



WORLD
METEOROLOGICAL
ORGANIZATION

WEATHER CLIMATE WATER

WMO STRATEGIC PLAN 2016–2019

CONTEXT

The World Meteorological Organization (WMO) Strategic Plan 2016–2019 sets the directions and priorities to guide the activities of the World Meteorological Organization to enable all Members to improve their information, products and services. It anticipates increased demand for high-quality weather, hydrological and climate services to enhance community resilience, contribute to economic growth and protect life and property from extreme weather, climate and water events. The goal is to provide fit-for-purpose, high-quality weather, climate, hydrological and other environmental services to their citizens to enable them to address the rapidly evolving challenges associated with climate variability and change.

ENABLING SUSTAINABLE DEVELOPMENT

Recognizing the growing socioeconomic and environmental risks and the benefits that meteorological and hydrological services bring, WMO Programmes are designed and implemented to improve the capabilities of all National Meteorological and Hydrological Services (NMHSs) to meet their mandates and benefit the governments, institutions and citizens of their countries, to contribute to the 2030 Agenda for Sustainable Development, the Paris Agreement and the Sendai Framework for Disaster Risk Reduction 2015–2030, and to meet the following broad global societal needs:

- **Improved protection of life and property** to reduce disaster risks by mitigating the impacts of hazardous weather, climate, water and other environmental

events, and addressing the need for improved safety of transport on land, at sea and in the air;

- **End poverty, ensure sustainable resilient livelihoods, food security, access to water and energy, healthy lives, gender equality, and economic growth, and combat climate change** by making available weather, climate, hydrological and related environmental services to support climate risk management, climate resilience, green economy, disaster risk reduction, food security and agriculture, improved health and social well-being of citizens, and water management, and tapping renewable energy resources such as hydro-, solar and wind power;
- **Sustainable use of natural resources and improved environmental quality** by designing weather, climate, hydrological and related environmental services to manage atmospheric, terrestrial and water resources on all timescales, and the development and management of other natural resources.

THE ROLE OF NATIONAL METEOROLOGICAL AND HYDROLOGICAL SERVICES

Figure 1 below illustrates the role of National Meteorological and Hydrological Services in responding to the global societal needs. National Meteorological and Hydrological Services are built upon a foundation of observations and data that, together with research activities, are used to produce relevant, timely and quality information and services. Such information and services can have a positive impact on the critical decisions of those who are sensitive to the extremes of weather, climate and water, as well as help decision-makers address societal needs. These services

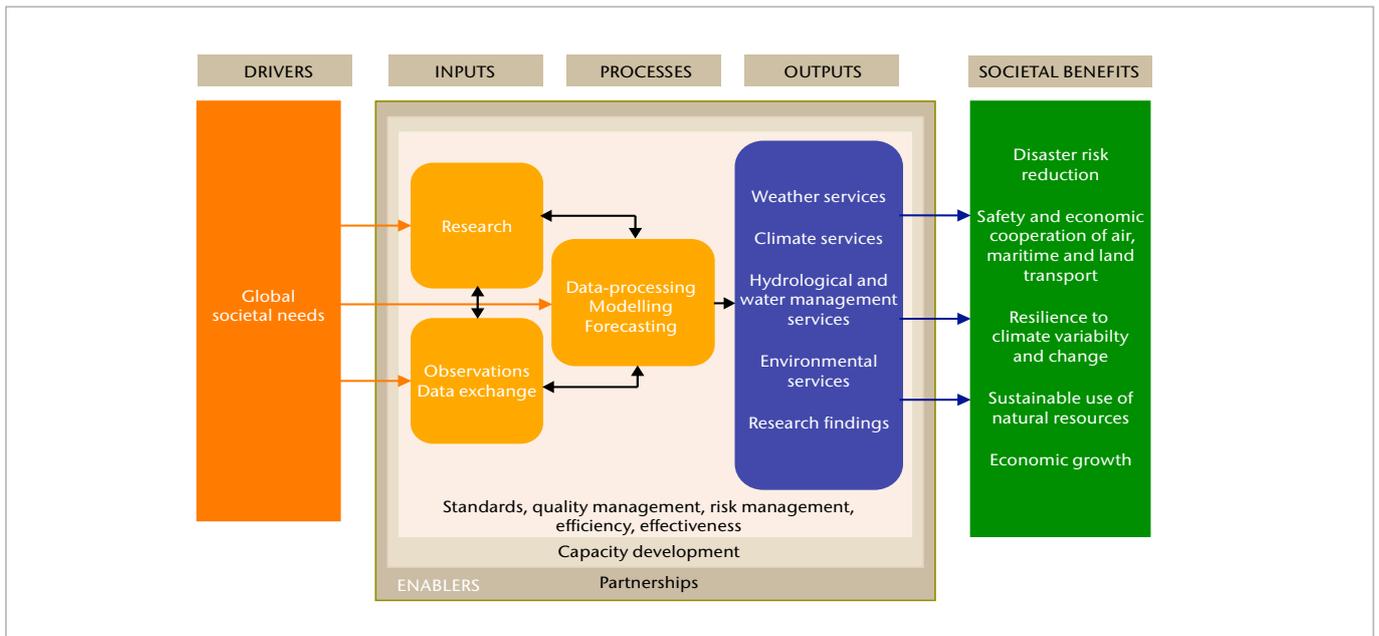


Figure 1: Schematic representation of the processes involved in delivering effective weather, climate and hydrological services, and processes to achieve them linked with the WMO mandate

also help to improve environmental quality, enable safe and efficient transportation and support positive health outcomes through warnings of health impacts from poor air quality or vector-borne disease outbreaks. WMO plays an essential role in coordinating global meteorological data and in setting service delivery quality standards for NMHSs. The efficiency and effectiveness of NMHSs is enhanced through improved data interoperability and quality management systems, enabling them to better fulfil their mandates, demonstrate their relevance and raise their visibility within national governments and with other stakeholder organizations.

High-impact weather and climate extremes are likely to occur with greater frequency and intensity due to climate variability and change, with significant effects on society, the economy and the environment. The personal and social costs of these losses are tremendous; the financial impacts alone are enormous – insured losses from natural catastrophes have ranged between US\$ 10 billion and US\$ 50 billion a year internationally over the past decade (Figure 2). Early warnings of high-impact weather, marine weather, and climate and hydrological events can contribute to improved food security strategies, community resilience, water resource management,



Weather-, marine weather-, climate- and water-related hazards do not necessarily need to become natural disasters (Source of photos: S.Piyaset / Adobe Stock, UN Photo / Logan Abassi).

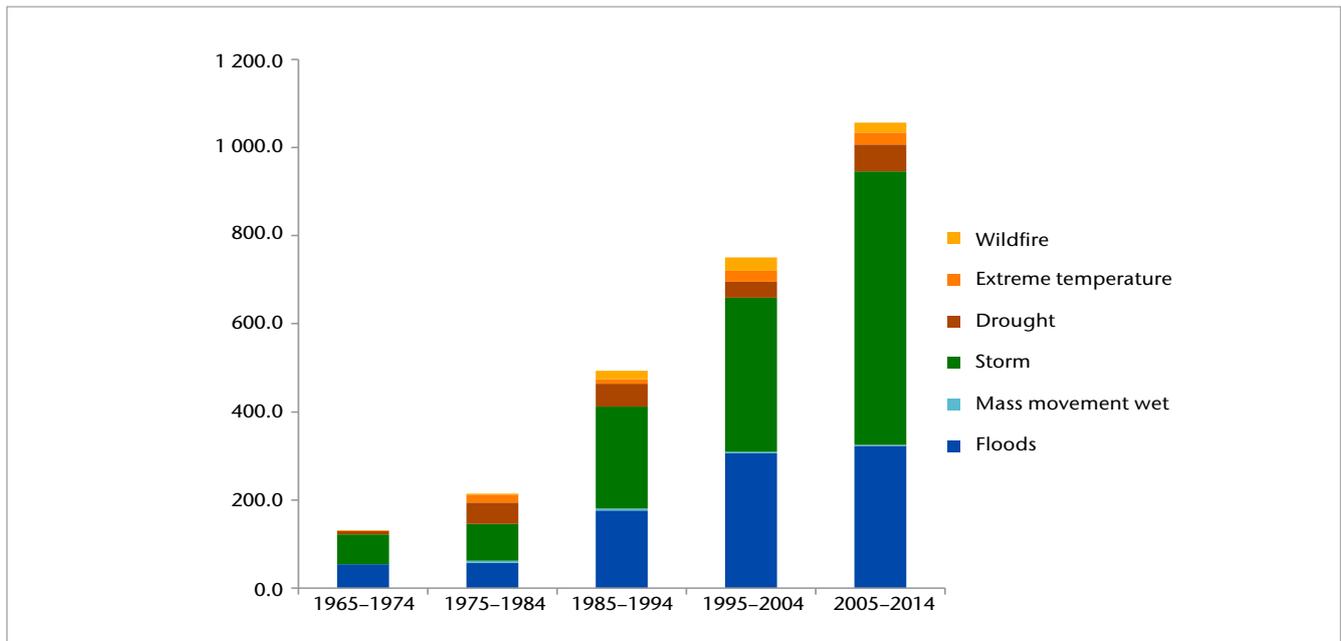


Figure 2: Global total economic losses by decade and by hazard type in billions of United States dollars adjusted to 2012 for the period 1965–2014 (Sources: WMO and CRED, 2015)

safety of life and protection of property, and can limit the disastrous effects of such events. Investments to strengthen monitoring infrastructure and improve the quality of weather, marine weather, climate and hydrological predictions can result in effective disaster prevention and socioeconomic planning, together with effective investment in renewable energy such as solar, wind and hydropower.

THE ROLE OF WMO

WMO provides world leadership and expertise in international cooperation in the delivery and use of high-quality, authoritative weather, marine weather, climate, hydrological and related environmental services by its Members, for the improvement of the well-being of societies of all nations. It does so by setting and coordinating standards and practices among its Members, based on core values of professionalism, excellence, impartiality, cultural sensitivity, non-discrimination and team spirit in international service. The mission of WMO is described in its Convention. It is focused on facilitating worldwide cooperation in establishing and standardizing systems for gathering, processing and sharing meteorological, hydrological and other geophysical observations, together with promoting research and applications in various sectors, among other responsibilities.

WMO PRIORITIES 2016–2019

WMO priorities for 2016–2019 reflect the inputs from all WMO constituent bodies and in particular the six regional associations, which gathered the collective views of all 191 Members. The following key priorities will be given additional emphasis in the WMO Programmes and results-based budget for 2016–2019:

- (a) **Disaster risk reduction:** Improve the accuracy and effectiveness of impact-based forecasts and multi-hazard early warnings of high-impact meteorological, hydrological and related environmental hazards, thereby contributing to international efforts on disaster risk reduction, resilience and prevention.
- (b) **Global Framework for Climate Services (GFCS):** Implement climate services under the GFCS particularly for countries that lack them.
- (c) **WMO Integrated Global Observing System (WIGOS):** Strengthen the global observing systems through full implementation of WIGOS and the WMO Information System (WIS).
- (d) **Aviation meteorological services:** Improve the ability of NMHSs to provide sustainable high-quality services in support of safety, efficiency and regularity of air traffic management worldwide, with due account to environmental factors.
- (e) **Polar and high-mountain regions:** Improve operational meteorological and hydrological

monitoring, prediction and services in polar and high-mountain regions and beyond.

- (f) **Capacity development:** Enhance the capacity of NMHSs to deliver on their mission.
- (g) **WMO governance:** Improve efficiency and effectiveness of WMO.

EXPECTED RESULTS

To achieve significant, targeted improvement of services to address the escalating needs, WMO will focus its endeavours on the following Expected Results:

1. **Improved service quality and service delivery:** Enhanced capabilities of Members to deliver and improve access to high-quality weather, climate, hydrological and related environmental predictions, information, warnings and services in response to users' needs and to enable their use in decision-making by relevant societal sectors.
2. **Reduced disaster risk:** Enhanced capabilities of Members to reduce risks and potential impacts of hazards caused by weather, climate, water and related environmental elements.
3. **Improved data-processing, modelling and forecasting:** Enhanced capabilities of Members to produce better weather, climate, water and related environmental information, predictions and warnings to support, in particular, reduced disaster risk and climate impact and adaptation strategies.
4. **Improved observations and data exchange:** Enhanced capabilities of Members to access, develop, implement and use integrated and interoperable Earth- and space-based observation systems for weather, climate and hydrological observations, as well as related environmental and space weather

observations, based on world standards set by WMO.

5. **Advance targeted research:** Enhanced capabilities of Members to contribute to and draw benefits from the global research capability for weather, climate, water and related environmental science and technology development.
6. **Strengthened capacity development:** Enhanced capabilities of Members' NMHSs, in particular in developing and least developed countries and small island developing States, to fulfil their mandates.
7. **Strengthened partnerships:** New and strengthened partnerships and cooperation activities to improve NMHSs' performance in delivering services and to demonstrate the value of WMO contributions within the United Nations system, relevant regional organizations, international conventions and national strategies.
8. **Improved efficiency and effectiveness:** Ensured effective functioning of policymaking and constituent bodies and oversight of the Organization.

The degree to which the Plan is factored into the national, regional and international development agenda is amongst the risks that will influence the achievement of the Expected Results. The fluid global financial situation is having a significant impact on voluntary contributions, which provide some of the resources for implementing the strategic priorities, particularly to enhance capacities of NMHSs in developing and least developed countries and small islands developing States.

Collective efforts by Members and partners will enable the citizens we serve to make informed decisions and be better prepared to withstand weather, water, climate and environmental risks and extreme events.

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