WMO OMM
World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

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Anexos: 3 (disponibles en inglés solamente)

Asunto: Segundo Taller sobre el Servicio de Financiamiento de Observaciones Sistemáticas (SOFF) (25 a 26 de febrero de 2020, Offenbach, Alemania)

Estimado señor/Estimada señora:

Tengo el placer de invitarle al Taller sobre el Servicio de Financiamiento de Observaciones Sistemáticas (SOFF), que se celebrará los días 25 y 26 de febrero de 2020 en Offenbach (Alemania) bajo los auspicios del señor Gerhard Adrian, Presidente de la Organización Meteorológica Mundial (OMM).

Se espera que el SOFF ofrezca mecanismos innovadores de financiamiento para las observaciones sistemáticas que se realizan en los países en desarrollo en apoyo de la Red Mundial Básica de Observaciones (GBON). El SOFF ofrecerá a los países en desarrollo asistencia técnica y financiamiento equitativo, previsible y sostenible, en reconocimiento del valor mundial de sus observaciones.

El Taller tiene por objeto seguir promoviendo el concepto y el diseño del SOFF a través de una reflexión colectiva con asociados internacionales para el desarrollo y la financiación para el clima y con representantes del sector de los seguros.

El 10 de diciembre de 2019, durante el 25º período de sesiones de la Conferencia de las Partes en la Convención Marco de las Naciones Unidas sobre el Cambio Climático (CP 25), 12 organizaciones internacionales pusieron en marcha la Alianza para el Desarrollo Hidrometeorológico. Los miembros de la Alianza están aunando esfuerzos para reducir la brecha de capacidad en materia de pronósticos meteorológicos, sistemas de alerta temprana e información climática de calidad. La Alianza se basa en una declaración que recoge varios compromisos, entre otros, la creación del SOFF, que reconoce el valor económico de las observaciones como bien público mundial.

En anexo figuran la declaración de la Alianza, el resumen de la nota conceptual inicial sobre el SOFF y la versión preliminar de la nota conceptual sobre el Taller.

Habida cuenta de los limitados recursos financieros de la Organización, sería de gran ayuda si su institución pudiera sufragar total o parcialmente los gastos de su participación en el Taller. Si ello no fuera posible, la OMM consideraría la posibilidad de proporcionar ayuda financiera para este fin, si así se le solicita. Por razones administrativas, le ruego, por lo tanto, que confirme su participación, a más tardar el **24 de enero de 2020**, y que informe a la Secretaría si requerirá asistencia para financiar los gastos de viaje o las dietas, o ambos. En lo que se refiere a la cobertura del seguro de la OMM para las personas que no son funcionarios de la Organización, quisiera señalar a su atención lo siguiente:

A los presidentes de las Asociaciones Regionales

copia: señor Gerhard Adrian, Presidente de la OMM

"En el caso de las personas que no son funcionarios de la Organización pero han sido autorizadas a viajar a sus expensas y/o reciben dietas de ella, la OMM acepta una responsabilidad limitada en cuanto a la indemnización en caso de muerte, enfermedad o lesión imputable a la asistencia a reuniones o a la prestación de servicios en su nombre. Por tanto, esas personas son totalmente responsables de cualquier gasto resultante de circunstancias que no son atribuibles a la asistencia a reuniones o a la prestación de servicios en nombre de la Organización, y de la concertación de cualquier seguro de vida, enfermedad o de otro tipo que consideren conveniente."

Si desea obtener más información sobre el Taller, no dude en ponerse en contacto con el señor Markus Repnik, Director de la Oficina de Asociaciones para el Desarrollo.

Le agradecería que confirmase su asistencia a la reunión enviando un correo electrónico a la señora Serena Odianose (sodianose@wmo.int), funcionaria profesional subalterna.

Le saluda atentamente.

(P. Taalas)
Secretario General

ALLIANCE FOR HYDROMET DEVELOPMENT

Uniting our efforts to close the capacity gap on high-quality weather forecasts, early warning systems, and climate information as the foundation for resilient and sustainable development

Declaration

Madrid, 10 December 2019

We,

International development, humanitarian and financial institutions providing assistance to developing countries, jointly with the World Meteorological Organization and the World Bank, are herewith creating the Alliance for Hydromet Development.

As members of the Alliance, we are resolved to scale up and unite our efforts to achieve the common goal of closing the hydromet capacity gap on weather, climate, hydrological, and related environmental services by 2030. The Alliance aims to increase effectiveness and sustainability of hydromet investments through collective action.

We recognize with urgency the mounting impacts of climate change especially on the world's poorest and most vulnerable countries, and we note with concern that many developing countries are facing major capacity constraints to provide hydromet services as the foundation for resilient and sustainable development.

As members of the Alliance, we act within our respective resources and mandates and forge a collaborative partnership which recognizes and leverages our respective competencies and expertise.

We commit to the following actions to close the hydromet capacity gap by 2030:

Article 1: Improving systematic observations for better data

We acknowledge that the principles of the Paris Agreement, adopted by countries with which we work, include a call for cooperation and enhanced action on systematic observation of the climate system, and that any weather forecast, early warnings and climate analysis depend on continued access to a robust and reliable supply of observational data from the entire globe.

We note with urgency that today important data are missing from many developing countries, and that this lack of observational data significantly limits the ability to produce timely and accurate forecasts, early warnings, and climate prediction.

We commit to strengthening the capacity of National Meteorological and Hydrological Services for sustained operation of observational systems and data exchange that meet WMO standards for minimum monitoring coverage and reporting frequency.

We commit to seeking innovative ways to finance developing country surface-based observations, aiming at the creation of a Systematic Observations Financing Facility that recognizes the economic value of observations as a global public good.

Article 2: Enhancing support for better adaptation, mitigation and resilience

We acknowledge that around the world, individuals, communities and countries are facing the impacts of a changing climate and that the Paris Agreement, adopted by countries with which we work, calls to strengthen scientific knowledge on climate in a manner that informs climate services and supports decision making.

We note the extensive body of knowledge developed by the Intergovernmental Panel on Climate Change and other bodies, including the Global Framework for Climate Services, and the need to downscale this knowledge for science-based decision making at national and sub-national scales.

We commit to strengthening national capacity for science-based and effective mitigation action, including by promoting global greenhouse gas information systems which are based on atmospheric observations and analysis.

We commit to strengthening the capacity of National Meteorological and Hydrological Services and other relevant national institutions to provide meteorological, climatological and hydrological information for science-based national and sub-national adaptation planning and impact-based forecasting.

We commit to working towards common standards for climate-proofing investments in key sectors, built on best available science and identified sectoral needs.

Article 3: Strengthening early warning systems for improved disaster risk management

We recognize the goal of the Sendai Framework for Disaster Risk Reduction that many of the countries with which we work have adopted, to increase preparedness for response and recovery and the target to substantially increase availability of and access to multi-hazard early warning systems.

We commit to promoting coherent and science-based multi-hazard national early warning systems, comprising better risk information, forecasting capabilities, warning dissemination, and anticipatory response mechanisms, taking advantage of the Climate Risk and Early Warning Systems Initiative.

Article 4: Boosting investments for better effectiveness and sustainability

We embrace the principles of effective development cooperation, such as country ownership, focus on results, inclusive partnerships, and mutual accountability, reflected in the Addis Ababa Action Agenda on Financing for Development.

We commit to fostering programmatic approaches that go beyond individual projects, including systematically strengthening the Integrated Global Observing System as the backbone for better forecasts, early warning systems and climate information.

We commit to leveraging financial resources and expertise from the private sector by exploiting financially viable business models that provide sustainable solutions for modernizing hydromet infrastructure and enhancing services in developing countries.

We commit to underpinning development and climate finance with the best technical expertise, including by taking advantage of the Country Support Initiative and its expertise and knowledge from the WMO institutional network.

We commit to tracking progress on closing the capacity gap by 2030 through a joint regular Hydromet Gap flagship report, issued by the Alliance. The reports will include benchmarking of National Meteorological and Hydrological Services and facilitate knowledge generation, learning, and innovation.

Article 5: Accountability

As members of the Alliance, we hold ourselves accountable to act on our commitments.

Article 6: Membership

The Alliance for Hydromet Development represents the individual commitments of each of our institutions.

The actions of the Alliance to close the hydromet capacity gap are guided by the principles set out in various United Nations agreements, including the Sustainable Development Goals under the 2030 Agenda for Sustainable Development, the Paris Agreement under the United Nations Framework Convention on Climate Change and the Sendai Framework for Disaster Risk Reduction 2015-2030.

The Alliance is open for membership to all public international development, humanitarian and financial institutions providing assistance to strengthening developing countries' hydromet capacity.

The Alliance does not require additional funding from its members for its functioning.

Article 7: Secretariat

The World Meteorological Organization provides the Secretariat function for the Alliance that facilitates communication, knowledge sharing, and manages the registry of Alliance members.

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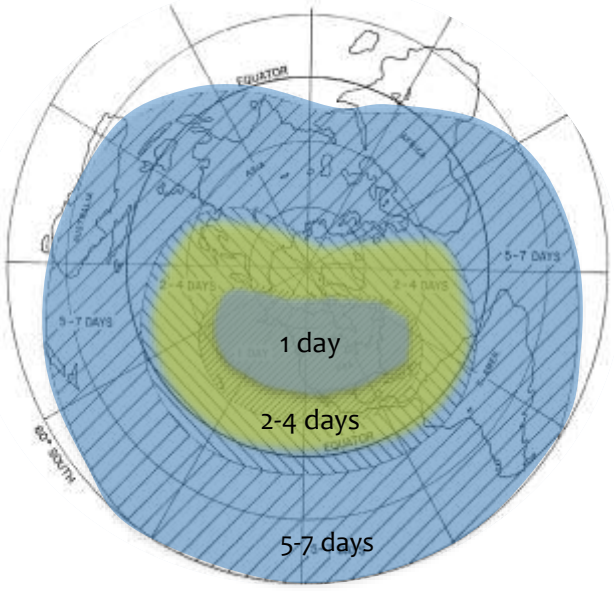
WEATHER CLIMATE WATER

Systematic Observations Financing Facility

Equitable, predictable, and sustainable finance for a foundational global public good

Initial concept
October 2019

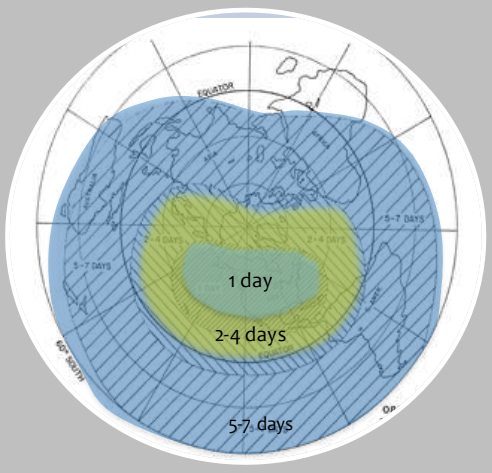


This initial concept note was developed by a team composed of colleagues from World Meteorological Organization, World Bank, Green Climate Fund, Climate Risk and Early Warning Systems Initiative Secretariat, Global Climate Observing System Secretariat, European Center for Medium-Range Weather Forecasts, and UK Met Office.

Local weather and climate observations: global importance, major gaps

Local observations are important for local purposes, but they also contribute to the global public good. They enable weather forecasts, early warnings and climate analysis across the globe.

Weather prediction and climate analysis know no boundaries



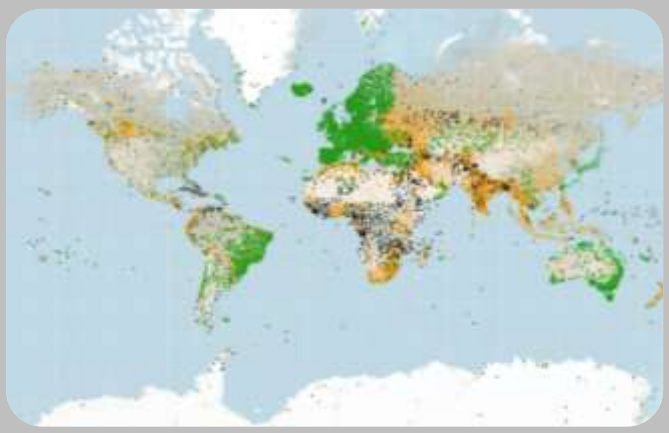
Lack of observations severely limits efforts to understand and predict weather and climate patterns, both locally and globally. Weather prediction beyond 5 days for any location requires observations from the whole globe. Therefore, it is in all countries' self-interest to ensure global coverage of observations for weather prediction and climate analysis.

Source: WIGOS, 2019.

Today, important observational data are missing in several parts of the world, particularly in developing countries (see box below). This lack of observational data significantly limits the quality of information used by governments and all stakeholders as the basis for important decisions such as those related to the reduction of the impact of weather and increased resilience to climate.

The current status of observations

The WMO Integrated Global Observing System (WIGOS) is operating a Data Quality Monitoring System. Observations data delivery to four global Numerical Weather Prediction (NWP) centres is monitored around the clock, in near real time. The visual below shows the current data availability. The inhomogeneity across the globe in both network density and reporting practice is striking. The large data voids (areas without any dots on the map), and the prevalence of dots shown in colors other than green reflect significant lost opportunities to provide better services.



Meeting data requirements

Observations exist but are not being shared internationally to the extent required for NWP

Lack of capacity to gather data or to share the observations

Source: WIGOS. 2019.

Innovating finance for a foundational global public good

The Paris Agreement identified the need to strengthen and enhance systematic observations in order to provide best available scientific knowledge for an effective response to the urgent threat of climate change.

However, today important observational data from many developing countries are missing. This observations data gap significantly limits the quality of information used by governments and all stakeholders across the globe as the basis for important decisions related to the reduction of the impact of severe weather and increased resilience to the changing climate.

Local observations are important for local purposes, but they also contribute to the global public good. They enable weather forecast, early warning and climate analysis across the globe. Thus, it is in all countries' self-interest to ensure global coverage of observations. However, there is a fundamental mismatch between today's developing country financing of observations and the value these observations create for the global public good.

There is no need to substantially increase finance for systematic observations, but there is a need to provide these resources in new ways through innovative finance that values the global public good that these observations provide, ensures coherence of hydromet development activities, provides long-term finance beyond time-bound projects, incentivizes country performance, and ensures sustainability of investments – beyond business as usual.

The Systematic Observations Financing Facility would provide equitable, predictable and sustainable finance and technical assistance to developing countries, prioritizing support to Africa, SIDS, and LDCs. It would cover foundational surface and upper-air observations and data exchange for which international agreements exist and developing countries have a quantified obligation to deliver.

The initial target of the facility is to achieve developing countries' compliance with the Global Basic Observing Network (GBON) by 2025. GBON defines the obligation for countries to implement a minimal set of surface-based observations for which international exchange of observational data will be mandatory in support of global NWP and climate analysis. At a later stage the facility could be expanded to encompass additional surface-based earth system observations.

The facility would foster a coordinated and integrated approach to financing a country's hydromet development, hence substantially contribute to development effectiveness. Ideally, all support for GBON compliance would be covered through technical assistance and funding provided by the facility. "Traditional" development and climate finance would focus on the other aspects required to close the hydromet development gap in developing countries.

For its operation, the facility would draw on implementation and advisory partners. Implementation partners would be the accredited entities to the Green Climate Fund, Adaptation Fund, and Global Environment Facility. They could draw on resources from the facility to complement their resources through integrated hydromet development projects. The WMO Country Support Initiative would provide advisory support.

The facility would support countries through two windows: the capacity development window and the performance window. The capacity development window would fund advisory services and required

investments to achieve GBON compliance. The performance window would provide performance-based payments to developing countries as an incentive for maintaining their observations in compliance with GBON obligations. Performance-based payments would be disbursed upon compliance confirmation by WMO technical authority.

The governance structure of the facility would be comprised of a trustee, a steering committee, a small secretariat and WMO technical authority. It is envisioned to establish the facility as a trust fund, to be hosted by a development or climate finance institution. The steering committee would serve as the decision-making body for the facility and oversee the overall activities. The secretariat of the facility would support the work of the steering committee, and it would be hosted by WMO in Geneva. WMO would also play the independent technical authority function for the facility.

The financing needs to achieve GBON compliance by 2025 correspond to $750 million. Once this target is achieved, funding requirements to maintain GBON compliance would be substantially lower.

At COP25 in December 2019, the Alliance for Hydromet Development is going to be launched, and the creation of the facility is envisioned to become a priority action for the Alliance in 2020. The Alliance for Hydromet Development aims at scaling up the efforts of major development and climate finance partners to close the capacity gap on high-quality weather forecasts, early warning systems, and climate information through collective action.

It is envisioned to announce the facility with initial contributions pledged at COP 26 in December 2020.

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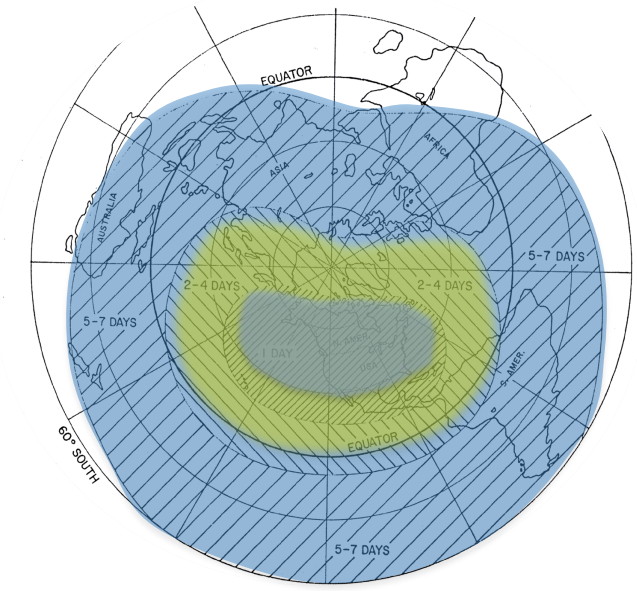
WEATHER CLIMATE WATER

Systematic Observations Financing Facility (SOFF)

Equitable, predictable, and sustainable finance
for a foundational global public good

Further advancing SOFF concept and design collaborative thinking workshop

25-26 February 2020
Offenbach, Germany



1. Context

Problem statement

- **There is a fundamental mismatch between today's country-based financing of basic observations and the value these observations create for the global community**. Today, the provision of systematic observations is considered a purely national obligation. Developing countries are thus in principle expected to fully fund their own observing systems. Countries may receive "aid" in terms of project funding from development partners, but this funding is time-limited, typically aimed at capital investment rather than operating costs, and does not recognize the global value creation enabled by observational data from developing countries.

- **Essential surface-based observational data are missing in several parts of the world, particularly in developing countries.** Numerical Weather Prediction (NWP) is the basis on which all weather and climate services are built. Like an engine needs fuel, NWP requires a constant supply of observations from around the world to ensure accurate forecast and climate products. This lack of observational data significantly limits the quality of information used by governments and all stakeholders as the basis for vital decisions such as those related to the reduction of the impact of weather and increased resilience to climate change. Hence, the Paris Agreement recognizes the need to strengthen and enhance systematic observations.

Recognizing the need for innovating finance for basic observations

- **In June 2019, three major development and climate finance partners (World Bank, African Development Bank, Green Climate Fund) joined the 18th World Meteorological Congress** high-level events on development partnerships. A common understanding emerged that there is a need to fundamentally change the way developing country basic observations are being funded, taking advantage of the resolution adopted by Congress to establish the Global Basic Observing Network (GBON)[1].

- **In July 2019, a first workshop was held in Geneva to map out elements of an initial concept for an innovative Systematic Observations Financing Facility.** About 30 colleagues from the World Meteorological Organization, World Bank, Green Climate Fund, Climate Risk and Early Warning Systems Initiative Secretariat, Global Climate Observing System Secretariat, European Center for Medium-Range Weather Forecasts, and UK Met Office came together for this joint thinking workshop.

- **In September 2019, the outcomes of this workshop were translated into the initial SOFF concept note**.

- **December 2019 SBSTA conclusions at COP25**: The fifty-first session of the Subsidiary Body for Scientific and Technological Advice (SBSTA) to the United Nations Framework Convention on Climate Change (UNFCCC) recognized the development of the Global Basic Observing Network by WMO and re-emphasized the need for sustained funding to meet the essential needs for global climate observation under the Convention.

[1] GBON aims to improve the global availability of the most essential surface-based data by defining the obligation for countries to implement a minimal set of surface-based observations for which international exchange of observational data will be mandatory.

- **December 2019 Alliance for Hydromet Development launch at COP25:** 12 international organizations[2] launched as founding members the Alliance for Hydromet Development. The Alliance unites efforts of these organizations to close the capacity gap on high-quality weather forecasts, early warning systems, and climate information. The Alliance is founded on a declaration with several commitments, including aiming at the creation of the SOFF that recognizes the economic value of observations as a global public good.

WMO study group on data issues and policies

- **Under the WMO Commission for Infrastructures, a study group on data issues and policies is being established**. The group will have its first meeting from 11 to 13 February 2020 in Geneva. It is composed of about 20 experts, among them several from private sector - HMEI, IBM, ECOMET, GeoOptics.

The Systematic Observations Financing Facility

- **The Facility is envisaged to ensure provision of basic systematic observations as a global public good**
  - by providing equitable, predictable, sustainable, and performance-based finance as well as technical assistance to developing countries for the provision of foundational observational data, based on internationally agreed standards that can be quantified and independently verified
  - to support achievement of GBON compliance by 2025 as the backbone of global weather forecasts and climate information products.
- **Second SOFF workshop to further advance the concept and design.** A second workshop, hosted by the WMO President, will take place 25-26 February 2020 in Offenbach, Germany. This note presents the workshop's objectives, guiding questions, moderators, invited participants, logistics, and background material.

2. Objectives and guiding questions

Objectives

- **Further advance concept and design of the Systematic Observations Financing Facility** that makes the business case for financing to be explored with public and private sector investment and funding sources.
- **Establish a small multi-partner team who will have the mandate** to further engage with external stakeholders including on financing options.

[2] Adaptation Fund, African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Global Environment Facility, Green Climate Fund, Islamic Development Bank, United Nations Development Programme, United Nations Environment Programme, World Bank, World Food Programme, World Meteorological Organization

Guiding questions

- **Socioeconomic benefits: What assumptions would be appropriate for quantifying the socioeconomic benefits of the SOFF**? Assuming a GBON-compliant world that fully leverages improvements in observational data availability and forecasting, what gains in public welfare and economic productivity (from basic weather forecasts and early warnings to production of sector-tailored products) could be safely attributed to the SOFF?

- **GBON financing needs: What are the financial requirements to achieve GBON compliance by 2025?** How much does it cost (CAPEX and OPEX) to develop and maintain a sustainable and fully operational GBON?

- **Private sector / insurance sector business case**: **What are the benefits of SOFF to the private sector's operations and investments, in particular insurance industry?** What could be potential insurance industry contributions to SOFF?

- **Governance**: **How to further structure the facility?**

- **Next steps**: **What is needed so that we can announce the SOFF at COP26 in December 2020,** backed by soft commitments of initial funders?

3. Host and moderators

Host

- Gerhard Adrian WMO President; President and Chairman of the Executive Board Deutscher Wetterdienst

Co-moderators

- Markus Repnik WMO Director Development Partnerships

- John Firth CEO and co-founder Acclimatise Group Ltd

4. Participants

Principles

- **Maintain** organizations that participated in the first workshop and contributed to the development of the SOFF initial concept note

- **Expand and invite a**dditional organizations, in particular development and climate finance partners as well as insurance sector representatives

- **Limit** number of participants per organizations; max 30 workshop participants

Invited organizations / participants

- **Alliance for Hydromet Development**
  - All Alliance founding members are invited; World Bank and Green Climate Fund participated in the first workshop

- **Insurance sector organizations**
  - InsuReslience
  - Insurance Development Forum
  - African Risk Capacity
  - Weather Risk Management Association

- **Potential champion countries**
  - **Luxembourg** (CREWS steering Committee chair, green finance hub in Europe)
  - **UK** (CREWS contributing partner, host COP26, REAP initiative)

- **Additional organizations**
  - European Center for Medium-Range Weather Forecasts (participated in the first workshop)
  - CREWS Secretariat (participated in the first workshop)
  - Copernicus (participated in the first workshop)
  - Climate Policy Initiative
  - Climate Investment Funds
  - Global Center on Adaptation
  - Deon Terreblanche (invited expert)
  - Rob Varley (invited expert, participated in the first workshop)

- **WMO Presidents Regional Associations**

- **WMO Secretariat**
  - Wenjian Zhang, Assistant Secretary General
  - Anthony Rea, Director Infrastructure Department
  - Lars-Peter Riishojgaard, Deputy Director Infrastructure Department (participated in the first workshop)
  - Dimitar Ivanov, Director Public-Private-Engagement
  - Lorena Santamaria, Development Partnerships Office, participated in the first workshop)
  - Serena Odianose, Development Partnerships Office

5. Draft agenda

- To be shared shortly

6. Logistics

- see **information note** attached

7. Background material

- GBON video
- **SOFF initial concept note**
- **First SOFF workshop outcome document**
- SOFF initial concept summary
- SOFF website
- Alliance for Hydromet Development website
- WMO Country Support Initiative website