

Second Potential Funders' Forum for the Systematic Observations Financing Facility

Virtual Meeting
28 June 2021

Summary of the Chairperson



SOFF

Systematic Observations
Financing Facility

Weather and climate information for the global public good

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Summary of the Chairperson

I. Introduction

1. The second meeting of the forum of potential funders for the Systematic Observations Financing Facility (SOFF) was convened virtually by the World Meteorological Organization (WMO) on 28 June 2021, 12:00-15:00h CEST.
2. Delegations from 28 potential funders attended the meeting, 26 country delegations and one delegation each from the European Commission and the Nordic Development Fund. 22 multilateral and partner organizations participated as observers, including members of the Alliance for Hydromet Development. The meeting was co-hosted by the WMO Secretary-General and the WMO First Vice President. WMO Presidents of Regional Associations, WMO management and WMO staff joined the meeting, and Johannes Linn, SOFF Global Facilitator, chaired the meeting. (See list of participants in Annex I.)
3. The Chairperson welcomed all participants and noted that the purpose of the meeting was fourfold: first, in response to feedback from delegates at the first funders' forum, for the SOFF team to present in greater detail key aspects of the SOFF proposal, the details of which were contained in the report distributed in advance of the meeting (see a link to report in Annex II); second, to have the delegations share their comments and questions on the proposal, to allow the SOFF team to further develop the initiative for maximum effectiveness; third, for participants to hear the statements of support from important stakeholder representatives; and, finally, to consider the way forward and next steps in preparing for the launch of SOFF envisioned for COP26 in November 2021 and beyond.
4. The WMO Secretary-General, Professor Petteri Taalas, and the WMO First Vice President, Professor Celeste Saulo provided welcome remarks. They highlighted the progress with the development of SOFF since the First Funders' Forum in March, and welcomed its new level of maturity. The Secretary-General announced that UNDP and UNEP have decided to join WMO as co-founders of SOFF. He also highlighted the recent developments in terms of the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA) session that further recognized the importance of Global Basic Observing Network (GBON) and SOFF and the successful outcomes of the recent WMO Executive Council that endorsed a unified policy on the international exchange of Earth system data, the GBON and SOFF for adoption by the Extraordinary World Meteorological Congress in October 2021.
5. The First Vice President noted the importance of SOFF for the Least Developed Countries (LDCs) and Small Island Developing States (SIDS) and highlighted the uniqueness of the

momentum for WMO to foster global collaboration through the approval of the GBON and its implementation. She invited participants to support the resource mobilization efforts of the SOFF in order to accelerate GBON implementation in the countries with high needs and insisted on the importance of capacity building in such countries to ensure the sustainability of the international exchange of observations.

6. Participants were addressed by the Prime Minister of Jamaica, His Excellency Mr. Andrew Holness; Lord Nicholas Stern, Professor of the London School of Economics; Ms. Mari Pangestu, Managing Director of the World Bank; and Ms. Patricia Espinosa, UNFCCC Executive Secretary. In their pre-recorded statements they stressed, among others, the foundational economic importance of basic weather and climate observations and expressed strong support for the creation of the SOFF (see link to statements in Annex II).
7. The agenda for the meeting was structured along four substantive segments dealing, respectively, with (a) the meteorological value chain and the role of observations; (b) SOFF value proposition and institutional arrangements; (c) SOFF operational framework; and (d) roadmap to COP26 and beyond (see Annex III).

II. Discussion

8. Building on the feedback and progress since the First Funders' Forum, WMO staff stressed the following aspects in their presentations:
 - i. *On the role of observations*: The important role of observations in the meteorological value chain, and the need to tackle the observing problem globally; the importance of global modeling and observations for climate monitoring, climate prediction and climate adaptation; the role of global modeling and local observations in underpinning local downscaled weather and climate information; and the importance of observations for verification – weather and climate data are unverifiable and therefore unreliable in areas with few or no observations.
 - ii. *On the persistent gaps in observational data coverage*: the lack of local financial means in LDCs and SIDS to install, operate and maintain the networks, which explains the inadequacy of local observing networks; and term-limited, single-country hydromet development projects that generally do not lead to sustained improvements in observing capabilities.
 - iii. *On the SOFF value proposition and institutional arrangements*: the unique and innovative combination of ten key features in the design of SOFF; SOFF as a “UN Coalition Fund”, a UN multilateral partner trust fund (UNMPTF) co-created by WMO, UNEP and UNDP; creation of an institutional structure that provides for well-defined complementary roles of key partners and stakeholders, and for effective linkages from the upstream engagement of SOFF in support of the meteorological value chain to the downstream activities of other partners; and the opportunity for funders to contribute through SOFF (including through their national meteorological services as SOFF peer advisors) to

ensuring that the observations gap is sustainably closed and that thus their investments in other parts of the value chain bear fruit.

- iv. *On the operational framework*: a detailed exposition of the novel operational features of SOFF that constitute the core of SOFF unique value proposition, including independent technical verification of data exchange results, integrated coherent investments, long-term results-based financing and unequivocal results and impact measuring; and additional information on SOFF's sustainability, risks, and learning and reporting.
 - v. *On the roadmap to COP26 and beyond*: an update on consultations with stakeholders to date (recipients, partners, and the private sector); the additional steps to be taken in the leadup to COP26; the tentative agenda for the third SOFF Funders' Forum in the week of September 27, 2021; and an outline of the steps to be taken to make SOFF operational by mid-2022.
9. Nine potential funder delegates and three observers intervened. Participants welcomed the quality of the report and of the presentations, which provided fuller and more detailed information than available at the first forum. They noted the importance of improvements in weather and climate observations and expressed their interest in SOFF. In the words of one potential funder representative: "We need to work hard to increase our investment and optimize current investment from donors. It is the real value of money." Delegates provided valuable comments, questions and suggestions to further strengthen the SOFF concept and design, focused principally on three issues: the scope of SOFF; the sustainability of observing systems assets and of SOFF; and how to optimize SOFF engagement with its partners in support of the entire meteorological value chain. WMO staff assured delegates that all comments and questions will be addressed in the report to be prepared for the third SOFF Funders' Forums as well as one-on-one engagements as part of the SOFF consultation process from now to COP26.

The Scope of SOFF

10. Some delegates stressed that the value-added of SOFF needs to be presented not only in terms of the improvement in sustainably shared observations that it aims to bring about, but also in terms of the socio-economic benefits it will generate, e.g., improved livelihoods for people, improved access to energy, better health, higher agricultural productivity and improved warnings for impending disasters. WMO staff noted that this point was at the core of the report presented at the first SOFF Funders' Forum and of a report by the World Bank, WMO and the UK Met Office.¹ The draft SOFF initial funders report to be prepared for the third Funders' Forum in late September 2021 will cover this aspect thoroughly.
11. Another delegate asked whether the scope of GBON (Global Basic Observations Network) and SOFF could be broadened to cover more aspects of an "Earth System" approach, by including hydrological and ocean observations. WMO staff responded that there is a lot of

¹ <https://openknowledge.worldbank.org/bitstream/handle/10986/35178/The-Value-of-Surface-based-Meteorological-Observation-Data.pdf?sequence=1&isAllowed=y>

interest among the WMO Members in expanding GBON beyond its current focus on weather/climate observations. However, the strategy is to first seek approval by the World Meteorological Congress in October 2021 of the GBON technical specification as currently designed, before engaging in any expansion of it. Early candidates for expansion are likely to be greenhouse gas monitoring in support of the Paris agreement, and ocean data in support of climate monitoring, prediction and projection. A key characteristic of GBON is the emphasis on an internationally agreed global observing network design with mandatory data exchange. SOFF is being designed with an open architecture, in other words, as GBON expands to other observations domains so would SOFF.

12. A delegate suggested that agreement on a “joint investment standard” is an important WMO objective and should also be considered in the context of SOFF and requested to clarify the relationship between WMO-related standards – the global observing system, the WMO Integrated Global Observing System (WIGOS), the WMO Data Quality Management System (WDQMS) – and GBON. WMO staff clarified that WIGOS is the modern extension of the Global Observation System (GOS) to encompass additional disciplines and domains, e.g. hydrology, atmospheric composition, etc, and GBON is under the WIGOS umbrella dedicated specifically to serving global numerical weather prediction (NWP) with the most important surface-based observations. GBON is defined by a set of provisions included in the WIGOS regulatory material, which include mandatory performance specifications on which variables to be measured, on horizontal and temporal resolution, and on international exchange of observations. WDQMS is the system used for routine monitoring of real-time data delivery of a set of core observational data to global NWP and will be used to monitor compliance with GBON requirements. WMO Staff noted that SOFF will ensure complementarities with ongoing activities, while bridging the gap between observing systems, last mile investments and climate adaptation and resilient development. The SOFF institutional set up is being designed to ensure the participation of diverse actors of the value chain in the decision-making processes.
13. Representatives of potential beneficiary countries emphasized that insufficient observations to monitor and predict weather and climate impacts are currently imposing high costs on various economic sectors. They noted further that such observations would help to make better-informed decisions related to energy and water consumption, farming and the use of waterways. Beneficiary countries also highlighted the importance of long-term sustainability of financing, enhancement of cooperation and data exchange, and the strengthening of national capacities as prominent features of the SOFF that will support countries towards a more resilient development. The AOSIS delegate highlighted the need to reconsider the SIDS classification to include the entire group of countries currently listed in the broader classification of SIDS and not only as OECD ODA recipients. AOSIS also emphasized the importance of considering direct access entities in SOFF implementation. WMO staff reiterated that regional and national organizations will have the opportunity to partner with SOFF implementing entities to support GBON local implementation and took note of the eligibility element to be addressed in consultation with potential funders.

14. A participant from the private sector stressed the importance of having a public-private partnership framework in place to facilitate the operationalization of the SOFF. Given that the instrumentation, technology, systems and services are frequently provided by the private sector, there is a lot of expertise that the private sector could contribute to the success of SOFF during its operational phase.

Sustainability

15. Delegates raised various questions related to the sustainability of SOFF:
- i. Would a greater focus on compliance rather than on investments to close the GBON gap be appropriate, considering that other agencies already support investments in observational capacity?
 - ii. How would standardization of equipment contribute to sustainability?
 - iii. With retroactive results based financing (RBF) during the compliance phase, how would one ensure that meteorological services have the financial means to maintain their assets *ex ante*?
 - iv. How would SOFF finance the compliance phase?
 - v. How can SOFF ensure country ownership?
16. WMO staff provided the following clarification on the several questions:
- i. Support for compliance would be offered already during the investment phase for those countries and stations that are compliant. SOFF support for investment will ensure that GBON standards are actually achieved across all relevant countries rather than being pursued in a haphazard manner by the countries and their external financiers. SOFF financing of observations investment would allow other funders to concentrate on downstream requirements in the meteorological value chain. Integration of SOFF investments as components of larger hydromet projects will ensure the appropriate overall balance between support for observations and other investment requirements.
 - ii. SOFF support through a single intervention for rehabilitation and new installation of missing observation stations is justified also by the need to ensure standardization of equipment at the national and the regional/sub-regional level. A major driver of maintenance costs is a lack of homogeneity of observing equipment since technicians need to be trained in multiple equipment types and carry multiple spares for different types of equipment. WMO will not mandate specific equipment but is working with Hydro-Meteorological Equipment Industry (HMEI) to establish common tender specifications to be used by SOFF recipients in purchasing equipment.
 - iii. Purely retroactive RBF could indeed result in financing constraints to operate and maintain the observing systems. Therefore, the SOFF team will explore how “pump-priming” funding at the outset of the investments phase could be designed.

- iv. As noted in the first SOFF Funders' Forum, experience has demonstrated that continued funding support for the compliance phase is needed to ensure the sustainability of basic observing systems in LDCs and SIDS. This can be justified on the grounds that beneficiary countries produce valuable global public goods that they could not be expected to fund on their own, given their economic and fiscal situation. The long-term support is built on the common experience by all members of the Alliance for Hydromet Development and several other development partners that in the past many observing systems have not continued operating after the end of the investment project. SOFF envisions two complementary areas of work to ensure sustainability: 1) a standard replenishment approach to ensure predictable, long-term financial and technical support to contribute to operation and maintenance of the observing systems; and 2) ensuring that SOFF investments are embedded into broader downstream early warnings, disaster risk management and adaptation projects aiming at developing countries' capacity to make effective use of the improved weather and climate prediction products. This will allow governments and stakeholders to see the benefits and value of improved observations and therefore increase country ownership. For the replenishment efforts, the required funds would have to come from the donor community or eventually from other mechanisms of financing global public goods.

Optimizing SOFF Engagement

17. Delegates stressed the importance of ensuring that SOFF support for improving observations does not take place in isolation from the activities necessary in the downstream parts of the meteorological value chain, but be fully integrated and balanced to optimize the investments across the whole value chain for maximum impact. Delegates further noted the importance of GBON compliance globally, and its role in helping guiding investments, which requires close cooperation and coordination among the international agencies providing support to ensure that their activities are complementary and mutually supportive.
18. WMO staff explained that the SOFF's institutional setup and operational modalities are designed precisely to achieve these objectives. Key features are (a) a carefully tailored integration of key partners and stakeholders into the institutional structure of the SOFF, with special attention to those of high relevance for last mile impact such as CREWS and REAP; (b) a comprehensive analysis of a country's needs across the entire meteorological value chain as part of the readiness phase; and (c) integration of SOFF-funded investments into broader hydromet/adaptation projects of the SOFF implementing entities.

III. Closing

19. In his closing statement, the WMO Secretary-General thanked all participants for their interest and statements of support, and for their very helpful questions and comments. He assured delegates that the SOFF team will reflect carefully on the issues raised and address them in the reports to be submitted for future meetings.

20. The Chairperson delivered a provisional summary of the event. In closing, he noted that with COP26 only a few months away, it is now time for potential funder delegates to take the message back to capitals that SOFF is a foundational initiative that deserves financial support in the interest of the recipient countries and the global community. The SOFF team and the Chair stand ready to support delegates in making this case in the coming weeks and months.

Annex I. Participant list

| | | |
|-------------------------|--------------------------------|----------------------|
| Petteri Taalas | WMO | Secretary General |
| Celeste Saulo | WMO | First Vice President |
| Johannes Linn | WMO/SOFF Global Facilitator | Chairperson |
| Lars Peter Riishojgaard | WMO | Presenter |
| Markus Repnik | WMO | Presenter |
| Laura Tuck | WMO/SOFF Global Facilitator | Presenter |
| Lorena Santamaria-Rojas | WMO | Presenter |
| Ruxandra Voinov | Australia | Potential Funder |
| Claire Clement | Australia | Potential Funder |
| Michael Staudinger | Austria | Potential Funder |
| Wolfgang Lapuh | Austria | Potential Funder |
| Erwin Kuenzi | Austria | Potential Funder |
| Jenifer Collette | Canada | Potential Funder |
| Shannon deGraaf | Canada | Potential Funder |
| Xianghua Xu | China | Potential Funder |
| Xiaoping Hu | China | Potential Funder |
| Wanzhi Xu | China | Potential Funder |
| Kreso Pandzic | Croatia | Potential Funder |
| Simon Svith | Denmark | Potential Funder |
| Jakob Haugaard | Denmark | Potential Funder |
| Valentina Villoria | European Commission | Potential Funder |
| Jochen Luther | European Commission | Potential Funder |
| Outi Myatt-Hirvonen | Finland | Potential Funder |
| Marie-Pierre Meganck | France | Potential Funder |
| Patrick Benichou | France | Potential Funder |
| Isabelle Bénet Borretti | France | Potential Funder |
| Laurence Frachon | France | Potential Funder |

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|-----------------------------------|-------------------------|------------------|
| Philipp von Carnap-Bornheim | Germany | Potential Funder |
| Britta Horstmann | Germany | Potential Funder |
| Malte Uphoff | Germany | Potential Funder |
| Cristina Biino | Italy | Potential Funder |
| Adriano Raspanti | Italy | Potential Funder |
| Akira Okagaki | Japan | Potential Funder |
| Byoungcheol Kim | Korea | Potential Funder |
| Sungwha Son | Korea | Potential Funder |
| Insun Kim | Korea | Potential Funder |
| Andrew Ferrone | Luxembourg | Potential Funder |
| James Lunny | New Zealand | Potential Funder |
| Kevin Alder | New Zealand | Potential Funder |
| Aage Jørgensen | Nordic Development Fund | Potential Funder |
| Kristin Dypedokk | Norway | Potential Funder |
| Roar Skalin | Norway | Potential Funder |
| Inês Moura Martins | Portugal | Potential Funder |
| Abdulla Mohammed Abdulla Almannai | Qatar | Potential Funder |
| Elena Mateescu | Romania | Potential Funder |
| Ayman Ghulam | Saudi Arabia | Potential Funder |
| Fernando Belda | Spain | Potential Funder |
| Ilmar Karro | Sweden | Potential Funder |
| Sanne van der Mijl | The Netherlands | Potential Funder |
| Rubert Konijn | The Netherlands | Potential Funder |
| Ozan Çakır | Turkey | Potential Funder |
| Murat Altinyollar | Turkey | Potential Funder |
| Mohamed Abdulla Alebri | UAE | Potential Funder |
| Katherine Marsden | UK | Potential Funder |
| Nyree Pinder | UK | Potential Funder |
| Helen Bye | UK | Potential Funder |
| Karen McCourt | UK | Potential Funder |

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|--------------------------------|--------------------------|------------------|
| Fred Branski | USA | Potential Funder |
| Arghya Sinha Roy | ADB* | Observer |
| AlHamndou Dorsouma | AfDB* | Observer |
| James Kinyangi | AfDB* | Observer |
| Mahamat Abakar Assouyouiti | AF* | Observer |
| Loreta Rufo | CIF* | Observer |
| Xianfu Lu | CIF* | Observer |
| Urvaksh D. Patel | GCF* | Observer |
| Joseph Intsiful | GCF* | Observer |
| Benjamin Larroquette | UNDP* | Observer |
| Jochem Zoetelief | UNEP* | Observer |
| Vladimir Tsirkunov | WB* | Observer |
| Montserrat Barroso | WFP* | Observer |
| Maria Lourdes Kathleen Macasil | CREWS | Observer |
| Pierre Pascal Bardoux-Chesneau | UNPTF | Observer |
| Fabio Venuti | ECMWF | Observer |
| Umberto Modigliani | ECMWF | Observer |
| Hafiz Lawal | GCA | Observer |
| Astrid Zwick | Insuresilience | Observer |
| Ben Webster | REAP | Observer |
| Phento Tshering | LDC Group | Observer |
| Sonam Zangmo | LDC Group | Observer |
| Tashi Chuki | LDC Group | Observer |
| Brianna Craft | LDC Group | Observer |
| Lia Nicholson | AOSIS | Observer |
| Jim Anderson | HMEI | Observer |
| Vincent Gabaglio | EUMETSAT | Observer |
| Leonardo Hekimian | Argentina | Observer |
| Pablo Loyber | Argentina | Observer |
| Andrés Felipe Marmolejo Egred | Regional Association III | Observer |
| Evan Thompson | Regional Association IV | Observer |

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|-------------------------|---------------------------------|
| Amos Makarau | WMO |
| Annick Champagne | WMO |
| Anthony Rea | WMO |
| Bernard Gomez | WMO |
| Bing Liu | WMO |
| Clare Nullis | WMO |
| Claudia Rubart | WMO |
| Ede Ijjasz | WMO |
| Filipe Lúcio | WMO |
| Georgina Kahama | WMO |
| Henry Taiki | WMO |
| Hesham Abdel Ghany | WMO |
| Jalil Housni | WMO |
| Julian Baez Benitez | WMO |
| Mario Peiró Espí | WMO |
| Mary Power | WMO |
| Paul Egerton | WMO |
| Rodney Martinez Guingla | WMO |
| Rose Devillier | WMO |
| Serena Odianose | WMO |
| Soyhung Na | WMO |
| Tessa Tafua | WMO |
| Wenjian Zhang | WMO Assistant Secretary-General |
| Yinka R. Adebayo | WMO |

* Member of Alliance for Hydromet Development.

Annex II – Background information for Second Potential Funders’ Forum

- Report for the SOFF Second Potential Funders’ Forum: https://library.wmo.int/index.php?lvl=notice_display&id=21862#.YNyNq-gzYuV
- Second Potential Funders’ Forum slide presentations: <https://public.wmo.int/en/our-mandate/how-we-do-it/development-partnerships/Innovating-finance/SOFF-funders-forum>
- SOFF statements of support: [SOFF Support Statements - Alliance for Hydromet Development \(alliancehydromet.org\)](#)
- More information on SOFF can be found at: [Systematic Observations Financing Facility - Alliance for Hydromet Development \(alliancehydromet.org\)](#)

Annex III. Agenda of Second Potential Funders' Forum

| Time | Agenda Item | Description |
|---------|--|--|
| 25 mins | 1. Opening a. Welcome b. Statement c. Agenda | Welcome: Secretary General, WMO First Vice President, WMO Video Statement: H.E. Andrew Holness Jamaica Prime Minister Agenda: Discussion and approval |
| 35 mins | 2. The meteorological value chain and the role of observations a. Presentation b. Discussion c. Statements | Chapters 1 and 2 of the Report Video statements: Lord Nicholas Stern, Professor of Economics, LSE and former Chief Economist of the World Bank. Dr. Mari Pangestu, World Bank Managing Director |
| 45 mins | 3. SOFF value proposition and institutional arrangements a. Presentation b. Discussion | Chapters 3 and 4 of the Report |
| 45 mins | 4. SOFF operational framework a. Presentation b. Discussion | Chapter 5 of the Report |
| 20 mins | 5. Road to COP 26 and beyond a. Presentation b. Statement c. Discussion | Chapter 6 of the Report Video statement: Patricia Espinosa, UNFCCC Executive Secretary |
| 10 mins | 6. Closing | Closing statement Secretary General, WMO Summation by Chair |