



**S**  **FF**

Systematic Observations Financing Facility

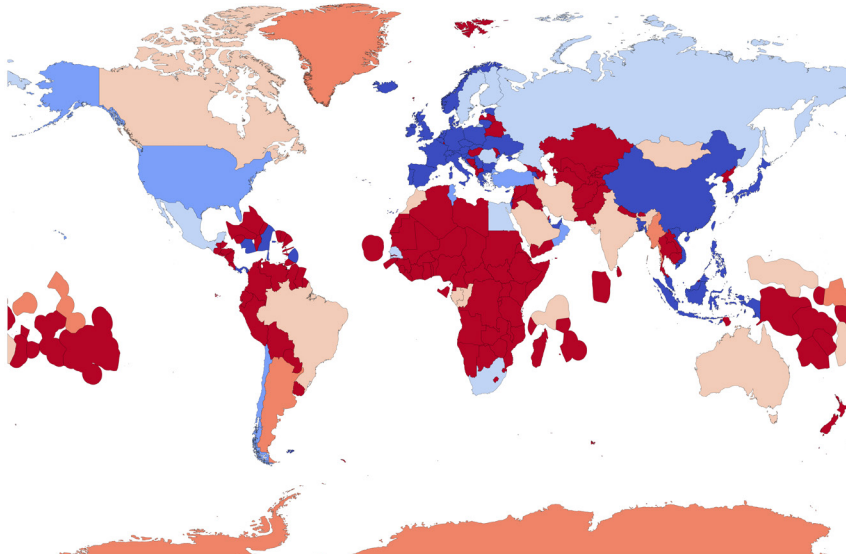
Weather  
and climate  
data for  
resilience

# Systematic Observations Financing Facility



# What is SOFF?

The [Systematic Observations Financing Facility \(SOFF\)](#) is a United Nations Multi-Partner Trust Fund (UNMPTF) created in 2021 by the World Meteorological Organization, the United Nations Environment Programme and the United Nations Development Programme for the provision of a global public good: basic weather and climate observations.



## Why has SOFF been created?

All weather and climate services, including early warning systems, are based on the use of basic weather and climate data from the whole globe. These services are critical to save lives and livelihoods and protect property.

However, the current gaps in global surface-based data significantly impact the quality of weather and climate services locally, regionally and globally.

The map shows in dark red, areas that are far from meeting the most important

requirements of the [Global Basic Observing Network \(GBON\)](#). Areas in light red shades are close to meeting the requirements and areas in blue shades meet or exceed the requirements. (Source: WMO Secretariat, 2022).

Small Island Developing States (SIDS) and Least Developed Countries (LDCs) have the largest data gaps, often due to a scarcity of technical and financial resources. These gaps are a missed opportunity to provide these countries and the world with effective weather and climate services.

**Today, less than 10% of the required basic weather and climate data are available from LDCs and SIDS.**



less than  
**10%**

# How does SOFF contribute to climate action?

“Systematic Observation” is an essential action area in the Paris Agreement, which calls for strengthening scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decision-making. SOFF fills a crucial gap for the achievement of a global goal on adaptation and a revamped climate finance architecture.

In March 2022, the United Nations Secretary-General Antonio Guterres announced a new UN initiative to ensure

that everyone is protected by early warning systems within five years. SOFF is a building block of this initiative – it will strengthen the data foundation that underpins early warning systems and adaptation efforts.

The countries with the biggest data gaps are also the most vulnerable to the impacts of climate change and they have been forcefully demanding scaled up action to achieve this goal.

The creation of SOFF responds to this demand and to an overall global call to address this problem.

““

“As the climate crisis worsens, it is crucial that we boost the power of prediction for everyone so countries can reduce disaster risk. That is why we have launched an initiative to ensure that every person on Earth is protected by early warning systems within the next five years. The Systematic Observations Financing Facility (SOFF) is an essential tool to achieve this.”

*United Nations  
Secretary-General, António  
Guterres*

“Disaster readiness and disaster resilience are two sides of the same coin and they both stand to benefit from the Systematic Observations Financing Facility, designed to support vulnerable countries like Fiji.”

*Prime Minister of Fiji, Frank  
Bainimarama*

“Several countries in the region have in the past experienced hurricane losses amounting to multiples of their GDP. Such devastation makes it extremely difficult to attain our goals of optimizing weather observation networks, critical to the provision of data to quantify the impact of weather systems.”

*Prime Minister of Jamaica,  
Andrew Holness*

””

# What does SOFF do?

The objective of SOFF is to support SIDS and LDCs by providing grant financing and technical assistance for the sustained collection and international exchange of surface-based weather and climate observations according to the GBON regulations.

SOFF also provides some technical assistance to other developing countries.

GBON sets out an obligation and clear requirements to acquire and internationally exchange the most essential surface-based observational data at a minimum resolution and timeframe level. GBON is a landmark international agreement and offers a new approach in which the basic surface-based observing network is designed, defined and monitored at the global level.

SOFF supports the implementation of GBON through the combination of four key features.



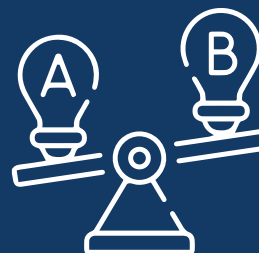
Global approach with sustained **international data exchange** as a measure of success



**Long-term finance** toward sustained data sharing



Technical competency provided through **peer-to-peer advisory services**

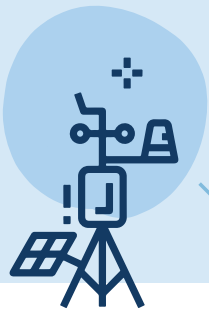
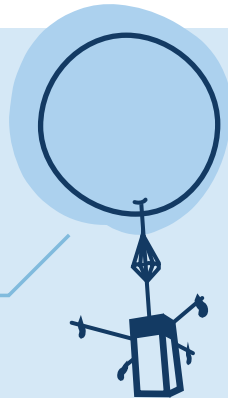


Leverage of **multiple partners' knowledge and resources**

# What will SOFF deliver?

**12 x**

more data shared  
from upper air stations



**28 x**

more data shared  
from surface stations

## Data

SOFF will close the data gap in SIDS and LDCs and enable a 28 times increase in observations from surface stations and a 12 times increase from upper air stations.

This will lead to a significant improvement in the capacity to forecast extreme weather events and predict the changing climate, therefore leading to more effective climate action and adaptation strategies.

## Socio-economic benefits

It is estimated that filling the weather and climate data gaps in the countries with the largest capacity constraints will deliver USD 5 billion per year of annual socio-economic benefits.

Weather and climate observations are essential to fully realize the USD 162 billion of estimated minimum annual socio-economic benefits of weather and climate prediction from improved disaster management and optimized economic production.



weather and  
climate prediction

socio-economic  
benefits



**\$ 5 billion**

**\$ 162 billion**

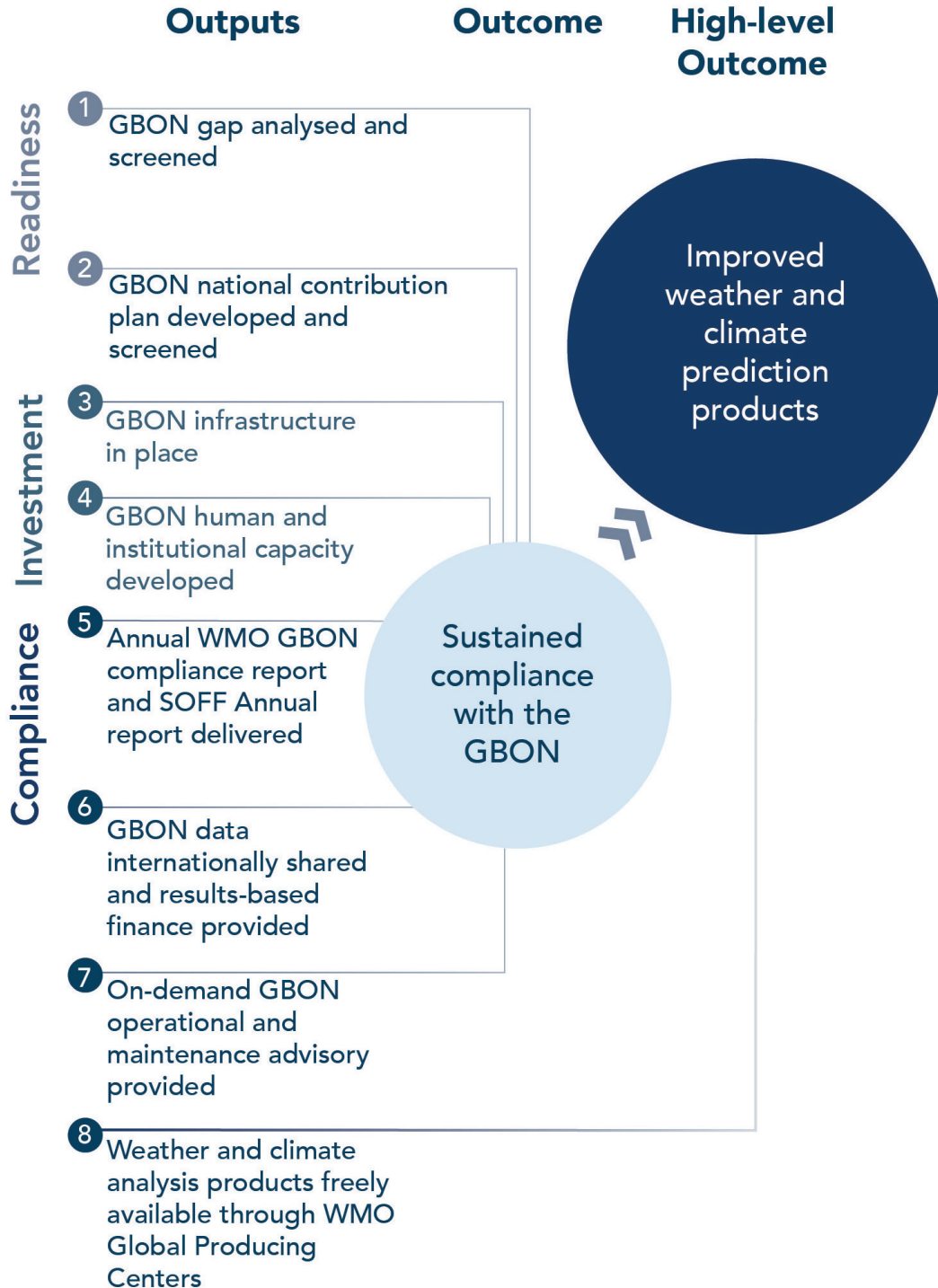
**\$ 650 million**

## How much does it cost?

The estimated total cost of implementing SOFF over 10 years and delivering those benefits is USD 650 million.

# How does SOFF operate?

SOFF support will be delivered in three phases: Readiness, Investment and Compliance.



# Who are the main partners?

Achieving sustained GBON compliance requires the effective collaboration of many stakeholders. Through a new extensive partnership, SOFF aims to maximize synergies and opportunities to ensure that the improved weather and climate data enabled by SOFF effectively translates into socio-economic benefits.

## SOFF UN MULTI-PARTNER TRUST FUND

### Co-creators

WMO, UNDP, UNEP

### Trustee

UN Multi-Partner  
Trust Fund Office

### Funding partners

Bilaterals and multilaterals

### GOVERNANCE

Steering Committee,  
decision-making body;

Advisory Board,  
provides strategic advice to the  
Steering Committee;

UN MPTF Office,  
SOFF Trustee;

Secretariat,  
coordinates SOFF operations  
and administrative matters.

### OPERATIONS

Peer advisors,  
advanced National Meteorological  
and Hydrological Services that provide  
technical assistance to SOFF beneficiary  
countries;

Implementing Entities,  
major multilateral development partners  
involved in hydromet development, MDBs  
and UN organizations;

WMO Technical Authority,  
provides independent verification and  
basic technical support to the peer  
advisors, Implementing Entities and  
beneficiary countries.

# Who supports the creation of SOFF?

The creation of SOFF benefitted from the support of a wide range of stakeholders, including the Alliance for Hydromet Development, other international organizations, the private sector and the civil society.

SOFF initial funders are Austria, Denmark, Finland, Norway, Ireland, Iceland, and the Nordic Development Fund.



Weather  
and climate  
data for  
resilience

Systematic Observations Financing Facility

**More information at:** [alliancehydromet.org/soff](https://alliancehydromet.org/soff)  
**Contact:** [mrepnik@wmo.int](mailto:mrepnik@wmo.int)

June 2022