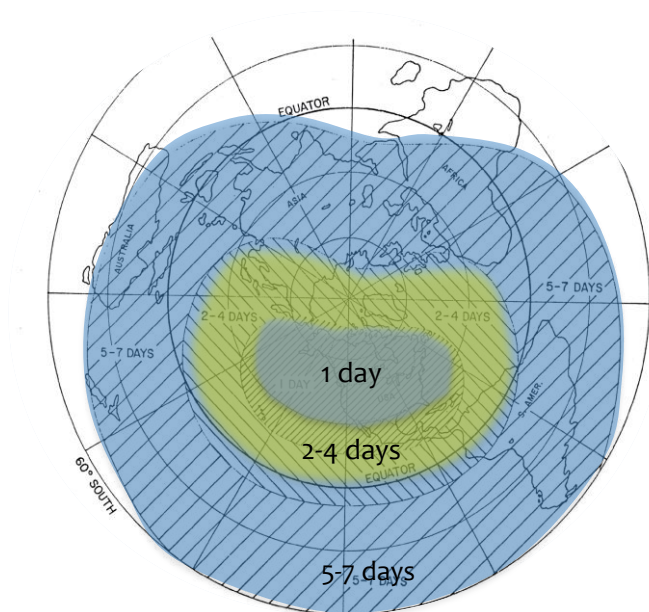


Systematic Observations Financing Facility

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

Initial concept
October 2019

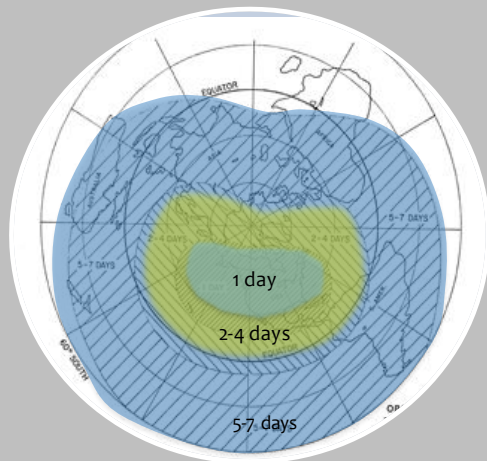


This initial concept note was developed by a team composed of colleagues from World Meteorological Organization, World Bank, Green Climate Fund, Climate Risk and Early Warning Systems Initiative Secretariat, Global Climate Observing System Secretariat, European Center for Medium-Range Weather Forecasts,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



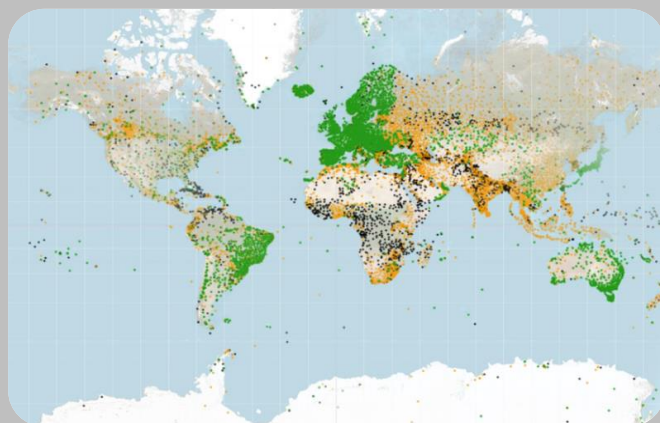
Lack of observations severely limits efforts to understand and predict weather and climate patterns, both locally and globally. Weather prediction beyond 5 days for any location requires observations from the whole globe. Therefore, it is in all countries' self-interest to ensure global coverage of observations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



Source: WIGOS, 2019.

-  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



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 Numerical Weather Prediction (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.