



# SYSTEMATIC OBSERVATIONS FINANCING FACILITY

WEATHER AND CLIMATE DATA FOR RESILIENCE



**A new way of financing  
surface-based observations**

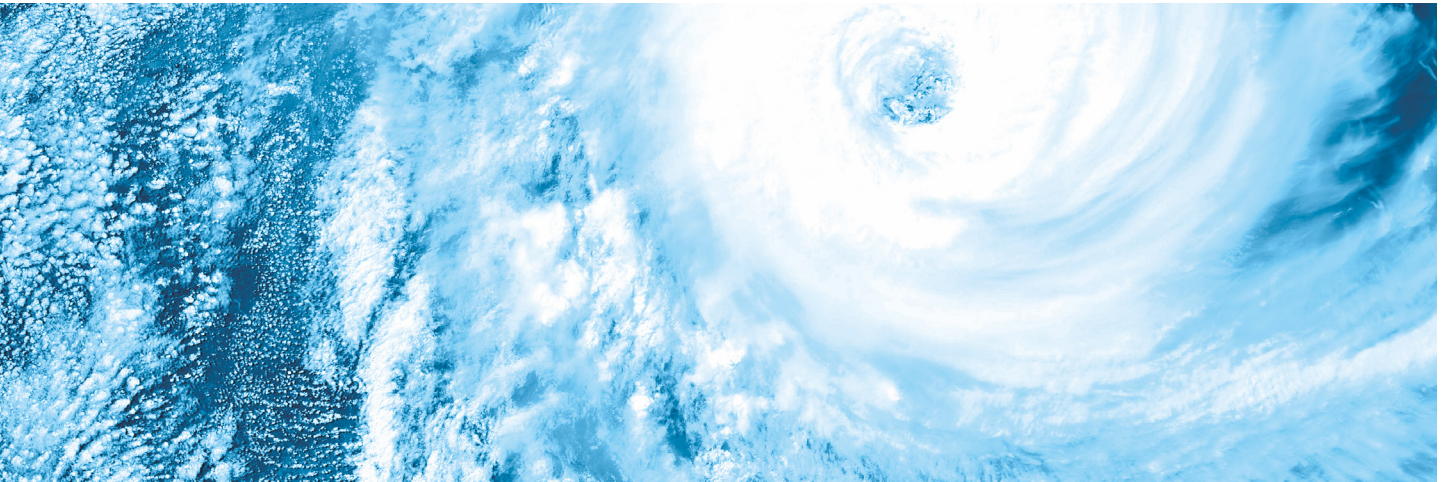
SOFF SECRETARIAT, DECEMBER 2024

# A NEW CLIMATE FUND

The [Systematic Observations Financing Facility \(SOFF\)](#) is a new specialized United Nations climate fund, established at the request of the 193 countries and territories of the World Meteorological Congress by the World Meteorological Organization (WMO), the United Nations Development Programme (UNDP) and United Nations Environment Programme.

SOFF delivers on the Paris Agreement call to strengthen systematic observation. It supports developing countries to accelerate

the sustained collection and international exchange of the most essential surface-based weather and climate observations in compliance with an international agreement, mandatory for all countries from 2023. SOFF is putting an initial focus on Small Island Developing States (SIDS) and Least Developed Countries (LDCs).



## DATA, THE INVISIBLE BUT ESSENTIAL INGREDIENT

All weather forecast and climate prediction depend on observational data from the current and past state of the earth. As weather and climate do not know boundaries, all forecasts beyond three days require data from across the globe.

According to the European Centre for Medium-Range Weather Forecasts (ECMWF), investing in additional surface-based observa-

tions is highly beneficial for improved forecast accuracy, and investments in data sparse regions have the highest impact.

It is estimated that highly weather-sensitive sectors such as agriculture, energy, transport and disaster risk management could benefit by over USD 160 billion per year from improvements in weather forecasting capabilities based on improved observational data.

# MAJOR DATA GAPS IN DEVELOPING COUNTRIES

In today's world, weather and climate data are economic data, yet significant observation gaps remain in developing countries.

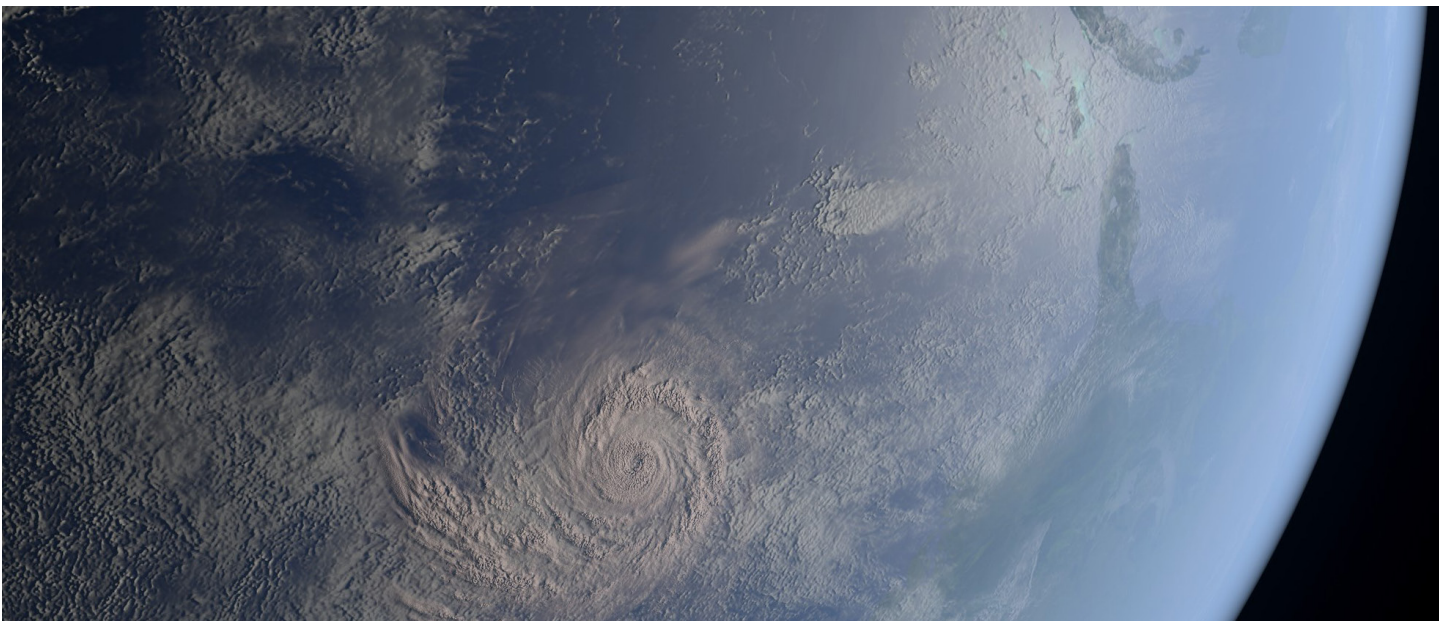
In SIDS and LDCs only eight percent of mandatory surface land stations and 13 percent of upper air stations are reporting according to the international agreement. The 39 Fragile and Conflict Affected States have only seven surface stations in total reporting accordingly. In Germany, there are more reporting surface stations than in the whole African continent.



## A NEW PARTNERSHIP WITH DEVELOPING COUNTRIES

Investments in systematic observation are needed most in regions where they matter the most— in developing countries. Collecting basic weather and climate data in these regions generates not only local benefits, but also substantial socio-economic benefits for the entire globe, including for the most advanced economies, and represents a global public good.

This [calls for a new systematic observation partnership with developing countries](#), built on equal footing and recognizing the crucially important contributions of these countries to the global observing system. SOFF provides the platform for this partnership.



# SOFF OPERATES AT SPEED AND SCALE

Developing countries are committed to delivering their share of observations to the global observing system, and more than 100 countries have already requested SOFF support. SOFF opened its doors for business in July 2022, the first country funding was approved in March 2023, and today [60 countries are receiving initial SOFF support](#).

An independent external review assessed SOFF as highly relevant, highly transparent, and highly effective; as the best viable option for countries to upgrade, maintain and oper-

ate their observation systems in a sustainable fashion; and as foundational for additional investments of other partners.

SOFF's initial success has been possible thanks to the leadership and contributions of [12 pioneer funders](#) that have so far pledged more than USD 100 million. But over the first five years of its operations SOFF will need at least USD 400 million drawing on the support of a broader group of funders for an effective response to country demand.

## OVERVIEW

**2.5**  
**YEARS**

in operation,  
as a new fund

**101**  
**COUNTRIES**

have requested  
SOFF support

**60**  
**COUNTRIES**

in Readiness phase  
since March 2023

**18**  
**REQUESTS**

Investment funding  
requests approved since  
November 2023

**115** USD  
**MILLION**

approved funding  
in total

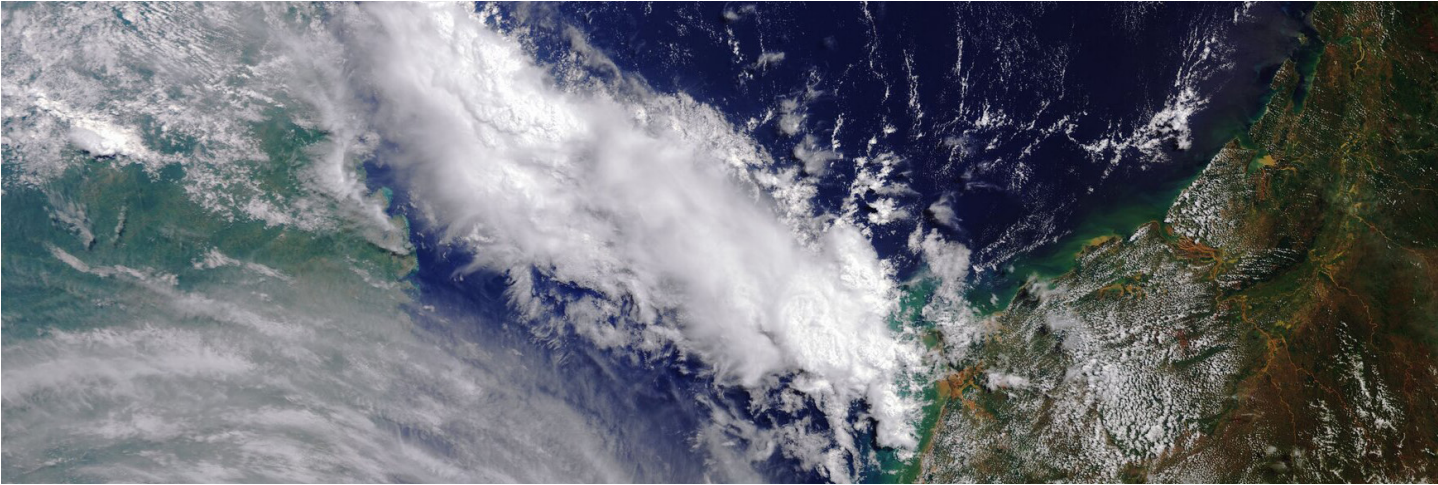
**72**  
**PARTNERS**

under one roof

**5** USD  
**BILLION**

annual benefits as a result of countries generating and internationally exchanging basic weather and climate data, enabled by SOFF





# SOFF CONTRIBUTES TO THE NEW CLIMATE FINANCE GOAL

The 29<sup>th</sup> UN Climate Change Conference (COP29) agreed on a new climate finance goal to triple finance to developing countries by 2035 and to secure efforts of all actors to work together to scale up finance to developing countries from public and private sources.

COP29 also highlighted the essential role of Earth observation for climate action, noted with appreciation the support provided by SOFF, and invited SOFF to consider extending its support to more countries.

With its single outcome metric – exchange of internationally agreed basic weather and climate data – SOFF is an important vehicle for mobilizing results-based climate finance and contributing to the achievement of the new climate finance goal.





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# SOFF CREATES NEW BUSINESS MODEL

SOFF recognizes the global public good value of basic weather and climate data and hence only provides grant funding – through a phased and result-based approach. In the first phase, the Readiness Phase, SOFF ensures that gaps and needs are thoroughly assessed and identified before investments are made, building on existing infrastructure and previous investments.

A unique feature of SOFF is its open-ended Compliance Phase, a results-based payment approach that promotes the long-term sustainability of investments by substantially contributing to the operation and maintenance costs of observational networks and ensuring the continuous collection and global exchange of weather and climate data.

Given the technically complex challenge of operating and maintaining observation stations and internationally exchanging data, SOFF provides [peer-to-peer technical assis-](#)

[tance](#) from advanced national meteorological services from 28 countries on a non-profit basis, including South-South support.

Multilateral Development Banks and UN Agencies with extensive experience in supporting developing countries on climate action and sustainable development serve as [SOFF Implementing Entities](#), blending SOFF resources with their investments. This ensures enhancing country capacity to utilize the improved weather and climate forecasts for development, climate and early warning action. WMO plays a crucial role throughout with technical oversight and guidance.

By bringing together committed countries, peer advisors, Implementing Entities and WMO, SOFF creates a community of practice that supports developing countries in new ways to tackle a perennial problem: missing reliable weather and climate data.

# SOFF WORKS HAND IN HAND WITH OTHER FUNDS AND INITIATIVES

SOFF is an essential fund in the development and climate finance architecture. It contributes deep, technically focused support to countries to achieve compliance with their weather and climate data sharing obligations while linking laterally to partners including major climate finance institutions.

At COP28, SOFF signed a [collaboration framework for enhancing systematic observation](#) with major multilateral climate funds, including the Green Climate Fund. At COP29, SOFF sealed agreements with the [Weather Ready Pacific Programme](#) and with the [African Development Bank](#) for scaled up and complementary support to countries in these regions.

SOFF is also a partner to several global initiatives. It serves as a foundational element and delivery vehicle of the [UN Early Warnings for All initiative](#) that aims to ensure that everybody on the planet is protected through early warning systems by 2027, as called for by the United Nations Secretary-General António Guterres.

At the COP29 World Leaders Climate Action Summit, the [Agriculture Innovation Mechanism for Scale \(AIM for Scale\) unveiled its Innovation Package](#), aimed at providing weather information to help farmers adapt to the impacts of climate change, with SOFF as a partner.



## SOFF ACTION REPORT 2024

Read the report here.



## PORTFOLIO

Check out the SOFF Dashboard.





| **S**  **FF**  
Systematic Observations Financing Facility



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Systematic Observations Financing Facility

Weather  
and climate  
data for  
resilience

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