina Faso, Chad, Mali and Senegal), NFCSs have been started in various parts of the world with support from the GFCS and are at various stages of development, as illustrated at http://www.wmo.int/gfcs/NFCS_status, which is regularly updated using the following source information spreadsheet: https://docs.google.com/spreadsheets/d/1AB_iPtoUC1grAASho1II4CGiNbV_8ExS482hh89Ptsc/edit#gid=1331275203. Countries such as China, Germany, Switzerland and the United Kingdom have developed their NFCS independently. More information on national action plans can be found here: <http://gfcs-climate.org/national-action-plans>.

2.1.3 The implementation of NFCSs is gaining impetus. The Economic Community of West African States (ECOWAS) is partnering with the GFCS to support its Member States in establishing their NFCSs. Through funding made available by ECOWAS, the Gambia, Guinea-Bissau, Guinea and Togo have conducted their national consultations and are formulating their strategic and costed action plans for their NFCSs. Cabo Verde and Nigeria are currently pursuing the same process. Similarly, the GFCS is partnering with the Gulf Cooperation Council (GCC) to support the establishment of NFCSs in Bahrain, the United Arab Emirates, Kuwait, Oman, Qatar and Saudi Arabia. A regional workshop is being organized by the GCC at the end of the year to kick-start the project.

2.1.4 At a strategic level, NFCSs have been recognised as key mechanisms for the development of capacities as part of the Global Weather Enterprise and public-private engagement. In addition, the Green Climate Fund (GCF) has recognized that NFCSs are essential for the implementation of its projects. Other key actors, such as the World Bank, are integrating NFCSs into their hydromet investment activities.

PROJECTS

2.1.5 The European Commission, under European Development Fund (EDF) 11, has approved an € 85 million grant for an Intra-Africa, Caribbean and Pacific (ACP) Climate Services and Related Application Programme. The specific objective of the programme is to strengthen the climate services value chain by building the capacities of decision-makers at all levels to make effective use of climate information and services. The programme design is well underway with the beneficiary entities (African Union Commission – AUC, Caribbean Institute of Meteorology and Hydrology – CIMH, Pacific Regional Environment Programme - SPREP, ECOWAS, Economic Commission of Central African States – ECCAS, Southern Africa Development Community – SADC, Indian Ocean Commission – IOC and the Intergovernmental Authority on Development – IGAD) and supporting partner organizations (ACP Secretariat, Joint Research Centre – JRC and WMO) formulating their proposals. Implementation is scheduled to begin in early 2019

pending signature of the grant agreements between the European Commission and the beneficiary entities and partner organizations.

2.1.6 The Intra-ACP Climate Services and Related Applications Programme consists of five outputs that relate to the value chain for the production and application of climate services. These include: Output 1: Establishment of user interface platforms supported by national and regional frameworks for climate services; Output 2: Strengthening of the Climate Services Information System at regional and national levels; Output 3: Strengthening observations and monitoring systems, as well as research, modelling and prediction; Output 4: Capacity development to generate and apply climate information and products; Output 5: Bridging the gap between science and policy to enhance climate-informed decision-making.

2.1.7 The European Commission, under the Horizon 2020 Work Programme 2018-2020, and specifically under the "Climate Action, Environment, Resource Efficiency & Raw Materials" challenge, included a specific action, "LC-CLA-05-2019: Human Dynamics of Climate Change (Research and Innovation Action)", which contains a climate services action for Africa. The action includes a budget of a maximum € 23 million for projects to be implemented over a three-year period. Applications are open from 14 November 2018 until 19 February 2019. The action should exploit new, relevant climate data made available by Copernicus and other relevant sources (such as the Global Earth Observation System of Systems) and create dedicated climate services for Africa for at least two of the following sectors: water, energy, land use, health, infrastructure. Actions should develop and deliver tools/applications which demonstrate clear end-user engagement, consultation and participation and which enhance the planning and implementation of climate adaptation strategies in Africa. Actions should consider activities addressed by initiatives such as the GFCS, Copernicus and development cooperation activities and should provide added value. In view of the Climate Services Action for Africa, the GFCS Office has been promoting information on the call and encouraging relevant stakeholders to submit proposals.

2.1.8 Following the successful implementation of the GFCS Adaptation Programme in Africa Phase 1 (2015–2018) in Malawi and Tanzania (see http://gfcs.wmo.int/Norway_2), the second phase of the project was launched in Tanzania and Malawi on 17 and 26 September 2018, respectively. The project, which is to be implemented during 2017–2019, is aimed at enabling the development of climate services in support of decision-making in agriculture and food security, disaster risk reduction and health priority areas. The second phase, as was the case with the first, is being funded by Norway (NOK 36 million) and is being implemented by the Department of Climate Change and Meteorological Services (DCCMS) in Malawi and the Tanzania Meteorological Agency (TMA) in Tanzania, with support from the International Federation of Red Cross and Red Crescent Societies, the World Health Organization (WHO) and WMO.

2.1.9 The "Climate Services for Increased Resilience in the Sahel" project, which was developed by the GFCS Office within WMO, implemented from June 2016 to August 2018 and provided funding in the amount of US\$ 1 million by the United States Agency for International Development (USAID), has come to an end. The project covered three countries, Burkina Faso, Niger and Senegal, and had a specific stream to assist the African Centre for Meteorological Applications for Development (ACMAD) as a Regional Climate Centre to enable it to support the three beneficiary countries. The main achievements of the project included developing the capacities of the NMHSs in data management and rescue; climate diagnostics, monitoring and forecasting; and product development, including tailoring of products to specific users. Working groups were developed as user interface platforms, which allowed the production of climate and health and climate and water bulletins in Niger for the first time.

2.1.10 The USAID-funded two-year project “Assessing Sustainability and Effectiveness of Climate Information Services in Africa” (Sustainable CIS) was completed in September 2018. It was co-implemented by Winrock International, WMO/GFCS, the International Research Institute for Climate and Society, the Climate System Analysis Group, and the Agriculture, Hydrology and Meteorology Regional Centre. It sought to answer the question “What are sustainable and effective models for CIS?” and developed models and options for sustainable delivery of CIS in Sub-Saharan Africa, using Côte d'Ivoire, Ethiopia, Malawi, Mali, Niger, Senegal and Rwanda as examples. The outcomes of the project contribute to achieving the broader objective of ensuring an effective global weather enterprise for the users' increased resilience and sustainable development, bridging the funding and investment gap for NMHSs and consolidating and extending knowledge on the existing CIS. The project delivered a baseline survey and metrics to assess the capacity of NMHSs to deliver climate information and services, a financial planning tool to support NMHSs in sustainably managing the financial aspects of their climate information systems and a number of reports and policy briefs that cover cost-effective technologies and approaches to climate information systems, capacity development and markets and business models. Going forward, efforts are underway to ensure legacy remains embedded in NMHS practices related to CIS, for example, securing political support for the tools, ensuring streamlining of the tools in the existing global, regional, and national mechanisms and encouraging capacity-building for the successful uptake and effective use of the tools.

PARTNERSHIPS

2.1.11 Partnerships are key for supporting implementation of the GFCS. The Committee noted that the Group on Earth Observations, HELVETAS and the Stockholm Environmental Institute were the last members to join the Partner Advisory Committee (PAC). Currently there are 22 members in the PAC.

2.1.12 The GFCS is partnering with the United Nations Institute for Training and Research for the production of an e-training module entitled “Integrating Climate Risk Information into the National Adaptation Plan (NAP) Process”. The module is to be administered as part of the regional workshops organized by the United Nations Framework Convention on Climate Change (UNFCCC) for the Least Developed Countries Expert Group. The training is being developed as an effort to enable the linking of climate services to the NAP process through the more active participation of NMHSs.

2.1.13 The GFCS is engaged in discussions with the Climate Services Partnership (CSP) with a view to strengthening collaboration. Specific examples of collaboration include potentially developing a joint newsletter to enlarge the audience benefiting from climate services information and working together to organize the next international conference on climate services (ICCS) (called ICCS-6), planned for 2019 in India. A global community of practice on climate services could potentially be one of the main outputs of these collaborative efforts.

2.1.14 The GFCS has also sought to align its activities with those of its partners and with existing implementation initiatives, such as the Climate Risk and Early Warning Systems (CREWS) initiative, the Africa Hydromet Programme, Weather and Climate Information Services for Africa (WISER), and so forth. For example, the crosscutting activities related to institutional development, human resources and production of basic services, as well as sector-specific priorities related to disaster risk reduction and agriculture from the Burkina Faso and Mali NFCs are fully funded by CREWS, the GCF and the International Development Association (World Bank). Significant alignment of activities has also taken place in Niger, with the International Development Association providing support to the National Hydrological Service and the Pilot Programme for Climate Resilience (African Development Bank) providing support to the National Meteorological Service as a complement to GFCS projects and the NFCs.

2.2 Report of the Chair of the Partner Advisory Committee (agenda item 2.2)

2.2.1 The session considered the [report](#) of the Chair of the IBCS PAC. In particular, the session considered the views of the PAC on the report of the Task Force on Governance, Management and Finances of the GFCS.

3. REPORT OF THE TASK FORCE ON GOVERNANCE, MANAGEMENT AND FINANCES OF THE GFCS (agenda item 3)

3.1 The Committee recalled that at its third session (October 2015), it had recommended that a review of the GFCS be conducted at the beginning of the second phase of GFCS implementation (2015–2018). The purpose of the midterm review was to assess the progress of GFCS implementation in order to help provide guidance on how to further improve implementation and measure the success of the activities implemented so far.

3.2 The Committee further recalled that to conduct the midterm review, a team from the University of Arizona was selected through a competitive process. This team carried out the review over a period of four months (April–September 2017) and produced the Mid-Term Review Report, which was considered by the fifth session of the IBCS Management Committee (Reading, UK, 19–20 October 2017).

3.3 In order to respond to the key findings and recommendations of the Mid-Term Review Report, the Committee established a task force to address issues relating to GFCS governance, management and finances. The task force is chaired by Mr David Grimes (Canada), with representation from the British Caribbean Territories, Japan, Russia, South Africa, Switzerland and the United Kingdom. It also includes members of the PAC, namely, the European Commission, FAO, Norwegian Refugee Council (NRC) and World Bank. The task force is supported by a broader consultative group that includes members of the Management Committee, members of the PAC and the Chair and Vice-Chair of the GFCS Operational and Resources Plan task team. The purpose of the task force is to provide recommendations for improving GFCS governance, management structures and funding for the consideration of the sixth session of the Management Committee of the IBCS (Rome, October 2018), with a view to preparing recommendations for the consideration of the Eighteenth World Meteorological Congress (Cg-18).

3.4 The Committee expressed its appreciation for the work done by the task force and thanked the Chair, the chapter leads, the members of the committee and the PAC who contributed to the development of the task force report (see http://www.wmo.int/gfcs/sites/default/files/Proposals%20on%20Gov_Man_Fin-GFCS_final.pdf).

3.5 The Committee was requested to review the task force report, to provide the appropriate recommendations to be considered by Cg-18 and to carry out any other action necessary to ensure that the recommendations were finalized before the start of Cg-18.

3.6 The Committee reviewed the report of the Task Force on Governance, Management and Finances of the GFCS and made the comments and recommendations below.

Comments

3.7 The Committee stressed that the GFCS was more important today than when it was established in 2009. The increasing climate risk and the resulting need to enhance

adaptive capacity, strengthen resilience and reduce vulnerability to climate change, as well as the need to strengthen scientific knowledge, as called for under Article 7 of the Paris Agreement, make the GFCS a needed framework to provide a credible, integrative and unique platform for enhancing coordination and guiding and supporting climate services activities worldwide.

3.8 The Committee recognized that since 2009, important contextual changes have occurred, in particular in the post-2015 period, which saw the adoption of the Paris Agreement of the UNFCCC at COP 21 (December 2015) and of the Sendai Framework for Disaster Risk Reduction 2015-2030 (March 2015). 2015 also saw the operationalization of the GCF, the main financial mechanism for supporting climate action under the Paris Agreement. Currently, a large volume of projects supporting climate resilience, climate risk management, climate change adaptation, and so forth are under implementation and involve many different actors, stakeholders and financial streams. To succeed, these agreements and frameworks require relevant scientific data and information products and services and need to be organized into operational systems to support effective climate action.

3.9 After considering the contextual changes since 2009 and the lessons learned from the implementation of the GFCS with respect to governance, management and finances, the Committee supported the need for change, with due diligence, in order to increase the effectiveness of GFCS implementation and ensure the broader participation of stakeholders. The Committee called for more insight before Cg-18 on the proposed changes, including legal considerations and the need to explore pathways on how the GFCS could engage and support major processes and agendas such as the UNFCCC.

3.10 The Committee agreed with the four main tasks under Step 1 a) (adjusting the Resource mobilization task to ensure that the GFCS is not seen as a funding mechanism) and agreed that the Secretariat should have a broader coordination role. The Committee also agreed with Step 1 b), the Secretariat location (WMO) and structure and Step 1 c), the Secretariat composition.

3.11 The Committee further agreed that any Step 2 management structure would reflect decisions made on Step 2 governance.

3.12 The Committee noted that given the declining contributions to the GFCS Trust Fund and the resulting risks posed to the renewed focus on the governance and management of the GFCS implementation process, the WMO Secretary General and the IBCS Chair should encourage those countries that are unable to make financial contributions to the GFCS Trust Fund to consider other means of supporting GFCS implementation, including the use of secondments and in-kind support to the GFCS Secretariat/Office.

Recommendations

Governance

A) Recommendations on the Step 1 Governance structure:

The Management Committee of the IBCS:

1. Endorses the main elements of the Step 1 governance structure;
2. Requests that the Task Force on Governance, Management and Finances of the GFCS, with the support of the Secretariat and any volunteers from the Management Committee,

- a. Further evaluate the composition and size of the proposed Executive Committee alongside the suggestions made in the task force report and clarify with potential members their interest in and availability for membership in this Committee;
- b. Evaluate the legal issues associated with the dissolution of the IBCS, the IBCS Management Committee and the PAC and the creation of and membership in the Executive Committee (in consultation with PAC members) under the WMO rules and procedures;
- c. Recommend that the terms of reference of the Executive Committee be adopted by Congress-18;
- d. Prepare the appropriate resolutions to be submitted to Congress-18, taking place in 2019, which:
 - Dissolve the IBCS and its substructures;
 - Endorse the role of the World Meteorological Congress as the supreme governing body of the GFCS;
 - Establish appropriate governance and management structures for the GFCS, including its working mechanisms, along with the related terms of reference;
 - Propose a mechanism (like PAC) for the effective engagement of participating organizations or entities that support the development of climate services;
- e. Submit the work of the task force, with proposals, to the IBCS Management Committee in February 2019 for the Committee's further consideration and approval.

B) Recommendations on the Step 2 Governance structure:

The Management Committee of the IBCS recommends that further deliberations of the proposed Step 2 of the work of the task force be deferred and requests that Congress 18 recommend a process for further deliberations on the evolving structures and membership, including the feasibility and benefits of co-sponsorship of the GFCS with such organs as UNFCCC, among others, with the aim of further strengthening the engagement and political anchoring of the GFCS. Recommendations would be considered by a future Congress.

Management

It is recommended that the Management Committee of the IBCS, with advice from the PAC,

1. Request that the Task Force on Governance, Management and Finances of the GFCS, with the support of the Secretariat, prepare a resolution:
 - a. To reflect the four core priority functions for the management of the GFCS and provide example activities within which these could be executed;
 - b. To further explore how to enhance regional capacities for the management of the GFCS through such mechanisms as WMO Regional Associations and other working structures of WMO.
2. Request that the Task Force on Governance, Management and Finances of the GFCS prepare the terms of reference to reflect the current and future

requirements of the GFCS Secretariat/Office for consideration by Congress in order to reflect the renewed focus on GFCS governance and management.

Finances

A) High priority recommendations

The Management Committee of the IBCS:

1. Requests that the WMO Secretary General provide the resources to fund the full operation of the GFCS Secretariat/Office in accordance with the recommendations and decisions of the Sixteenth World Meteorological Congress or seek resources from the GFCS Trust Fund for those staff members currently funded by the Trust Fund;
2. Requests that the Secretary General and Chair of the IBCS urgently prepare a correspondence to WMO Members outlining the critical role the GFCS Trust Fund plays, and will play in the future, in the implementation of the proposed changes in governance and management of the GFCS and urging Members to consider making regular contributions to the Trust Fund.

B) Recommendations to the GFCS Secretariat/Office

1. The GFCS Secretariat/Office should prepare a report for the 18th World Meteorological Congress highlighting the achievements of the GFCS implementation to date and demonstrating the contributions made by the GFCS Trust Fund, Members and partner organizations;
2. The GFCS Secretariat/Office should prepare brochures and a poster highlighting the successful achievements of the GFCS implementation to date for presentation to the 18th World Meteorological Congress;
3. Starting in 2019, the GFCS Secretariat/Office should share its work plan, associated budget and risk mitigation strategy for GFCS implementation for the following year, along with the status of the GFCS Trust Fund, with Members and partners to encourage contributions to the fund;
4. The GFCS Office should work with the GCF to explore the suite of existing products/services that the GFCS Office and Members can provide to the GCF to ensure that submitted projects have the requisite climate rationale and, where appropriate, alignment with the GFCS. This would lead to an increase in GFCS branded projects (for example, GFCS projects and GFCS contributing projects). Support for such products and services could be derived from the GCF country readiness funds.

C) Other recommendations in the planning and management of the GFCS

1. New approaches to finance and expand implementation of the GFCS in a sustainable manner should be explored at all levels of implementation, including:
 - a. Joint programming of implementation activities at all levels with partners to leverage resources;
 - b. Closer alignment of elements of the GFCS programme to appropriate national and regional climate resilience and climate change mitigation and adaptation programmes;

- c. Decentralized models that blend regional and national resources, partnerships and priorities and remove challenges associated with more top-down centralized models;
 - d. Identifying and building new partnerships with regional multilateral development banks, NGOs and foundations;
 - e. Assisting regional/national implementation partners with building sustainable business/operating models appropriate to their mandates and functions.
2. Resource mobilization should be strengthened at all levels of GFCS implementation by building and sharing a searchable database of national, regional and global funding agencies and their priorities;
 3. Enhanced monitoring and reporting of GFCS-related activities should be developed and implemented at the global, regional and national levels to avoid duplication of efforts among partners, improving the alignment of implementation activities. Additionally, an effort should be taken mobilize resources in order to enhance the implementation capacity of regional and national implementing partners.

Overall recommendation on governance, management and finances

It is further recommended by the Management Committee of the IBCS:

That the Secretariat supporting the task force should develop:

1. A stronger rationale, better advocating and communicating the benefits of the GFCS and the proposed changes in governance and management to support the deliberations of Congress; and
2. A transformation and communication strategy/plan which aligns with the WMO constituent body reform communication and which defines champions who will communicate and lobby for the suggested changes in GFCS governance and management (for example, at specific meetings, such as the Executive Council Working Group on Strategic and Operational Planning meeting taking place in 2019, and so forth).

4. REVIEW/DISCUSSION OF THE PRESENTATIONS OF THE TASK FORCE ON GOVERNANCE, MANAGEMENT AND FINANCES OF THE GFCS (agenda item 4)

The session discussed and approved recommendations and additional steps needed to complete any work deemed necessary to be tabled for consideration by the Eighteenth World Meteorological Congress. The session also reviewed progress made by the various task forces and working groups established by the Committee at its last meeting.

5. PROGRESS ON GFCS IMPLEMENTATION WITH A FOCUS ON SECRETARIAT ACTIVITIES (agenda item 5)

Background

This report covers activities implemented by the GFCS Office since the Fifth Session of the Management Committee of the IBCS. The Fifth Session was held from 19 to 20 October 2017 at the United Kingdom of Great Britain and Northern Ireland,

European Centre for Medium-Range Weather Forecasts (ECMWF) Headquarters in Reading, United Kingdom.

During the reporting period, the GFCS continued focusing on its role as a framework with broad participation and reach connected to the United Nations system that enables the development and application of climate services to assist policymaking and decision-making worldwide at all levels in support of addressing climate-related risks. The GFCS Office has also continued spearheading and co-implementing a limited number of projects.

5.1 Partnerships and outreach activities

5.1.1 During the reporting period, the GFCS Office engaged with WMO departments and programmes and external partners to further the following activities:

- Developing the climate rationale¹ by an interdepartmental team within WMO for GCF projects;
- Contributing to the implementation of the CREWS initiative;
- Contributing to the implementation of national and regional climate outlook forums;
- Developing an intra-ACP project proposal;
- Building on the existing links with the CSP, an informal interdisciplinary network formed in 2011, strengthening partnerships with a particular focus on preparing ICCS-6, taking place in 2019 and working on the joint GFCS/CSP newsletter;
- Contributing to the WMO-wide adaptation projects database to assess the total amount that is invested in improving the capacity of NMHSs with respect to hydromet and climate services;
- WHO/WMO joint office user-engagement: publication of two editions of the Clim-Health Africa newsletter, update of climhealthafrica.org, launch of the website www.ghhin.org and publication of the first edition of Global Heat Health Information Network Digest;
- WHO/WMO joint office: facilitation of the Memorandum of Understanding between the World Meteorological Organization and the World Health Organization;
- WHO/WMO joint office: representation of health user needs on the Future Earth Advisory Committee and the Development Team of the Health Knowledge Action Network.

¹ The climate rationale provides the scientific underpinning for evidence-based climate action decision-making and the theory of change of all activities funded by the GCF. It ensures that the set of causal linkages between climate and climate impacts and between climate action and societal benefits is fully grounded in the best available climate data and science concerning the most relevant climatic factors. (WMO concept note, 2018)

5.1.2 Under the NFCS process², the GFCS Office and the GFCS regional office in Dakar, Senegal provided expertise to support the national consultation process for the implementation of NFCSs in twelve countries (Tanzania, Moldova, Guinea, Guinea Bissau, Gambia, Togo, Ethiopia, Mauritania, Niger, Rwanda, Benin and Colombia).

This involved:

- Ensuring that vulnerable communities were represented and fully participated in NFCS development;
- Delivering a road map for the development of an NFCS strategic and action plan, including agriculture, disaster risk reduction, water resources, meteorology, health, energy, transport and tourism;
- Delivering recommendations for the joint monitoring and evaluation of the strategic and action plan;
- Conducting a follow-up/an assessment of the development of the strategic and action plans of the NFCS;
- Assisting in the preparation and organization of national workshops regarding the validation of the strategic and action plans of the NFCS; sensitizing and getting the support of the top government officers, stakeholders, United Nations agencies and other technical and financial partners, NGOs and civil society for the sustainable implementation and operationalization of the NFCS action plan;
- Assisting the permanent representatives of NMHSs with WMO with the political endorsement of the NFCS and resource mobilization for the implementation of the action plan.

In this context, the GFCS Office has provided direct support to and attended the following events (also listed under: https://gfcs.wmo.int/NFCS_status):

1. 23-24 August 2018, Tanzania (Step 5) national consultation on climate services. WMO Press Release: <https://public.wmo.int/en/media/news/tanzania-launches-national-framework-climate-services>.
2. 26-27 July 2018, Chisinau, Moldova (Step 1) national consultation. Report: <https://zoinet.org/wp-content/uploads/2018/10/Climate-Services-Moldova-WEB.pdf>.
3. 11-12 July 2018, Conakry, Guinea (Step 2) national consultation. Materials: <http://www.wmo.int/gfcs/NatConGuinea>.
4. 3-5 July 2018, Mansoa, Guinea Bissau (Step 2) national consultation. Materials: <http://www.wmo.int/gfcs/NatConGuineaBissau>.

² Steps to achieving a coordinated National Framework for Climate Services: Step 1: Conduct a comprehensive baseline capacity assessment for the development of climate services; Step 2: Support NHMSs to develop a strategic plan and engage in a national consultation process for climate services; Step 3: Develop a national action plan; Step 4: Organize an action plan endorsement workshop; Step 5: Begin implementation of the action plan and launch an NFCS; Step 6: Advanced NFCS (currently, achieved only by China, Germany, United Kingdom and Switzerland).
NFCS status update (October 2018): http://www.wmo.int/gfcs/NFCS_status; source information spreadsheet: https://docs.google.com/spreadsheets/d/1AB_iPtoUC1grAASho1II4CGiNbV_8ExS482hh89Ptsc/edit#gid=1331275203

5. 26-27 June 2018, Banjul, Gambia (Step 2) national consultation. Materials: <http://www.wmo.int/gfcs/NatConGambia>.
6. 29-31 May 2018, Lome, Togo (Step 1) national consultation. Materials: <http://www.wmo.int/gfcs/NatConTogo>.
7. 26-27 April 2018, Addis Ababa, Ethiopia (Step 5) national consultation organized by the National Meteorological Service of Ethiopia. Materials: <http://www.wmo.int/gfcs/node/1161>. News item: <http://www.wmo.int/gfcs/node/1183>.
8. 19 February 2018, Nouakchott, Mauritania (Step 2) national consultation organized by the National Meteorological Service of Mauritania. Materials: <http://www.wmo.int/gfcs/PromMauretania>.
9. NFCS training under 'Climate Services for Increased Resilience in the Sahel', organized on 13-15 February 2018 by ACMAD in Niamey, Niger (Step 5).
10. 5-7 December 2017, Kigali, Rwanda (Step 2) national consultation on Climate Services. Materials: <http://www.wmo.int/gfcs/national-consultation-rwanda>.
11. 22-27 November 2017, Cotonou, Benin (Step 2) national consultation. Materials: <http://www.wmo.int/gfcs/national-consultation-benin>.
12. 22-24 August 2017, Brazzaville, Congo (Step 2) national consultation.
13. 1-3 November 2017, Bogota, Colombia (Step 2) national consultation. The consultations followed the technical workshop and meetings to prepare the WMO adaptation fund project "Enhancing Adaptive Capacity of Andean Communities through Climate Services (ENANDES)" Countries: Chile, Colombia, Peru. The implementation will be supported by the NFCS.

5.1.3 During the reporting period, the GFCS participated in and presented at the following events and meetings:

1. 20-25 September 2018 – ECOWAS Hydromet Forum organized by ECOWAS, the African Ministerial Conference on Meteorology, the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT). The GFCS Office held a side event: "Investing in National Frameworks for Climate Services to Support Climate Services Development and Delivery to the End User" on 20 September.
2. Norway-funded GFCS Adaptation Programme in Africa Phase II technical meetings and inception workshops, held on 17-18 September 2018 in Tanzania (http://www.wmo.int/gfcs/apaII_tan) and on 25-26 September 2018 in Malawi.
3. 17-19 September 2018 – Global Framework for Climate Services Office (GFCSO), co-organized and attended the regional outreach workshop to refine the outcomes of the USAID-funded Sustainable CIS project. The event attempted to overcome silos by bringing together 20-25 participants from the NMHSs of seven Sahel countries, the private sector and intergovernmental organizations to define priorities and identify synergies for improved climate information services delivery.
4. 11-12 September 2018 – WMO-WHO Joint Climate and Health Office provided technical support and training to WHO, training on climate and health with a specific focus on integrated surveillance and EWS for the roll out of the Climate Services Readiness Assessment tool, organized by WHO in Nairobi, Kenya.

5. 4-5 September 2018 – The WMO-WHO Joint Climate and Health Office virtually attended the Lancet Countdown on Climate Change and Health, the mechanism for reporting climate service availability and access to the health sector, in London, United Kingdom.
6. 4-10 July 2018 - Evaluation of the USAID project “Climate Services for Increased Resilience in the Sahel” by Mannava Sivakumar, Evaluation Consultant.
7. 24 June-14 July 2018 – GFCS Junior Professional Officers (JPO), attended a training session on hydrology organized by the USAID-funded Flash Flood Guidance System (FFGS) project in Antalya, Turkey.
8. 18-19 June 2018 – The GFCS Office attended the Adaptation Futures 2018 Conference and the Joint Programming Event on Climate Services in Cape Town, South Africa. The GFCS Office organized a side event on 18 June, “Exploring ways of International Cooperation in Climate Services for Africa”, attended by 62 participants representing NMHSs, regional institutions, research institutions, NGOs, the private sector and development partners.
(<http://www.wmo.int/gfcs/what-are-we-learning-about-cis-delivery>)
9. 12-14 June 2018 – Intra-ACP meeting organized by EUMETSAT in Darmstadt, Germany, for grant consolidation purposes for the programme and related applications.
10. 21-26 May 2018 - WMO-WHO Joint Climate and Health Office intervened on behalf of WMO at the 71st World Health Assembly (WHA) held by WHO in Geneva, Switzerland. The Health, Climate and Environment Coalition was launched alongside WHA by WMO, WHO and UN Environment.
11. 10-11 May 2018 - WMO-WHO Joint Climate and Health Office attended the Our Planet, Our Health Programme Workshop, organized by Wellcome Trust, in London, United Kingdom. The workshop included a donor investment scoping meeting to define new climate and health research funding agenda Wellcome Trust.
12. 18-19 April 2018 – The WMO-WHO Joint Climate and Health Office attended the Climate, Environment and Health Collaborative Research Action Scoping Workshop organized by Belmont Forum Future Earth in Washington, DC, USA. Scoping meeting to inform Belmont Members of common research actions on climate, the environment and health.
13. 8-13 April 2018 - GFCS JPO attended the European Geosciences Union (EGU) Conference in Vienna, Austria.
14. 5-6 April 2018 – The GFCS Office attended the eighth session of the PAC in Oslo, Norway.
15. 26-29 March 2018 – GFCS JPO attended the United Nations Environment and United Nations Development Programme Training for Trainers on running effective training workshops for Least Developed Countries (LDCs). The event was organized by the United Nations Institute for Training and Research and held in Bangkok, Thailand.
16. 26-29 March 2018 – The GFCS office attended the IGAD Climate Prediction and Applications Centre (ICPAC) Knowledge Management meeting in Nairobi, Kenya.

The meeting included discussions on Weather and Climate Information Services for Africa.

17. 22-23 March 2018 – Thirty-first session of the Adaptation Fund Board Meeting, held in Bonn, Germany.
18. 12-16 March 2018 - GFCS held a number of meetings at the WMO Headquarters in Geneva, Switzerland to link the Sustainable CIS project to WMO global work related to approaches to assessing NMHS climate information systems capacities.
19. 22-27 January 2018 - The WMO-WHO Joint Climate and Health Office attended the 142nd session of the WHO Executive Board meeting held in Geneva, Switzerland.
20. 18-20 December 2017 - Africa Caribbean and Pacific – Africa grants coordination meeting organized by EUMETSAT in Nairobi, Kenya. The purpose of the meeting was to develop a clear view among the regional institutions (Regional Economic Communities and associated Regional Climate Centres) regarding the scope of the grant proposals. This meeting is part of the intra-ACP Climate Services initiative WMO and GFCS are developing.
21. 6-7 December 2017 - Second Copernicus Climate Change Expert Panel organized by Copernicus in Reading, United Kingdom. The GFCS Director spoke in one of the sessions about GFCS links to the Copernicus Climate Change Service with Global Climate Observing System, World Climate Research Programme and National Oceanic and Atmospheric Administration colleagues.
22. 29 November 2017 - GFCSO (Filipe Lucio) attended The Future of Climate Services, organized by the European Commission and ClimateEurope in Brussels, Belgium. This was part of discussions held at the end of November on climate services initiatives of the EC and on Horizon 2020 and European Research Area Network projects; the GFCS was invited to partake in these discussions.
23. 6-17 November 2017 - Conference of Parties-23 session organized by UNFCCC in Bonn, Germany. On 15 November, the GFCS organized a COP-23 side event: "Climate Services for Small Island Developing States (SIDS) and Least Developed Countries (LDCs)" in the EU Pavilion focusing on reaching the 'last mile' and creating partnerships. The side event was attended by 25-30 representatives of various agencies and NGOs.
24. 8-9 November 2017 - Belmont Forum Plenary organized in Sao Paulo, Brazil. The WMO-WHO Joint Climate and Health Office attended the event on behalf of WHO and the Future Earth Health Knowledge Action Network to engage in scoping of further investments in climate, environment and health research, with a particular focus on serving the needs of LDCs.
25. 30 October-1 November 2017 - Technical Workshop on Water, Food and Energy Nexus for Climate Risk Management: Advanced Seasonal Forecasting Systems to Support Decision-Making, co-organized by WMO, the Colombian Meteorological Service and USAID in Bogota, Colombia. The GFCS Office joined WMO in this event to address technical and scientific barriers in the current national prediction systems. The GFCS also attended the events related to the WMO Adaptation Fund project proposal "Enhancing Adaptive Capacity of Andean Communities through Climate Services (ENANDES) Countries: Chile, Colombia, Peru" that focused on Disaster Risk Reduction and Early Warning.

26. 24 October 2017 - 3rd meeting on strengthening weather and climate services in low income countries through Nordic partnerships upon the invitation of the Finnish Meteorological Institute. Filipe Lucio represented the GFCSO.

5.1.4 During the reporting period, the GFCS published/contributed to the following publications:

1. WMO/Global Framework for Climate Services, 2018: *Step-by-step Guidelines for Establishing a National Framework for Climate Services* (WMO-No. 1206). Geneva, available in all WMO official languages
https://library.wmo.int/doc_num.php?explnum_id=4335
2. MeteoSwiss/Senamhi, 2018: *Designing user-driven climate services. What we can learn from the Climandes project: A checklist for practitioners, scientists and policy makers*. Zurich, with a foreword by Filipe Lucio.
https://www.meteoswiss.admin.ch/content/dam/meteoswiss/de/Forschung-und-Zusammenarbeit/Internationale-Zusammenarbeit/doc/UIP_Publication.pdf
3. Pathak, J. and F. Lucio. 2018: Chapter 17 – The Global Framework for Climate Services Adaptation Programme in Africa. In: *Resilience: The Science of Adaptation to Climate Change*. Amsterdam, Netherlands, Elsevier.
<https://www.sciencedirect.com/science/article/pii/B9780128118917000177>
4. Six non-technical blog posts for broader audience published on climatelinks websites under the Sustainable CIS project:
 - Rajabali, F., 15 February 2018: Strengthening Climate Information Services in Africa: Where are the Opportunities?. *climatelinks*
<https://www.climatelinks.org/blog/strengthening-climate-information-services-africa-where-are-opportunities>
 - Rajabali, F., 20 February 2018: The Role of Public-Private Partnerships in Delivering Climate Information Services in Africa. *climatelinks*
<https://www.climatelinks.org/blog/role-public-private-partnerships-delivering-climate-information-services-africa>
 - Dinku, T., 2 April 2018: Climate Information Services to Empower Africa's Farmers. *climatelinks*
<https://www.climatelinks.org/blog/climate-information-services-empower-africa%E2%80%99s-farmers>
 - climatelinks*, 19 July 2018: Examining Climate Information from Production to Uptake:
<https://www.climatelinks.org/blog/examining-climate-information-services-production-uptake>
 - Lennard, C., 21 September 2018: Four Key Capacity Challenges to Provide Expanded Services on Climate Information Services, *climatelinks*
<https://www.climatelinks.org/blog/four-key-capacity-challenges-provide-expanded-services-climate-information-services>
 - Krylova, O. 16 November 2018: Moving the Needle on Sustainable Climate Information Services in Sub-Saharan Africa: Learning from the Regional Outreach Workshop, *climatelinks*
<https://www.climatelinks.org/blog/moving-needle-sustainable-climate-information-services-sub-saharan-africa-learning-regional>

5. World Meteorological Organization, 2018: *Demand for Climate Services for Health in the Caribbean* (A. Trotman, R. Mahon, J. Shumake-Guillemot, R. Lowe and A.M. Stewart-Ibarra). Bulletin Vol. 67 (2).
<https://public.wmo.int/en/resources/bulletin/strengthening-climate-services-health-sector-caribbean>
6. Thomson, M.C., Á.G. Muñoz, R. Cousin and J. Shumake-Guillemot, 2018: Climate drivers of vector-borne diseases in Africa and their relevance to control programmes. *Infectious diseases of poverty* 7(81).
<https://idjournal.biomedcentral.com/articles/10.1186/s40249-018-0460-1>
7. Watts, N., M. Amann, S. Ayeb-Karlsson, K. Belesova, T. Bouley, M. Boykoff, P. Byass, J. Shumake-Guillemot, et al., 2017: The Lancet Countdown on health and climate change: from 25 years of inaction to a global transformation for public health. *The Lancet*, 391(10120):581-630.
8. Watts et al., 2018: The 2018 Report of The Lancet Countdown on Health and Climate Change: shaping the health of nations for centuries to come. *The Lancet*, 392(10163):2479-2514.
9. Thomson, M.C., T.S. Rabie, J. Shumake-Guillemot, J. McDermott, W. James and C. Wannous, 2018: Health priorities in a changing climate. In: *Climate Information for Public Health Action* (M.C. Thomson and S.J. Mason, eds.). Oxon, United Kingdom, Routledge.
10. World Bank Group, 2018: *Methodological guidance: climate change and health diagnostic: A country-based approach for assessing risks and investing in climate-smart health systems (English)*. (Bouley, T., K.L. Ebi, A. Midgley, J. Shumake-Guillemot and C.D.W. Golden). Washington, D.C.
<http://documents.worldbank.org/curated/en/552631515568426482/A-country-based-approach-for-assessing-risks-and-investing-in-climate-smart-health-systems>
11. World Bank Group, 2018: *Madagascar - Climate change and health diagnostic: risks and opportunities for climate-smart health and nutrition investment (English)*. (Bouley, T., A. Midgley, J. Shumake-Guillemot, C.D.W. Golden, K.L. Ebi). Washington, D.C.
<http://documents.worldbank.org/curated/en/936661516004441146/Madagascar-climate-change-and-health-diagnostic-risks-and-opportunities-for-climate-smarthealth-and-nutrition-investment>
12. WHO-WMO Joint Office/Health Canada, 2018: *Climate Change and Health Vulnerability and Adaptation Assessment: Workbook for Caribbean Small Island Developing States*. (Scheske, L., J. Shumake-Guillemot, P. Berry, M. Verret, L. Fernandez-Montoya)
13. World Health Organization, 2018: *WHO information to support preparedness and response to heat-waves*. Geneva.
14. Berry, P., P. Enright, J. Shumake-Guillemot, E. Villalobos Prats, D. Campbell-Lendrum. 2018: Assessing Health Vulnerabilities and Adaptation to Climate Change: A review of International Progress. *Int. J. Environ. Res. Public Health*, 15(12) 2626, doi: 10.3390/ijerph15122626
<https://www.mdpi.com/1660-4601/15/12/2626/htm>

5.2 Webinars

5.2.1 15 February 2018: Joy Shumake Guillemot presented the Global Heat Health Information Network and the Climate Services for Resilient Development (CSRDR) partnership, resulting in collaborative and aligned efforts of CSRDR partners with respect to a focus on heat. See: <https://ghhin.org/news/ghhin-partners-with-csrd>

5.2.2 21 February 2018: “African Demand for Weather and Climate Services, and Business Models for Private Sector Engagement”. Recording and presentations: <https://www.climatelinks.org/resources/african-demand-weather-and-climate-services-and-business-models-private-sector-engagement>. The webinar convened panellists from WMO, Earth Networks, Viamo and SouthSouthNorth. Over 219 participants from 68 countries, including 32 African countries, joined the webinar. The participants included donors/investors, implementers, researchers and NMHS staff (National Agency of Civil Aviation and Meteorology of Senegal; Rwanda Meteorology Agency, National Meteorological Service of Cote d'Ivoire, Egyptian Meteorological Authority, Suriname Meteorological Service, Zambia Meteorological Department, Liberia Meteorological Service, Nigerian Meteorological Agency, Swiss Meteorological Agency and UK Met Office Hadley Centre).

5.2.3 2 May 2018: “Understanding Capacity Needs of African National Meteorological and Hydrological Agencies” to discuss a baseline assessment survey and metrics. Recording and presentations: <https://www.climatelinks.org/resources/understanding-capacity-needs-african-national-meteorological-and-hydrological-agencies>. There were 168 attendees representing a number of NMHSs, including those of Senegal, Tanzania, Mozambique, Seychelles, the United Kingdom and others, development partners including USAID, the Department for International Development (DFID) and the World Bank, research institutions, Climate Service Offices and the private sector.

5.2.4 14 June 2018 “Delivering African Climate Information Services Sustainably: Capacity gaps and recommendations for National Meteorological and Hydrological Services” to discuss capacity building in Sub-Saharan African countries. There were 128 webinar attendees representing NMHSs, research institutions and development agencies. Over 35 questions were posed by the participants to the panellists. A follow-up poll demonstrated that over 60% of the attendees gained new knowledge applicable to their work.

5.2.5 “Demonstration and application of a financial planning tool for African NMHS”, held in English on 31 July 2018 and in French on 2 August 2018. Recording and presentations: <http://www.futureclimateafrica.org/news/webinar-registration-demonstration-and-application-of-a-financial-planning-tool-for-african-nmhs/>. The webinars were attended by more than 100 participants.

5.2.6 “Way Forward for Climate Services Delivery: Systems Perspective”, hosted by WMO on 31 October 2018, with enabled remote participation to discuss overall findings resulting from the implementation of the Sustainable CIS project.

5.3 Project implementation activities

5.3.1 Norway funded a two-year GFCS Adaptation Programme in Africa. Phase II was launched on 17 September 2018 in Tanzania and on 25 September 2018 in Malawi. Phase II (2017-2019) has a budget of NOK 63 million (US\$ 4.6 million). It will be implemented by the DCCMS, the TMA, the International Federation of Red Cross and Red Crescent Societies, the World Food Programme, WHO and WMO, which will be the lead partner. The national Ministries for Agriculture, Health and Disaster Risk Reduction will also be involved in the programme.

5.3.2 The goal of the Adaptation Programme in Africa is “to improve the lives of vulnerable populations through enhanced access and understanding of high-quality, action-oriented climate services and policies supporting mainstreaming of climate services in development and adaptation planning”. Phase II aims to achieve: (1) enhanced capacity of TMA/DCCMS to provide climate services; (2) strengthened use of climate information by vulnerable communities for food security and livelihoods; (3) strengthened capacity of health professionals to use climate information for public health preparedness and resilience to climate-related health risks; (4) increased use of climate and weather information by vulnerable communities (four in Tanzania and four in Malawi) to improve disaster risk reduction (see https://www.wmo.int/gfcs/GFCS_APA_II). USAID funded the two-year “Assessing Sustainability and Effectiveness of Climate Information Services in Africa” (Sustainable CIS) project, which was completed in 2018. Co-implemented by Winrock International, WMO/GFCS, the International Research Institute for Climate and Society, the Climate System Analysis Group and the Agriculture, Hydrology and Meteorology Regional Centre, the project sought to answer the question “What are sustainable and effective models for CIS?”. It developed realistic models and options for sustainable CIS delivery piloting in Côte d'Ivoire, Ethiopia, Malawi, Mali, Niger, Senegal and Rwanda.

The outcomes of the project: a baseline assessment survey and metrics and a financial planning tool, along with reports, for example, exploring cost-effective technologies and CIS business models, contribute to achieving the broader objectives of ensuring the effectiveness of the global weather enterprise, bridging the funding and investment gap for NMHSs and consolidating and extending knowledge of the existing CIS. Its outreach events at the Adaptation Futures Conference in June 2018, at the regional outreach workshop in Senegal in September 2018 and at the final outreach workshop in the USA in December 2018 brought together a number of NMHSs, public and private sector entities and development partners. The project brief is available at https://www.climatelinks.org/sites/default/files/asset/document/2017_August_Assessing%20Sustainability%20%26%20Effectiveness%20of%20CIS%20in%20Africa_two%20pages.pdf.

5.3.3 USAID funded the two-year project “Climate Services for Increased Resilience in the Sahel” (US\$ 1 million 2016-2018). The project aims to enable societies to better manage the risks and opportunities arising from climate variability and change, especially for those who are most vulnerable to climate-related hazards. More specifically, the project is developing the capabilities of ACMAD as a regional climate centre to better support meteorological services in the Sahel. It is also developing capacities in Burkina Faso, Niger and Senegal to maximize the use of, and benefits from, weather and climate products, such as regular climate and health bulletins, delivered by ACMAD and other centres (<http://www.wmo.int/gfcs/sahel-project>).

5.3.4 The one-year Korean Meteorological Agency (KMA)-funded “Climate prediction and adaptation” set of three projects (US\$ 410,000) promotes scientifically sound weather and climate information and capacities to develop and use such information for decision-making at the national level. The projects aim to enhance the capacity of countries in Eastern Africa which are members of the IGAD ICPAC. Climate Prediction Analysis Systems will be set up as part of this project in Rwanda, Uganda, Djibouti and Burundi as initial pilot countries. The project in Rwanda is being implemented with the Rwanda Meteorological Agency (RMA). The projects in Uganda and Djibouti are being implemented with ICPAC and in collaboration with the National Meteorological Services of both countries (http://www.wmo.int/gfcs/Climate_Prediction_Analysis_System.)

5.4 Staff movements

5.4.1 In July 2018, Ms Fatema Rajabali completed her short-term consultant assignment in knowledge and outreach for the USAID-funded Sustainable CIS project.

Ms Olga Krylova, fixed-term WMO staff member working for the Climate and Water Department on a 50% basis, took over Ms Rajabali's position to complete this project, which is due to end in November 2018.

5.4.2 In August 2018, Ms Yvette Evers was recruited to cover for Ms Veronica Grasso, who is on maternity leave between July and December 2018. Ms Grasso provides project management expertise to coordinate the implementation of GFCS extra-budgetary projects.

5.4.3 In December 2017, Dr Michael Schwab was recruited as a Junior Professional Officer funded by the German government. He supports communications and outreach, particularly working on the HelpDesk and GFCS website and provides expertise in hydrology.

6. MONITORING AND EVALUATION (agenda item 6)

The session adopted Decision 1 (IBCS MC-6) - Concept for revising the monitoring and evaluation process and criteria for the GFCS, including enhanced alignment with the Paris Agreement, sustainable development goals and the Sendai Framework.

7. GFCS CONSTITUENT BODY MEETINGS IN 2019 (agenda item 7)

The session considered whether an IBCS session or a Management Committee meeting should be held in 2019.

8. ANY OTHER BUSINESS (agenda item 8)

The session considered any other issues deemed relevant by its members.

9. CLOSURE OF THE SESSION (agenda item 9)

The session of the Management Committee of the IBCS was closed at 5.30 p.m. on Thursday, 25 October 2018.

DECISION ADOPTED BY THE SESSION

Decision 1 (IBCS MC-6)

THE MANAGEMENT COMMITTEE

Recalling:

- (1) Resolution 6 (IBCS-1) – Monitoring and Evaluating Implementation of the Global Framework for Climate Services;
- (2) Resolution 1 (Cg.Ext. (2012)) – Implementation of the Global Framework for Climate Services;
- (3) Resolution 48 (Cg-XVI) – Implementation of the Global Framework for Climate Services; and
- (4) Decision 5.2/1 (IBCS MC-4) – Monitoring and Evaluation Process and Criteria for the GFCS,

Having considered

- (1) The Implementation Plan of the Global Framework for Climate Services (GFCS), specifically section 4.6.1 Implementing Framework Management, monitoring and evaluating the performance of the Framework and revising targets and procedures as the Framework progresses, the five Annexes to the Implementation Plan of the GFCS and the Exemplars to the Implementation Plan (WMO-No. 1124);
- (2) The recommendations of the midterm review of the GFCS;
- (3) The PAC responses to the midterm review in PAC-8, and
- (4) Further guidance/requests received during IBCS MC-5 and PAC-9, which called for stronger monitoring and evaluation and strengthening of the GFCS as a framework,

Recognizing

- (1) The contributions of programmes – such as the USAID-funded Assessing Sustainability and Effectiveness of Climate Information Services in Africa, the Weather and Climate Information Services for Africa (WISER), funded by the UK Government's Department for International Development, and others – on climate service monitoring and evaluation mechanisms;
- (2) The growing number of National Frameworks for Climate Services and the need for robust metrics that demonstrate the value gained from investments and serve as a means to better coordinate development partner interventions to efficiently deliver results,

Decides:

- (1) To approve the concept for revising the monitoring and evaluation process and criteria for the GFCS (Annex 1) and terms of reference for a monitoring and evaluation consultant (Annex 2) to be hired to lead a consultative process and revise targets and indicators and establish the monitoring and evaluation framework for the GFCS;

- (2) To entrust the Monitoring and Evaluation Task Team/Working Group with the responsibility of working with the consultant, the GFCS Office and interested members and partners to update the monitoring and evaluation criteria and process.

Requests members to inform the GFCS Office of any additional monitoring and evaluation tools for NMHS capacity assessments and climate service provisions in order to add these to the list of existing resources to be reviewed.

Annex 1 to Decision 1 (IBCS MC-6)

Concept for revising the monitoring and evaluation process and criteria for the GFCS, including enhanced alignment with the Paris Agreement, sustainable development goals and the Sendai Framework

Background

The midterm review of the GFCS noted that it is very likely that many of the successes and activities that could be attributed to the GFCS are going unnoticed because there is no formal recording process or metric to track. At the fifth session of the Intergovernmental Board on Climate Services Management Committee (IBCS MC-5), held in Reading, United Kingdom, from 19 to 20 October 2017, the IBCS MC recommended that the focus of the GFCS as a framework should remain and be strengthened. The recommendations further noted that the language used to state future targets should be unambiguous so that reviews can be conducted with a minimum of conflict over how the meanings of the targets are interpreted.

The IBCS MC also requested that a roadmap be developed outlining improved linkages between the GFCS and major policy agenda (Paris Agreement, sustainable development goals, Sendai Framework) and their implementation mechanisms in order to identify opportunities to further link work plans with investment streams to better communicate the GFCS contributions and highlight investment needs and synergies to implement the frameworks at national levels, such as National Adaptation Plans NAPs and nationally determined contributions (NDCs).

Purpose

The purpose of this note and the accompanying terms of reference is to enable the Monitoring and Evaluation Task Team and the GFCS Office to work with a monitoring and evaluation expert to revisit the scope, purpose, expected outcomes, goals, targets, indicators, principles and priorities for action of the GFCS as set forward in the Implementation Plan of the Global Framework for Climate Services and the Priority Needs for the Operationalization of the Global Framework for Climate Services and to use these as a basis for formalizing a GFCS monitoring process, developing technical guidance for monitoring and reporting on progress in achieving the global targets of the GFCS and producing a chart of the GFCS 2020-2035 and monitoring and evaluation plan in line with that of the Sendai Framework for Disaster Risk Reduction and the Indicators and Monitoring Framework for the Sustainable Development Goals.

Indicators will be the backbone of monitoring progress towards operationalizing the GFCS at the local, national, regional and global levels. A sound indicator framework will leverage ongoing monitoring frameworks of partners, such as the United Nations Office for Disaster Risk Reduction and custodial partners of the Horizon 2030 monitoring. A

global objective baseline capacity assessment administered in partnership with WMO, USAID, DFID, the World Bank and other development partners will serve as the basis for adaptation strategies related to hydromet and may serve as a basis to standardize NDCs related to NMHSs for inclusion in NAPs. This baseline will enable and monitor progress towards targets. The National Frameworks for Climate Services (NFCSs) will serve to establish targets at the country level and track contributions by governments and partners to enhance efficiency and effectiveness in operationalizing climate services to benefit end users.

Implementation of the results-oriented monitoring and evaluation process will:

- Enhance organizational and developmental learning;
- Ensure informed decision-making;
- Support substantive accountability in GFCS repositioning; and
- Build the capacities of WMO's regional offices and key partners (PAC members, regional climate services focal points from partner organizations) in each of these areas and in monitoring and evaluating functions in general.

Learning from the past contributes to more informed decision-making and enhances the effectiveness of programme implementation.

Objectives

1. Track progress in the implementation of the GFCS at the global and regional levels (through regional climate centres) and NFCSs at the national level, attributable to governments, the GFCS Trust Fund, PAC members and other partners;
2. Demonstrate the value gained from investments; and
3. Better coordinate interventions to enhance joint action and efficiently deliver results.

Activities

- Develop clear unambiguous targets and indicators in a collaborative process in order to define concise and measurable actions and priorities in line with the guiding principles for the GFCS at the global, regional and national level.
- Review existing data intelligence and baseline tools to ensure fitness for purpose and interlinkages in order to efficiently and effectively measure progress and performance of the GFCS implementation/impact. This work will be conducted in coordination with the NFCS Commission for Climatology Working Group and the GFCS Monitoring and Evaluation Task Team.
- Coordinate with the Expert Team of the Commission for Climatology (CCL) on the Climate Services Toolkit and Downscaling, which is developing standards for climate service delivery, and the CCL Expert Team on NFCS to identify advanced analytics/business intelligence with the engagement of national government focal points (GFCS and NFCS focal points, NRC volunteers, United Nations partner agencies) and regional focal points (for example, the GFCS Intra-ACP Programme) and evaluate the optimized means for gathering data intelligence on GFCS implementation to ensure that activities remain on track to reach the GFCS objectives as described by the agreed targets.

- Connect to existing indicator frameworks and performance monitoring plans for the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Solutions Network – a global initiative for the United Nations, and the Paris Agreement.
- Evaluate connections to the GFCS knowledge management platform (GFCS HelpDesk – inventory of knowledge products) and an online community of practice (country profile database) or a user-driven collaboration platform consisting of members, experts and academics assisting each other. The knowledge management platform should establish common standards for the provision of climate services.
- Develop a concept for a global/regional platform on climate services to bring together the broader climate services community in order to share information, promote innovation and discuss priority matters. It is proposed that this leverage the existing ICCS, led by the CSP.

Resource requirements

- Option A: US\$ 75 000 consultant to initiate work to draft the indicators and deliverables;
- Option B: US\$ 125 000, includes trips to WMO Regional Association IV to sensitize the concept and gather feedback.

Process for the preparation of the GFCS targets, indicators and monitoring framework

1. The IBCS MC is to approve option A or option B under this framework and the terms of reference for the preparation of the GFCS targets, indicators and monitoring framework;
2. The GFCS Monitoring and Evaluation Task Team or Monitoring and Evaluation Working Group (proposed if the Monitoring and Evaluation Task Team is eliminated) recommends that work on the GFCS targets, indicators and monitoring framework should start as soon as possible following approval of the framework and terms of reference; and
3. A preliminary concept of the GFCS targets, indicators and monitoring and evaluation plan should be presented at the Eighteenth World Meteorological Congress (Cg-18). After Cg-18 approval, the implementation of the monitoring and evaluation plan will proceed according to the new plan.

Annex 2 to Decision 1 (IBCS MC-6)

Terms of reference for a consultant to prepare the targets and indicators and revise the monitoring and evaluation framework for the GFCS

Background/Preamble

In 2009, thirteen heads of states and governments, ministers and heads of delegations, representing more than 150 countries, 34 United Nations organizations and 36 governmental and non-governmental international organizations present at the Third

World Climate Conference (WCC–3) unanimously established the Global Framework for Climate Services (GFCS) to strengthen the production, availability, delivery and application of science-based climate predictions and services in support of decision-making in climate sensitive sectors.

Following the establishment of the GFCS, a task force of high-level independent advisors was appointed through an intergovernmental process to prepare a report, including recommendations, on the proposed elements of the GFCS and the next steps for its implementation. In the report, released in May 2011, the high-level taskforce stressed that: (i) climate is a critical factor in sustainable development and in the lives and livelihoods of all people and that climate extremes in particular cause loss of life and significant socioeconomic impacts worldwide, but overwhelmingly in developing countries; (ii) where they exist, needs-based climate services are extremely effective in helping countries, businesses, organizations and governments to manage their risks and take advantage of the opportunities associated with the climate, and (iii) there is a significant gap between the need for climate services and their current provision, particularly in places that need them the most: climate-vulnerable developing countries. Present capabilities to provide climate services do not exploit all that we know about climate, fall far short of meeting present and future needs and are not delivering their full potential benefits.

The Sixteenth Session of the WMO Congress (Geneva, 16 May to 3 June 2011) endorsed the broad thrust of the report of the high-level task force on the Global Framework for Climate Services (GFCS) and entrusted WMO with the responsibility of developing the implementation plan, terms of reference and rules of procedure for the Intergovernmental Board of the GFCS and its substructures based on the implementation plan.

In 2012, the Extraordinary Session of the WMO Congress established the Intergovernmental Board on Climate Services (IBCS) and adopted the GFCS Implementation Plan for subsequent consideration by the IBCS. In 2013, at its first session, the IBCS approved the GFCS Implementation Plan and called for its immediate execution. The Implementation Plan defined deliverables and targets to be realized over 2-, 6- and 10-year horizons; however, the targets/indicators, if present, were not always clearly defined.

The GFCS is envisaged as a set of national, regional and international arrangements that will coordinate activities and build on existing efforts to provide climate services that are truly focused on meeting user needs in the initial five priority areas of the GFCS (agriculture and food security, disaster risk reduction, energy, health, and water).

For the priority areas, we envision cultivating strategic partnerships with United Nations agencies to leverage their ongoing monitoring and evaluation mechanisms to track progress on climate service awareness and uptake.

Purpose, context and intended use

The purpose of revising the GFCS monitoring and evaluation process and criteria is to define clear targets and indicators and launch the data revolution required to track the progress of GFCS implementation, allowing corrections to be made as needed to improve impact. This process will also align the GFCS to other major policy agendas (sustainable development goals (SDGs), Sendai Framework, UNFCCC Paris Agreement). The consultant will review the existing tools for capturing data intelligence related to the GFCS and identify methods and synergies with existing monitoring schemes to enhance tracking of the progress of GFCS implementation. Developing unambiguous targets and indicators will improve coordination among the various development partners and contribute to achieving the goals and objectives of the GFCS.

Objectives

1. To develop clear, unambiguous targets and indicators for the GFCS through a consultative process with global, regional (through regional climate centres) and national level stakeholders, government officials, the GFCS Monitoring and Evaluation Task Force or Working Group, PAC members and other partners;
2. To establish monitoring and evaluation protocols to enable the GFCS Office to communicate progress as a result of investments; and
3. To define data intelligence tools and processes for GFCS implementation to enhance coordination and efficiently deliver results.

Activities

- Develop clear, unambiguous targets and indicators in a collaborative process in order to define concise and measureable actions and priorities in line with the guiding principles for the GFCS at the global, regional and national level.
- Review existing data intelligence and baseline tools to ensure fitness for purpose and interlinkages in order to efficiently and effectively measure progress and performance of the GFCS implementation/impact. This work will be conducted in coordination with the NFCS Commission for Climatology Working Group and the GFCS Monitoring and Evaluation Task Team/Working Group.
- Develop minimum standards for GFCS information and advanced analytics/business intelligence with the engagement of national government focal points (GFCS and NFCS focal points, NRC volunteers, United Nations partner agencies) and regional focal points (for example, the GFCS Intra-ACP Programme) and evaluate the optimized means for gathering data intelligence on GFCS implementation to ensure that it remains on track to reach GFCS objectives as described by the agreed targets.
- Connect to existing indicator frameworks and performance monitoring plans for the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Solutions Network – a global initiative for the United Nations, and the Paris Agreement.
- Evaluate connections to the GFCS knowledge management platform (GFCS HelpDesk – inventory of knowledge products) and an online community of practice (country profile database) or a user-driven collaboration platform consisting of members, experts and academics assisting each other. The knowledge management platform should establish common standards for the provision of climate services.
- Develop a concept for a global/regional platform on climate services to bring together the broader climate services community in order to share information, promote innovation and discuss priority matters. It is proposed that this leverage the existing ICCS, led by the CSP.

Scope of work

1. Review the GFCS Implementation Plan, its five annexes and its four exemplars (WMO-No. 1124) and review the Priority Needs for the Operationalization of the GFCS (2016-2018).
2. Review the following existing GFCS data intelligence tools:

- a. National-level mapping of climate services initiatives for countries with NFCSs, with the expected outcome of improving the national coordination of climate services portfolios among donors, implementing entities and national authorities in line with identified national priorities. The mapping tool assembles systematic information about national institutions responsible for meteorology, hydrology and early warning. It also includes key documents relating to national strategy (ministry-level), laws (government-level) and decrees (entity-level). The strategic documents relate to long-term, medium-term and capacity development and the NFCS action plan;
 - b. Objective metrics to assess National Meteorological Services in Africa (tool developed under the USAID Sustainable Climate Information Services programme);
 - c. DFID WISER monitoring and evaluation tools and mechanisms;
 - d. WMO country profile database.
3. Review the existing monitoring and reporting frameworks for the SDGs, Sendai Framework and Paris Agreement.
4. Facilitate dialogue with WMO technical commissions, regional associations and development partners (including PAC members) to develop unambiguous targets, indicators, priorities for actions at the global and national levels, and guiding principles for the GFCS (expert meeting).
5. Develop a monitoring and reporting framework for the GFCS that includes engagement of national government focal points (GFCS and NFCS focal points, NRC volunteers, United Nations partner agencies, national statistical offices) and regional focal points (for example, the GFCS Intra-ACP programme) and identifies the optimized means for gathering data intelligence on GFCS implementation.
6. Develop technical guidance for monitoring and reporting on progress in achieving the targets for the GFCS.
7. Develop an engagement/partnership strategy to leverage the monitoring and reporting frameworks for the SDGs, the Sendai Framework and the Paris Agreement to ensure that GFCS contributions to these elements are defined.
8. Connect the monitoring and reporting to the communication and outreach strategy, including the GFCS HelpDesk, the country profile database community of practice and the annual or biannual International Conference on Climate Services, as funding is available, to have an exchange on good practice and to provide updates on GFCS implementation.

Impact

Preparation of the targets, indicators and monitoring framework for the GFCS will help improve performance, better coordinate partners to achieve results and bolster communication about the accomplishments of the framework with respect to the broader adaptation agenda and its contributions to the Sendai Framework, the SDGs and the Paris Agreement. Functional indicators and the monitoring framework for the GFCS would be transformational.

Sustainability

Seek to engage a broad buy-in from Member States and partner agencies and clearly connect NFCs to national policy priorities.

Timelines

The consultant should provide the methodology report by early February 2019. There should be timelines for the various phases of the work, which should be started as soon as possible and with preliminary draft deliverables presented at the WMO Congress.

Deliverables:

The Consultant will present a draft report at the WMO Congress in June 2019. The draft final report, a maximum of 100 pages (with relevant annexes) will have the following sections:

- i. Inception report and roadmap to WMO Congress, June 2019, due three weeks after the report is signed;
- ii. Draft targets, indicators, priorities for actions and guiding principles (in line with the Sendai poster), June 2019;
- iii. Monitoring framework for the GFCS that outlines tools, minimum standards and metadata, statistics and analysis with the engagement of national government focal points and reporting frequency/quality assurance (due June 2019);
- iv. Engagement/partnership strategy to leverage the monitoring and reporting frameworks for the SDGs, Sendai Framework and Paris Agreement to ensure that GFCS contributions are captured (due June 2019);
- v. Monitoring and reporting/communication and outreach strategy, including the GFCS HelpDesk and country profile database (due June 2019.)

The draft report should be reviewed by the Monitoring and Evaluation Task Team. The GFCS Office should provide a response to the draft report before the final report is produced.

The final deliverables will be submitted after responding to written feedback from the GFCS Office (within one month). The report should be delivered in English and submitted to the GFCS Office. One or two presentations are envisioned on the interim and final deliverables.

Expected experience and qualifications*

- Master's degree in business administration, economics, finance, statistics, engineering or other relevant field;
- A minimum of nine years of experience in monitoring and evaluating results for a diverse portfolio of activities, including climate change projects and programmes, with proficiency in statistical analysis; highly desirable: two years of professional experience in business intelligence, with knowledge of social science research methods, statistical techniques, mathematics, rules-based logic, and their application to research analysis. Proficient in Microsoft Power BI and Excel or other spreadsheet software. Proficient in graphical and tabular data presentation;

- Experience with the logical framework, quantitative, qualitative and participatory approaches to monitoring;
 - Ability to draw out the information collected to deliver relevant knowledge-sharing products to stakeholders;
 - Strong organizational skills and ability to focus on details;
 - Ability to multi-task and meet strict deadlines;
 - Proven ability to work creatively and independently both in the field and in the office;
 - Knowledge of organizational policies;
 - Interpersonal communication skills;
 - Ability to define problems, collect data, establish facts and draw valid conclusions;
 - Ability to undertake the responsibilities mentioned above at the required level, with the following:
 - (a) Proven application of expertise;
 - (b) Ability to act as a team leader when required, with supervision from the team head;
 - (c) Team player with a proactive, can-do attitude.
 - Excellent written and oral communication skills in English are essential for this position. Knowledge of another United Nations language is an advantage. Verbal and written communication skills are essential, as is the ability to work with complex methodologies and to clearly communicate complex findings.
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APPENDIX. LIST OF PARTICIPANTS

1. Management Committee

Officers of the session

Laxman Singh RATHORE Acting Chair

Members

Brazil

Francisco DE ASSIS DINIZ Principal member

British Caribbean Territories

David FARRELL Principal member

Canada

David GRIMES Principal member

China

Mingmei LI Alternate

Gambia

Lamin Mai TOURAY Principal member

Germany

Gerhard ADRIAN Principal member

Karolin EICHLER Alternate

Tobias FUCHS Alternate

Indonesia

Ardhasena SOPAHELUWAKAN Principal member

Iran

Iman BABAEIAN Principal member

Italy

Franco DESIATO Principal member

Japan

Yasushi TAKATSUSHI Alternate

Yasushi MOCHIZUKI Alternate

Norway

Roar SKÅLIN Principal member

Astrid TVETERAAS Alternate

Peru

Grinia AVALOS ROLDÁN Alternate

Philippines

Flaviana HILARIO Principal member

Republic of Korea

Se-won KIM	Alternate
Aram BAEK	Alternate
Yeunsook CHOI	Alternate
Soyun JEONG	Alternate

Russian Federation

Alexander ZAITSEV	Alternate
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Senegal

Mariane DIOP-KANE	Alternate
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Sudan

Ahmed ABDELKARIM	Principal member
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Switzerland

Manuel KELLER	Alternate
Michiko HAMA	Alternate

Tunisia

Hedi AGREBI JAWADI	Principal member
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Turkey

Ali ÜMRAN KÖMÜSCÜ	Alternate
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United Kingdom of Great Britain and Northern Ireland

Chris HEWITT	Observer
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United States of America

Raymond "Wayne" HIGGINS	Principal member
Meredith MUTH	Alternate

2. Members and observers of the Partner Advisory Committee**EC**

Diago DE GUSMÃO-SORENSEN	PAC member
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ECMWF

Jean-Noël THÉPAUT	PAC member
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EUMETSAT

Joachim SAALMÜLLER	PAC member
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FAO

Selvaraju RAMASAMY	PAC member
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International Union of Geodesy and Geophysics (IUGG)

Roger PULWARTY	PAC member
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International Society of Biometeorology (ISB)

Pablo FERNÁNDEZ DE ARRÓYABE HERNÁEZ	Observer
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NRC

Benedicte Giæver	PAC member
Mina Weydahl	PAC member

UN Environment

Alexandre CALDAS

Observer

World Bank

Daniel KULL

PAC member

WHO

Joy SHUMAKE-GUILLEMOT

Observer

PRESIDENTS OF TECHNICAL COMMISSIONS**3. Presidents of technical commissions and regional associations**

Thomas PETERSON

Commission of Climatology

Guillermo NAVARRO

Regional Association III

4. WMO Secretariat

Filipe LÚCIO

Maxx DILLEY

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