WMO STRATEGIC PLAN
2012–2015

World Meteorological Organization
Weather • Climate • Water

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FOREWORD

The World Meteorological Organization Strategic Plan for 2012–2015 and beyond reflects the decisions and directions of the Sixteenth World Meteorological Congress (Geneva, May/June 2011) that will guide decision-making by the Organization and its constituent bodies over the next four years.

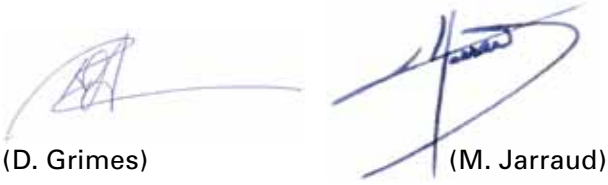
The vision of the World Meteorological Organization (WMO) is to provide world leadership in expertise and international cooperation in weather, climate, hydrology and water resources, and related environmental issues, thereby contributing to the safety, health and well-being of people throughout the world and to societal, economic and environmental benefits for all nations.

The Congress recognized that all societies are affected by extreme weather, climate and water events, and that the expected increase in the intensity and frequency of some of these extremes due to climate variability and change, as anticipated in the *Fourth Assessment Report* of the Intergovernmental Panel on Climate Change, will be a major challenge, particularly for the developing and least developed countries and small island developing States. Congress noted that over 90 per cent of natural disasters are related to hydrometeorological hazards, and that developing and least developed economies are the most vulnerable, in particular because of their limited societal and economic rebuilding capacities to deal with the aftermath of these events.

The five strategic thrusts on which the Plan is based should be considered pillars not only for WMO, but also for the National Meteorological and Hydrological Services of its 189 Members. The strategic thrusts are aimed at enabling enhanced performance in service delivery; better weather, climate and water observations; incorporation of scientific and technological advances into hydrometeorological operations; capacity development; and improved effectiveness.

The WMO Strategic Plan is organized around three global societal needs, five Organization-wide strategic thrusts and eight expected results. The Congress emphasized five key priority areas (the Global Framework for Climate Services, implementation of the WMO Integrated Global Observing System/WMO Information System (WIGOS/WIS), aeronautical meteorology, capacity development, and disaster risk reduction), which are considered to contribute significantly to the achievement of the expected results. The Strategic Plan forms the basis for the subsequent WMO Operating Plans for the Secretariat, the six regional associations and the technical commissions, as well as the Organization's Results-Based Budget.

The Congress was indeed confident that the WMO vision will be optimally realized through the implementation of the orientation contained in this Plan, in conjunction with the five adopted strategic priority areas, thereby enabling societies to be better prepared to endure weather, water, climate and environmental extremes, while at the same time enabling nations to become even more resilient to the impacts of these events.



(D. Grimes)
President

(M. Jarraud)
Secretary-General

INTRODUCTION

SOCIETAL BENEFITS OF WEATHER, CLIMATE AND WATER SERVICES

The social and economic value of weather and climate information is derived from the influence of this information on decisions made by users in the sectors sensitive to weather and climate conditions, and the value tends to increase with the quality, accuracy, timeliness, locational specificity and user-friendliness of the information (4). The estimated economic benefits of climate forecasts related to El Niño–Southern Oscillation (ENSO) events for the agricultural sector alone range from US$ 450 million to US$ 550 million per year (minimum) worldwide, with agriculture in the United States of America accounting for between US$ 200 million and US$ 300 million of this figure (1).

Recent statistics from the Centre for Research on the Epidemiology of Disasters for the period from 1980 to 2007 reveal that over 90 per cent of all disasters related to natural hazards, 71 per cent of the casualties and 78 per cent of the economic losses were caused by weather-, climate- or water-related hazards such as tropical cyclones and storm surges, droughts, floods or disease epidemics and insect infestations. Significant reductions in losses of life and an increase in economic losses during the period 1956–2005 are evident from Figure 1.

The warnings formulated from skilful seasonal forecasts can contribute significantly to a reduction in losses of life and property associated with climate-related natural disasters, and also to enhanced productivity in sectors dependent on climate (5) and to more efficient management of institutions dependent on weather and climate (2). Significant progress in improving the quality, timeliness and utility of weather, climate, water and related environmental services (for example, improvements in the accuracy of 3- to 10-day forecasts between 1980 and 2010) has resulted from cooperation among all nations in sharing observations of the Earth system from the local to the global scales, coupled with advances in data assimilation techniques and numerical models (Figure 2).

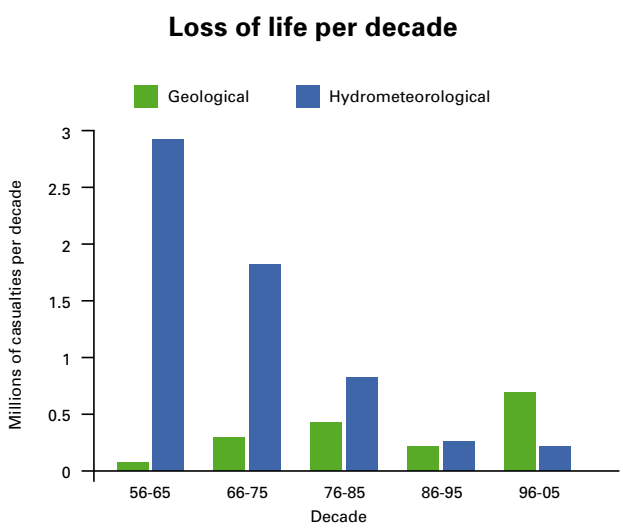


Figure 1a

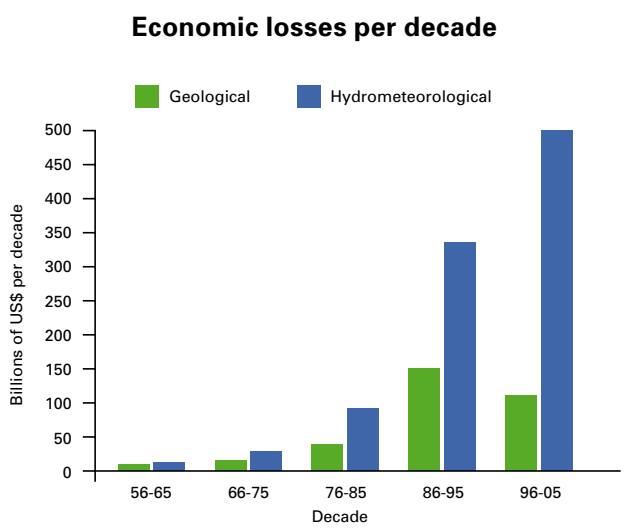
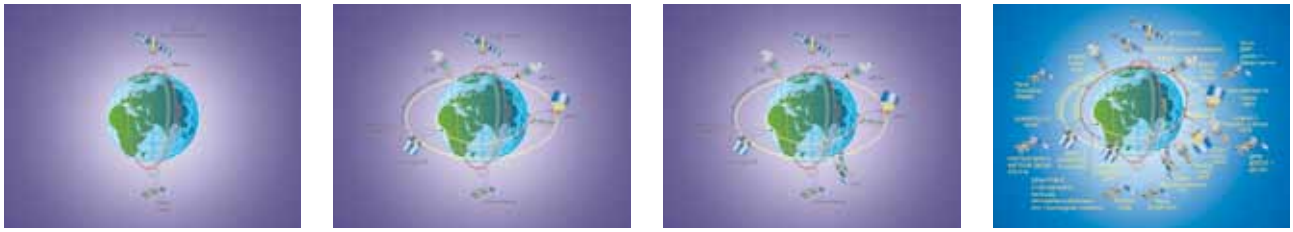


Figure 1b

Figure 1. *Decadal trends in natural hazard impacts over the five last decades showing a decline in loss of life (left panel) and a rise in economic losses (right panel) associated with hydrometeorological hazards (3)*



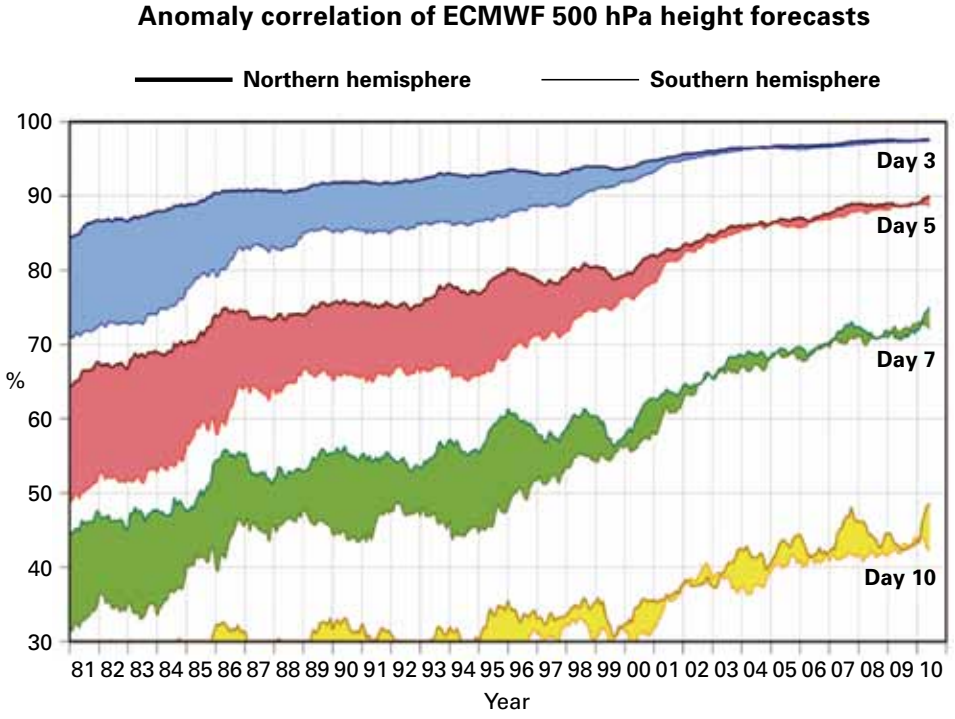


Figure 2. *Improvements in anomaly correlation of 500 hPa height forecasts of the European Centre for Medium-Range Weather Forecasts (ECMWF) for the northern and southern hemispheres linked to the increase in satellite observations and skill of numerical models*

Despite the progress in improving services, many societies are increasingly vulnerable to natural hazards and national economies are becoming more sensitive to climate variability and change, as extreme climatic events are occurring with greater frequency and intensity. The losses of life, the number of people affected and the economic losses (as a percentage of gross domestic product) associated with natural hazards are more severe for the developing countries than for developed economies. This provides a strong argument for improving weather, climate, water and related environmental services, as well as communications and emergency response activities, particularly in developing and least developed countries (LDCs), small island developing States (SIDS) and other vulnerable countries.

The World Meteorological Organization (WMO) is focusing its strategic direction for the period 2012–2015 on five strategic thrusts that address global societal needs. Its Strategic Plan underscores the importance of improving service quality and service delivery by advancing scientific research and application; strengthening capacity-building; building and enhancing partnerships and cooperation; and strengthening good governance. The achievements of WMO over the decades

GLOBAL SOCIETAL NEEDS

- Improved protection of life and property (related to impacts of hazardous weather, climate, water and other environmental events, and increased safety of transport on land, at sea and in the air);
- Poverty alleviation, sustained livelihoods and economic growth (in connection with the Millennium Development Goals), including improved health and social well-being of citizens (related to weather, climate, water and environmental events and influence);
- Sustainable use of natural resources and improved environmental quality.

demonstrate its ability to address the challenges of weather, climate, water and related environmental conditions and to bring these concerns to the forefront as nations work to improve the well-being of society and achieve sustainable development.

PURPOSE AND CONTEXT OF THE WMO STRATEGIC PLAN

The mission of the World Meteorological Organization, as presented in the Convention establishing the Organization (6) is:

(a) To facilitate worldwide cooperation in the establishment of networks of stations for the making of meteorological observations as well as hydrological and other geophysical observations related to meteorology, and to promote the establishment and maintenance of centres charged with the provision of meteorological and related services;

(b) To promote the establishment and maintenance of systems for the rapid exchange of meteorological and related information;

(c) To promote standardization of meteorological and related observations and to ensure the uniform publication of observations and statistics;

(d) To further the application of meteorology to aviation, shipping, water problems, agriculture and other human activities;

(e) To promote activities in operational hydrology and to further close cooperation between meteorological and hydrological services; and

(f) To encourage research and training in meteorology and, as appropriate, in related fields, and to assist in coordinating international aspects such as research and training.

In the light of its mission and the decision of its 189 Members to address a set of global societal needs, WMO is committed to achieving its vision of providing world leadership in expertise and international cooperation in weather, climate, hydrology and water resources, and related environmental issues, which will contribute to the safety, health and well-being of people throughout the world and to societal, economic and environmental benefits for all nations. Utilizing the capabilities of the National Meteorological and Hydrological Services (NMHSs), WMO will focus its programmes and activities on providing

the best possible services to support the safety and well-being of its Members and their efforts to address global societal needs and environmental issues.

The World Meteorological Organization occupies a unique position within the international system: it has developed an unmatched system of global cooperation in weather, climate, hydrology and related environmental observations, data and services. It has been most effective in facilitating the development of NMHSs in almost all of the countries in the world. The achievements of WMO include:

(a) **Free and unrestricted exchange of meteorological and related data and products,** which is essential for all real-time weather, climate, water and related environmental services, as well as for the assessment of the evolution of the climate system;

(b) **International standards for meteorological and related observations** to ensure high quality and intercomparability of data – a vital feature for detecting climate change and developing global weather and climate models and related services;

(c) **Capacity-building** in NMHSs throughout the world;

(d) **Promoting science and technology** to transform leading-edge research into useful products and services;

(e) **International leadership** as the recognized leader in the United Nations System with respect to the monitoring and prediction of weather, climate, water and related environmental conditions.

The World Meteorological Organization will continue to rely on its Members, their NMHSs and national scientific institutions, other partners, such as the International Council for Science (ICSU), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Environment Programme (UNEP), professionals from universities and the private sector, and national financial contributions to provide the scientific, programmatic and infrastructure support necessary to implement a cost-effective international cooperation system. With the escalation of global societal needs, future weather, climate, water and related environmental products and services will require significant targeted improvements to:

(a) Allow for the delivery of user-oriented, timely, accurate and cost-effective products and services;

(b) Provide and promote the use of products and services to address the challenges of adaptation to climate variability and change;

(c) Enhance the effectiveness of services and reduce costs by promoting cooperation and partnerships nationally and internationally;

(d) Enhance the visibility of WMO Members and their activities through broader participation in international programmes and conventions;

(e) Assist countries in translating commitments, agreed within the framework of global conferences, summits and international conventions, into effective and practical measures.

STRUCTURE OF THE WMO STRATEGIC PLAN 2012–2015

Starting with the three global societal needs, the WMO Strategic Plan defines five Organization-wide strategic thrusts and eight expected results to achieve its vision (Table 1).

The eight expected results are further delineated by key outcomes and their associated key performance indicators to measure the success in achieving the results. Within the five strategic thrusts and eight expected results are the following five strategic priority areas that will make a significant contribution to the achievement of the expected results:

(a) Global Framework for Climate Services;

Three Global Societal Needs	Five Strategic Thrusts	Eight Expected Results
Improved protection of life and property (related to the impacts of hazardous weather, climate, water and other environmental events, and increased safety of transport on land, at sea, and in the air)	**Improving service quality and service delivery**	1. Enhanced capabilities of Members to deliver and improve access to high-quality weather, climate, water 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. Enhanced capabilities of Members to reduce risks and potential impacts of hazards caused by weather, climate, water and related environmental elements.
Poverty alleviation, sustained livelihoods and economic growth (in connection with the Millennium Development Goals), including improved health and social well-being of citizens (related to weather, climate, water and environmental events and influence)	**Advancing scientific research and application, as well as development and implementation of technology**	3. Enhanced capabilities of Members to produce better weather, climate, water and related environmental information, predictions and warnings to support in particular disaster risk reduction and climate impact and adaptation strategies.
		4. 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. Enhanced capabilities of Members to contribute to and draw benefits from the global research capacity for weather, climate, water and the related environmental science and technology development.
Sustainable use of natural resources and improved environmental quality	**Strengthening capacity-building**	6. Enhanced capabilities of NMHSs, in particular in developing and least developed countries, to fulfil their mandates.
	Building and enhancing partnerships and cooperation	7. New and strengthened partnerships and cooperation activities to improve NMHSs' performance in delivering services and to increase the value of the contributions of WMO within the United Nations system, relevant international conventions and national strategic issues.
	Strengthening good governance	8. An effective and efficient Organization.

Table 1. *Schematic representation of the structure of the WMO Strategic Plan 2012–2015*

(b) Aviation meteorological services;

(c) Capacity-building for the developing and least developed countries;

(d) Implementation of the WMO Integrated Global Observing System (WIGOS) and WMO Information System (WIS);

(e) Disaster risk reduction.

GLOBAL FRAMEWORK FOR CLIMATE SERVICES

The Global Framework for Climate Services (GFCS) is a major initiative for WMO. The Heads of State and Government, Ministers and Heads of Delegations at the World Climate Conference-3 (Geneva, Switzerland, 2009) decided to establish a Global Framework for Climate Services "to strengthen the production, availability, delivery and application of science-based climate prediction and services". The Framework will benefit from and contribute to the achievement of the outcomes of most of the eight expected results.

In addition to the pillars of observations and climate research, modelling and predictions, the Climate Services Information System and Climate User Interface Programme are two new components of the Framework (Figure 3). The progress made and systems developed by Members and their NMHSs over the years through the World Climate Programme will form the foundation for developing the GFCS.

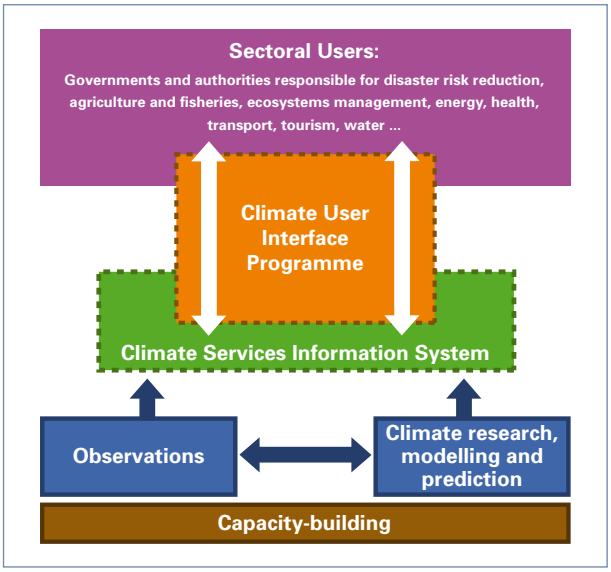


Figure 3. *Components of the Global Framework for Climate Services*

A detailed description of the other strategic priority areas is provided under the related expected results.

This Strategic Plan, while focused on the financial period 2012–2015, takes into consideration longer-term social, economic and technological issues facing the Organization. It also serves as the foundation for the WMO Operating Plan, the WMO Results-Based Budget and performance monitoring and evaluation activities, which together define the detailed deliverables, performance targets and allocation of resources to achieve the expected results.

STRATEGIC THRUSTS LINKING TO EXPECTED RESULTS, KEY OUTCOMES AND KEY PERFORMANCE INDICATORS

STRATEGIC THRUST 1: IMPROVING SERVICE QUALITY AND SERVICE DELIVERY

Despite improvements in the understanding and prediction of the global Earth system, societies, especially in developing and least developed countries, are still vulnerable to severe weather and extreme climate conditions. Hence, there is much more for WMO to do to assist countries worldwide to benefit from improvements in the quality of weather, climate, water and related environmental services, and also in their delivery. This will require collaborative efforts involving the providers and users of information to ensure that the needs of the users are integrated into the development of the products and to enhance feedback between the providers and users of information to make continuous improvements.

Strategic Thrust 1 has two expected results, one of which focuses on the provision of weather-, climate- and water-related services, while the other

addresses disaster risk reduction and aviation meteorological services as a strategic priority area. The scientific and technical programmes contributing to the achievement of these expected results include the World Weather Watch Programme (WWW), World Climate Programme (WCP), Aeronautical Meteorology Programme (AeMP), Agricultural Meteorology Programme (AgMP), Emergency Response Activities (ERA), Marine Meteorology and Oceanography Programme (MMOP), Public Weather Services Programme (PWSP), Tropical Cyclone Programme (TCP), Hydrology and Water Resources Programme (HWRP), Disaster Risk Reduction Programme (DRR) and WMO Space Programme.

Expected Result 1 addresses the rapidly changing paradigm for providing meteorological (weather and climate), hydrological and environmental services, which requires service providers to:

Understand how the information is used so that it can be tailored to the users' needs, for example through effective rolling reviews of client needs for products and services;

Integrate weather, climate, water and environmental information and products into decision-making.

Aviation Meteorological Services are a strategic priority area of focus under this expected result. The economic and social benefits that can be derived from air transport make it one of the world's most important industries. Air transport is a critical factor in world trade and plays a major role in the development of a globalized economy. As an economic catalyst for growth, air transport has a tremendous impact on the performance of regional economies, both through its own operations and as a key link in the value chain that supports other industries. Advances in air transport require that the delivery of services to the sector be improved with a view to promoting the safety, regularity and efficiency of international air navigation. Such improvements require more training of staff and upgrading of infrastructure.

The implementation of a quality management system (QMS) comprising procedures, processes and resources necessary to facilitate quality management of the meteorological information supplied to users is of paramount importance, as is the demonstration of competencies for aeronautical meteorological personnel, especially in developing and least developed countries.

Expected Result 2 addresses the need for NMHSs to be an integral component of multi-hazard national emergency management systems and to work with relevant sectors to develop products and information to support their specific needs for decision-making when responding to extreme climate, water and related environmental events.

Disaster risk reduction is a strategic priority area because of the negative impacts of natural disasters on the achievement of global societal goals. Weather-, climate- and water-related disasters continue to result in very high human and economic costs, and the displacement of large populations in many regions, particularly in developing and least developed countries. By developing a set of contingency measures based on weather, climate, water and related early warning systems, including environmental information and services, nations can save more lives and reduce economic losses associated with natural disasters.

STRATEGIC THRUST 2: ADVANCING SCIENTIFIC RESEARCH AND APPLICATION, AS WELL AS DEVELOPMENT AND IMPLEMENTATION OF TECHNOLOGY

Past scientific and technical advances have made significant contributions to improving weather, climate, water and related environmental information and services. Further scientific and technical advances are needed to increase the scope, accuracy and lead time of weather, climate, water and related environmental information and services. Advances are also needed to enhance the availability of comprehensive and robust information networks for improving the quality of services to address the many remaining challenges that have been exacerbated by population growth, greater use of marginal land areas and diversified human activities.

Strategic Thrust 2 contains Expected Results 3, 4 and 5, together with their key outcomes and performance indicators, and three strategic priority areas for implementation in 2012–2015. The scientific and technical programmes contributing to the achievement of these expected results are the World Weather Watch Programme, World Climate Programme, Agricultural Meteorology Programme, Hydrology and Water Resources Programme, World Weather Research Programme (WWRP), the WMO Space Programme, Global Atmosphere Watch Programme (GAW), and the co-sponsored World Climate Research Programme (WCRP) and Global Climate Observing System (GCOS).

Expected Result 3 addresses WMO activities to make its data, products and services more useful to society and relevant in day-to-day decision-making. Greater emphasis on sectoral applications, such as those in agriculture, water management and disaster risk reduction, will be essential in future products and services from NMHSs. The Global Framework for Climate Services (Figure 3) is a strategic priority area under Expected Result 3, especially as it relates to the two new pillars of the Framework, namely the Climate Services Information System (CSIS) and the Climate User Interface Programme. An important feature of the Framework is the close interaction between users and providers of climate information and products (in the form of the Climate User Interface Programme), with the value of the service being judged on its ability to improve decision-making. The CSIS will develop better climate information and prediction products from operational NMHS systems and disseminate them more effectively to meet user needs. The progress made and systems developed by Members and their NMHSs over the years through the World Climate Programme will form the foundation for developing the CSIS.

The priority in generating hydrological information and products will be enhanced quality, efficiency and effectiveness. Among the initiatives will be the preparation of guidance materials to expand the capacities of NMHSs, particularly in developing and least developed countries, to improve hydrological forecasting, water resources assessment and management, and adaptation to climate variability and change. WMO also will seek to mobilize resources for the improvement of hydrological networks in developing and least developed countries.

Expected Result 4 addresses improvements in three systems – WIGOS, WIS and a strengthened Global Climate Observing System,[1] which will facilitate improvements in the quality of climate data from the entire climate system to meet the needs of international, regional and national users of climate data and derived products. These activities will support the observational requirements of the GFCS, the Intergovernmental Panel on Climate Change (IPCC) and WMO Members in the provision of national climate services as they meet their obligations under various international conventions, such as the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD) and the Vienna Convention for the Protection of the Ozone Layer.

The **WMO Integrated Global Observing System** and **WMO Information System** are strategic priority areas under **Expected Result 4**.

Weather, climate, water and related observations gathered by NMHSs and partners form the foundation for the delivery of all services provided by NMHSs and for much of the research to improve our understanding of the Earth system, as well as its prediction and assessment. The Fifteenth World Meteorological Congress (Cg-XV, May 2007) decided to establish the WMO Integrated Global Observing System, a coordinated, comprehensive and sustainable system, to address in the most cost-effective way observational requirements of all WMO Programmes and partners, including those of the Global Earth Observation System of Systems of the Group on Earth Observations.

[1] GCOS is responsible for setting the requirements for climate observations and related data and products and for working with WMO components (NMHSs, technical commissions, regional associations) and its observing system partners (the Global Ocean Observing System (GOOS), the Global Terrestrial Observing System (GTOS), the Committee on Earth Observation Satellites (CEOS) and the Global Earth Observation System of Systems (GEOSS)) to improve climate observations for all observing system domains and from both ground-based and space-based systems.

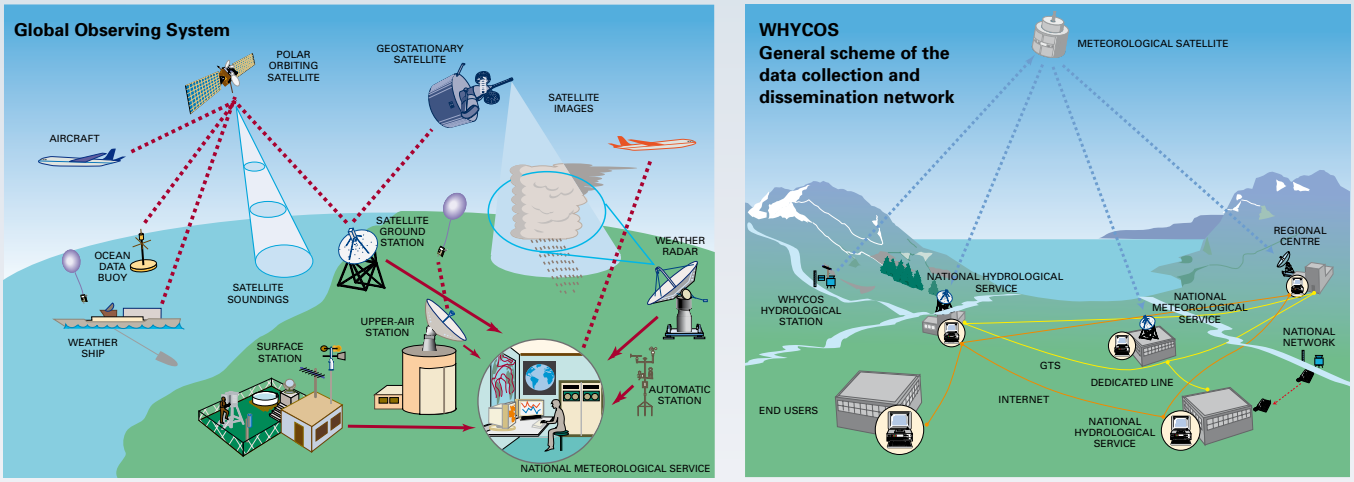


Figure 4. *The WMO Global Observing System (left), the World Hydrological Cycle Observing System (right), and the Global Atmosphere Watch form the foundation for establishing the WMO Integrated Global Observing System.*

WIGOS will enhance observing capabilities, data and product quality, and interoperability among WMO global observing systems, including the Global Observing System (GOS), Global Atmosphere Watch, World Hydrological Cycle Observing System (WHYCOS), and other observing systems co-sponsored by WMO (Figure 4).[2] The goal is to provide improved information and products to support decision-making at all levels.

[2] The systems co-sponsored by WMO are GOOS, GTOS and GCOS.

Cg-XV also decided to develop and implement WIS as a pillar of the WMO strategy to efficiently manage and move weather, climate, water and related environmental information and products into the twenty-first century. WIS provides an integrated approach, suitable for all WMO Programmes, to meeting the requirements for routine collection and automated dissemination of observed data and products, as well as data discovery, access and retrieval services for all weather, climate, water and related data produced by centres and Members within the framework of any WMO Programme.

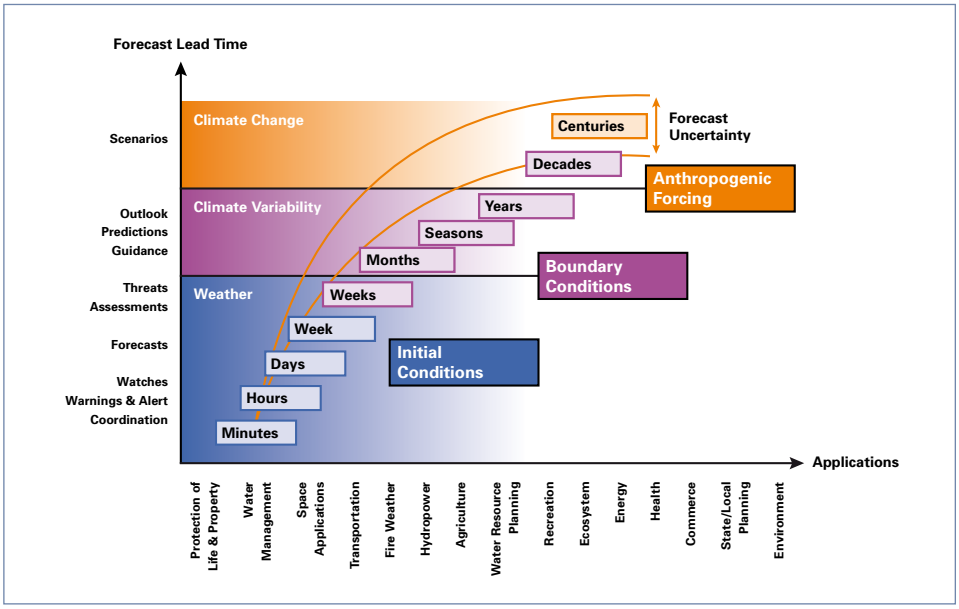


Figure 5. *Schematic diagram showing the challenges of developing "seamless" products and services, and the available climate information and gaps (Source: National Oceanic and Atmospheric Administration)*

Expected Result 5 addresses improvements in the prediction of weather and climate, and observations and assessments of atmospheric chemistry.

Future research will follow a balanced and seamless approach to weather, climate and water services, including the development of forecasts of a broader range of environmental parameters, such as air quality, sand- and duststorms, and changes in vegetation, to meet the needs of users and the urgent demand to reduce the vulnerability of communities. Figure 5 shows the challenges of developing "seamless" products and services, and the available climate information and gaps. The future approach to weather, climate and water research, predictions and services will:

(a) Entail a unified approach over multiple time and spatial scales, including a requirement for the downscaling of climate information;

(b) Invest in increasingly high-performance computing to accommodate the growing complexity and detail of models;

(c) Develop closer linkages among research, operations and users, for example, through Forecast Demonstration Projects (FDPs), to enable Members to rapidly operationalize research outputs for service delivery and to allow users to see rapid results from informed decision-making.

STRATEGIC THRUST 3: STRENGTHENING CAPACITY-BUILDING

The human resource and infrastructure capacity of an NMHS has a significant influence on the quality and delivery of services, and on the ease with which the users are able to interpret and integrate the services into decision-making. Despite continued improvements in science and technology, many NMHSs in developing and least developed countries often cannot take advantage of these improvements owing to inadequate infrastructure and a shortage of skilled personnel. Institutional capacity-building is needed to improve the ability to conduct targeted research; to support management, planning and policy development; and to develop communication skills to improve interactions between NMHSs and their clients, the media and governments.

Strategic Thrust 3 contains **Expected Result 6,** which encompasses the need to improve infrastructure and systems operated by NMHSs, as well as human resources, with special emphasis on the future development of multi-hazard warning and response systems and climate services to support the Global Framework for Climate Services. The scientific and technical programmes contributing to the achievement of this expected result include the World Weather Watch Programme, World Climate Programme, Tropical Cyclone Programme, Agricultural Meteorology Programme, Aeronautical Meteorology Programme, Education and Training Programme (ETRP), Hydrology and Water Resources Programme, the Regional Programme, the Least Developed Countries Programme (LDCP), as well as the Technical Cooperation Programme (TCOP), Disaster Risk Reduction Programme and WMO Space Programme.

Capacity-building for the developing and least developed countries is a strategic priority area in Expected Result 6 because it is critical to enhancing the capabilities and capacities of NMHSs to improve the quality and delivery of services, in cooperation with users in other governmental organizations, civil society, the private sector and intergovernmental groups. The main objectives of this strategic priority area are to:

(a) Focus particular attention on the education and training needs of NMHSs in developing countries, least developed countries and small island developing States with a view to addressing specific issues such as forecaster qualifications for aviation meteorology, the GFCS and disaster risk reduction;

(b) Increase awareness of the socio-economic benefits derived from products and services provided by NMHSs and regional centres, including their contribution to the achievement of the Millennium Development Goals, particularly by promoting gender equality and empowerment of women;

(c) Assist NMHS managers by supplying tools for building effective communication with governments, policy- and decision-makers, and development partners;

(d) Continuously assess and address NMHS training needs, including professional training and development, technical training, project development and management training;

(e) Expand the number of strategic partnerships with internal and external stakeholders;

(f) Support the above initiatives through enhanced resource mobilization.

Success in these efforts, especially in developing and least developed countries, will require cooperative efforts with Members and international and regional partners to mobilize resources from multiple extrabudgetary sources.

STRATEGIC THRUST 4: BUILDING AND ENHANCING PARTNERSHIPS AND COOPERATION

The complexity of the Earth system and the interconnections among weather, water, climate and related environmental processes and hazards are increasingly challenging the scientific and financial capacity of WMO to improve the quality and accuracy of information and products. No single government or agency has the necessary resources to address all the challenges on its own. Consequently, the Organization's success depends on its ability to establish partnerships and collaborate effectively with internal stakeholders and external organizations to address the global societal needs.

This strategic thrust focusing on partnerships is important in order to:

(a) Heighten the understanding and use of the environmental information and service capabilities of WMO by the United Nations system, WMO Members and international and national organizations, for example, in implementing the GFCS and other initiatives;

(b) Enhance partnerships with other major international scientific organizations in light of the increasing complexity and multi-disciplinary nature of the basic scientific issues involved in providing improved products and services;

(c) Enhance the ability of WMO to expand the scope of its information and products and to develop and sustain service improvements by leveraging the capabilities of partners;

(d) Broaden partnerships among developed, developing and least developed countries by bringing in relevant national agencies, such as emergency management authorities;

(e) Maintain a proactive role in ensuring a coherent, science-based approach within the United Nations System and among other stakeholders to support the implementation of environmental conventions, including agreements arising from World Summits and follow-up activities related to all relevant United Nations Conventions.

Strategic Thrust 4 contains **Expected Result 7**, which addresses the need to enhance cooperation and partnerships among national and international institutions to achieve the shared objectives. The scientific and technical programmes contributing to the achievement of this expected result are the World Weather Watch Programme, World Climate Programme, Aeronautical Meteorology Programme, Agricultural Meteorology Programme, Global Atmosphere Watch Programme, Hydrology and Water Resources Programme and Technical Cooperation Programme, together with the Intergovernmental Panel on Climate Change.

STRATEGIC THRUST 5: STRENGTHENING GOOD GOVERNANCE

Good governance promotes open and transparent processes and efficient and effective use of resources. It also increases accountability for resource expenditure linked to the achievement of expected results.

This strategic thrust aims to improve management of WMO as a whole by:

(a) Improving the efficiency and effectiveness of its governing and constituent bodies;

(b) Promoting open and transparent business processes, efficient and effective use of resources, and equitable treatment of all parties;

(c) Enhancing the efficiency of the WMO Secretariat;

(d) Ensuring the integrity of WMO management systems;

(e) Improving the connection between the Organization's strategic initiatives and programmes and its budget, through results-based management systems and practices;

(f) Conducting a comprehensive review of its structure, programmes and priorities and implementing the relevant findings;

(g) Managing its risk closely through development of an organizational risk profile, identification of its risk exposure and implementation of a risk prevention plan.

Strategic Thrust 5 contains **Expected Result 8**, which addresses the need to improve the efficiency and effectiveness of the Organization.

The management priority is focused on improving the efficiency, effectiveness and transparency of the programmatic and financial management of the Organization. This includes developing a visionary Strategic Plan, a clear and effective WMO Operating Plan and a WMO Results-Based Budget for the financial period 2012–2015, together with a monitoring and evaluation system. This effort will also enhance the effectiveness and efficiency of service delivery.

WMO OPERATING PLAN

The WMO Operating Plan translates the strategic thrusts, expected results and key outcomes into time-bound specific programme activities and projects, which are needed to address the global societal needs and achieve the expected results. The WMO Operating Plan is comprehensive in that it identifies the contribution of WMO Members, technical commissions, regional associations and the Secretariat. Starting with the key outcomes, it specifies the deliverables, programme activities and performance metrics to assess progress in achievement of the expected results. It encompasses activities of the eight WMO technical commissions (the Commission for Basic Systems (CBS), the Commission for Instruments and Methods of Observation (CIMO), the Commission for Hydrology (CHy), the Commission for Atmospheric Sciences (CAS), the Commission for Aeronautical Meteorology (CAeM), the Commission for Agricultural Meteorology (CAgM), the Commission for Climatology (CCl) and the Joint WMO-IOC Commission for Oceanography and Marine Meteorology (JCOMM)), the six regional associations (RA I (Africa), RA II (Asia), RA III (South America), RA IV (North America, Central America and the Caribbean), RA V (South-West Pacific) and RA VI (Europe)) and the Executive Council working groups, panels and committees. It forms the basis for resource allocation and monitoring and evaluation.

WMO RESULTS-BASED BUDGET

The WMO Results-Based Budget identifies regular resources that are needed to implement the Operating Plan, as well as voluntary resources for project initiatives that enhance key outcomes in priority areas.

The end result is a results-based budget containing the following:

A logical framework for informed budgetary decision-making, which provides the expected results, deliverables, programme activities and performance indicators, together with the required resources;

Resource justification by results, which is designed to optimize the use of resources and improve the Secretariat's responsiveness to meet Members' needs;

Performance measures incorporated into the budgetary decision-making process to gauge progress towards key performance targets against allocated resources.

The Results-Based Budget is approved by the Congress.

MONITORING AND EVALUATION

Monitoring and evaluation (M&E) are tools to measure the performance of the Organization in the timely implementation of its Strategic Plan. Monitoring and evaluation also contribute to the identification of good practices and lessons learned with respect to implementation, as well as policy, strategy and programmatic design that will inform the next phase of strategic planning. They provide information for ensuring the continuing effectiveness and relevance of the WMO Programmes. The evaluation results are important inputs to the strategic planning process and are used to adjust strategic direction and priorities, if required.

While monitoring is an ongoing function, evaluations are conducted annually and results are reported to the constituent bodies of WMO, in particular the Executive Council.

The M&E procedures and practices are defined in the WMO Monitoring and Evaluation System. WMO constituent bodies, Members and the Secretariat share responsibility for monitoring and evaluation of the implementation of the WMO Strategic Plan through the WMO Operating Plan and Results-Based Budget.

CONCLUSION

WMO is focusing its strategic direction for the period 2012–2015 on five strategic thrusts that address global societal needs and facilitate the achievement of eight expected results. Its Strategic Plan underscores the importance of improving service quality and service delivery by advancing scientific research and application, strengthening capacity-building, building and enhancing partnerships and cooperation, and strengthening good governance.

Within the strategic thrusts and expected results are five strategic priority areas of focus that will make a significant contribution to the achievement of expected results. Advancing these priorities offers great potential for improving weather, climate, water and related environmental products and services offered by the NMHSs; for enhancing the contribution of WMO and its Members to global initiatives; and for strengthening the capacities of NMHSs in all countries, especially developing and least developed countries, and their involvement in regional and global activities.

This Strategic Plan provides a clear path forward for the Organization to address the critical global societal needs agreed upon by Members. More information about WMO and its strategic planning process is available on its Website: www.wmo.int.

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