First Funders’ Forum

24 March 2021
Virtual meeting
Systematic Observations Financing Facility
First Funders’ Forum

Agenda item 2 - SOFF rationale

Anthony Rea, Director Infrastructure Department
Lars Peter Riishojgaard, Director Earth System Branch
Hydromet – at the core of bold and effective action

<table>
<thead>
<tr>
<th>Paris Agreement</th>
<th>Sustainable Development Goals</th>
<th>Sendai Framework</th>
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<tbody>
<tr>
<td><strong>Strengthen systematic observation</strong></td>
<td><strong>Strengthen environmental monitoring</strong></td>
<td>Substantially increase the availability and access to multi-hazard early warning</td>
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<tr>
<td>of the climate system and early warning</td>
<td>for climate change mitigation, adaptation and early warning</td>
<td><strong>systems and disaster risk information</strong> and assessments to the people</td>
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<td>systems</td>
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The benefits from better prediction are measurable and significant

USD 160 billion

World Bank estimates of the minimum annual socio-economic benefits of weather prediction and climate information
Weather and climate observations from the whole globe are the basis for weather forecasts, early warning systems, and climate services.

The hydromet value chain:

1. Weather and climate observations
2. International weather and climate data sharing
3. Global weather and climate prediction models
4. Weather forecasts, early warnings and climate information products
5. Dissemination and outreach to vulnerable population and economic sectors
6. Use and national/global value of better early warnings and climate information
The foundational role of surface-based observations

- **Essential for weather and climate prediction models**
- **Measure weather and climate variables** that cannot be reliably observed from space
- **Play a vital role** in the calibration and validation of satellite data
The Global Basic Observing Network (GBON)
A global endeavor for better weather and climate information

- A global “optimal” design to respond to the most essential data requirements of weather and climate prediction models that are not met or fully met by satellite systems
- Agreed by 193 WMO Member countries and territories
- Clear requirements for countries to collect and internationally exchange the most essential surface-based weather data
- Based on the principle of global free and unrestricted data sharing
Surface-based observations necessary for weather and climate prediction are not being collected and/or internationally shared in many parts of the world.

**SIDS and LDCs** are currently far from meeting the Global Basic Observing Network requirements.

**Figure 3.** This map shows the horizontal resolution of upper air observations in different countries based on stations actively reporting in January 2020. Source: WMO Secretariat.
The output and outcome problem

Limited observations mean

- degraded local weather forecasts and climate prediction;
- degraded worldwide medium to long-range weather forecasts and climate predictions, since weather and climate prediction models fall short of their potential in terms of the quality of their predictions;
- **LCDs and SIDS suffer the most** from direct and indirect effects of poor weather and climate services

Example: Lack of observations in red area limits 7-10 day forecast skill in green area
The benefits from GBON

Closing the GBON gap is highly beneficial and economically efficient.

- **USD 5 billion per year** - the potential benefits directly attributed to the implementation of GBON in those countries with the largest data-sharing gaps

- **1:25 cost-benefit** - for every dollar invested in GBON in these countries, at least 25 US dollars in socio-economic return could be realized, much higher than in low-gap countries

- **These investments provide the foundation to realize the USD 162 billion** of estimated minimum annual benefits of weather and climate prediction
THANK YOU
MERCI
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Agenda item 3 - SOFF design and implementation

Markus Repnik, Director Development Partnerships
Outline

- SOFF basic design
- SOFF institutional set up
- SOFF implementation and funding needs
SOFF value proposition

SOFF will provide grants and technical assistance to countries with the largest capacity gaps for the long-term generation and international exchange of basic surface-based weather and climate observations.

SOFF three basic features

- Investments guided by internationally agreed global design and metrics – the GBON requirements
- Data sharing as a measure of success
- Long-term, results-based finance to contribute to operations and maintenance costs, in recognition of the global public good of observations
SOFF results framework

**GOAL**
Strengthen resilient development and climate adaptation through improved weather and climate prediction

**Phase**

1. Readiness Phase
   - Country Hydromet Diagnostics undertaken, and GBON gap established and verified

2. Investment Phase
   - GBON national contribution developed and verified
   - GBON infrastructure in place
   - GBON human and institutional capacity developed
   - Annual GBON compliance and forecast accuracy impact report published
   - GBON data internationally shared and results-based finance provided
   - On-demand GBON operational and maintenance advisory support provided
   - Weather and climate analysis products freely available through WMO Global Producing Centers

**Outcomes**

- Sustained compliance with the GBON
- Increased access to improved weather and climate prediction
SOFF operational design

Readiness
- Country Hydromet Diagnostics undertaken and GBON gap assessed and verified
- GBON national contribution developed and verified

Investment
- GBON infrastructure in place
- GBON human and institutional capacity developed

Compliance
- GBON data internationally shared and results-based finance provided
- Annual GBON compliance and impact report published
SOFF beneficiaries

- Focus on **Small Island Developing States and Least Developed Countries** for all three phases of SOFF support

- Other **OECD Official Development Assistance** countries eligible to access SOFF readiness support
SOFF operational partners

- **WMO technical authority** – Verify GBON requirements and compliance, and contribute to SOFF impact monitoring

- **Country Support Initiative (CSI)** – Provide peer to peer SOFF technical advisory, incl. Country Hydromet Diagnostics

- **SOFF implementing entities** – Execute SOFF investments and blend SOFF financing with own resources (Multilateral Development Banks and selected UN organizations)

- **WMO Global Producing Centres** – Provide free access to improved weather and climate analysis products and contribute to SOFF impact monitoring
A foundational and complementary partnership

- **SOFF** most direct benefit is for investments in weather forecasts, early warning systems and climate services - Alliance for Hydromet Development current hydromet portfolio USD 2.5 billion

- **SOFF** improvements in weather and climate prediction will enhance the effectiveness of major initiatives, incl. InsuResilience, REAP and CREWS.
SOFF basic institutional elements

Trustee
- SOFF fiduciary function
- Contributions will be bundled in a multi-donor trust fund or a financial intermediary fund

Steering Committee
- SOFF decision making body for operational guidelines, funding allocations, country requests
- Expected to be composed of funding partners, beneficiary country representatives and potentially other observers

Specialized Secretariat
- Coordinates and ensures that diverse functions and partners work together coherently
- Reports to and supports work of Steering Committee
- Administers Country Support Initiative
- Issues annual compliance and impact report
SOFF integration into an existing mechanism

- **SOFF – a dedicated mechanism, not a new institution:** SOFF to be integrated into an existing development or climate finance institution/mechanism

- **Criteria for selection of SOFF institutional host:** mandate/scope, diverse sources of financial contributions, transfer-out, ability to host specialized SOFF secretariat, complexity SOFF establishment and operation

- **7 SOFF host options identified:** Adaptation Fund, CIF, CREWS, GCA, GEF, GCF, UNEP with UN Multi-Partner Trust Fund

- **Firming up SOFF host and institutional arrangements:** envisioned by second SOFF funders’ forum, decision in collaboration with potential funders
SOFF implementation milestones and funding needs

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<tr>
<th>SOFF initial implementation period</th>
<th>SOFF implementation milestones</th>
<th>Estimated Funding Needs USD</th>
<th>Outputs</th>
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<td>67 SIDS and LDCs</td>
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<td>400 M</td>
<td>Up to 28-fold increase of exchanged observations</td>
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<td>Additional OECD ODA eligible countries supported - Readiness Phase</td>
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<td>Hydromet baselines assessed and GBON national plans verified</td>
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<table>
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<tr>
<th>SOFF second implementation period</th>
<th>SOFF implementation milestones</th>
<th>Estimated Funding Needs USD</th>
<th>Outputs</th>
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<td>Results-based finance to SIDS and LDC</td>
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<td>50 M per year</td>
<td>Continuous international data sharing</td>
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<td>Potential extension of GBON to other observation domains</td>
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<td>TBD</td>
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How will resources be deployed?

Readiness
- Advisory support to countries and SOFF implementing entities through the CSI
- On cost-recovery basis with standardized funding caps per country

Investment
- SOFF implementing entities draw on resources on behalf of countries

Compliance
- Annual results-based finance for verified GBON compliant stations provided to national meteorological service
- Covers averaged 75% of operation and maintenance costs
SOFF monitoring and evaluation

Annual GBON compliance and SOFF impact report

Adaptive management and continuous learning
- As needed, adjustments proposed to Steering Committee
- Self-assessment in third year

External evaluation
- In fourth year to inform SOFF operational design adjustment, for subsequent funding period
SOFF adaptation, evolution and risk mitigation

Evolving science and technology

- SOFF will finance best available and environmentally friendly technology – guided by WMO Infrastructure Commission

Evolving GBON regulatory framework

- SOFF envisioned to evolve as GBON evolves
- Potential future expansion into other earth observation domains

Managing risks

- SOFF implementation confronted with political, institutional, technical risks
- Risks assessment to be presented at second SOFF funders’ forum
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Agenda item 4 – Roadmap to COP 26

Laura Tuck, SOFF Global Facilitator
- The journey so far
- Consultations
- SOFF Funders’ Forum meetings
The SOFF journey so far

June to December 2019 - Initial SOFF idea and concept
- Brainstorming workshop and initial SOFF concept note
- Alliance launch, with commitment to create SOFF

January to October 2020 – SOFF design
- Multi-partner SOFF working groups and SOFF design workshop
- WMO data policy conference
- WMO Executive Council SOFF decision
- European meteorological institutions support

Since November 2020 – SOFF roadmap to COP26
- Institutional design, including hosting arrangements
- Consultations
- Resource mobilization: aiming for USD200m pledges by COP26; the rest in 2022
Country Consultations

- **WMO Presidents Regional Associations engaged** from the start

- **SOFF decisions by Regional Associations** Africa, South America, North/Central America and Caribbean, Europe; Asia and South-West Pacific upcoming

- **Country Hydromet Diagnostics “road-testing”** with 18 countries

- Tailored consultations with **LDC Group, African Group Negotiators, AOSIS, V20** starting.

- **Additional consultations** facilitated by Varysian platform (Caribbean, Latin America) and global webinar in the making
Private Sector Consultations

Consultations so far

- SOFF working group on private sector with focus insurance industry
- Association of Hydro-Meteorological Equipment Industry (HMEI)

Targeted consultations in collaboration with HMEI going forward

- Benefitting from private sector experience
- Exploring public-private sector business models
- Standardizing tender specifications for Automatic Weather Stations
Public Consultations

Open web-based consultation

- Planned June 2021
- Consultation section on SOFF web space

Other regional stakeholder consultations

- UNFCCC Regional Climate Weeks
- Global Commission on Adaptation regional events
The Journey to COP26

- **Second Funders Forum:**
  - Draft Resource Mobilization Report
  - Issues addressed since first forum
  - Firmed up host arrangements and institutional design
  - Progress on implementation arrangements
  - Risk assessment

- **Potential additional Forum, as needed**

- **Third Funders Forum**
  - Approval of final Resource Mobilization Report
  - Pledging for SOFF initial financial commitments

SOFF Funders’ Forum meetings