World Meteorological Organization
Organisation météorologique mondiale

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GENEVA, 10 May 2012

Annex: 1

Subject: United Nations Conference on Sustainable Development (RIO+20) to be held in Rio, Brazil, on 20-22 June 2012

Action required: (a) Representatives from NMHSs are urged to encourage their national delegations for Rio+20 to support WMO Programmes and initiatives as well as use of the Green Fund for infrastructure financing in the final declaration for Rio+20

(b) Take note of the annexed Position Paper for Rio+20

Dear Sir/Madam,

As you are aware, the United Nations Conference on Sustainable Development (Rio+20) will be held in Rio, Brazil, on 20–22 June 2012 and will lead to several outcomes, including a final declaration currently entitled "The Future We Want" to be issued at the end of the Conference. I wish to encourage you to participate in the Conference as a member of your national delegations. National Meteorological and Hydrological Services (NMHSs) have an important role to play in sensitizing their national delegation to support WMO strategic priorities, Programmes and initiatives as well as the use of the Green Fund for infrastructure financing, as all these are enabling features of sustainable development.

The Zero draft of "The Future We Want" declaration mentions several key areas pertinent to the Global Framework for Climate Services (GFCS), WMO Programmes, use of the Green Fund to finance regional infrastructure, disaster risk reduction and climate change adaptation for sustainable development.

NMHSs have an important role to play among national partners in contributions to sustainable development through provision of scientific and technical information for decision-making. In the area of climate variability and change adaptation strategy, in particular, their role is of paramount importance when it comes to providing reliable data and to facilitating broader understanding of climate information, products and services for adaptation. The GFCS will be an important tool to contribute to further developing and improving their capacities, and in creating more tailored climate information for dissemination to an ever-growing number of stakeholders.

To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO (PR-6640)

cc: Hydrological Advisers to Permanent Representatives)
President of technical commissions) (for information)

From poverty eradication, food security, sound water management, universal access to modern energy services, sustainable cities, management of oceans and improving resilience and disaster preparedness to public health, human resource development, WMO Programmes contribute to all. They also have an important role to play on issues relating to oceans, seas and small-island developing states, as well as in supporting the least developed countries (LDCs) in their development agendas, Human Rights implementation and conflict prevention strategies.

WMO recognizes the importance of strengthening the scientific, technological and innovation capacities of countries to promote sustainable development. However, further investments must be made into improving infrastructure at both national and regional and/or sub-regional levels as appropriate for observation, data management and processing, downscaling of climate predictions, to name but a few investment needs. The Green Fund should be used to support such infrastructure development that should accompany capacity development and would help scale up scientific and technical capabilities and use of technology transfer especially in developing countries.

I attach herewith a WMO Position paper entitled "Rio+20: Perspectives of the World Meteorological Organization (WMO)". It is my hope that the Paper can help in articulating relevant language about the role of weather, climate and water knowledge, operations and services in supporting sustainable development.

Yours faithfully,

(M. Jarraud)
Secretary-General

SG/CER/Rio+20, ANNEX

RIO+20: PERSPECTIVE OF THE WORLD METEOROLOGICAL ORGANIZATION (WMO)

Achieving the Millennium Development Goals and other internationally agreed development objectives depends on forming partnerships across geographical, political and disciplinary boundaries to address the challenges and opportunities. The Global Framework for Climate Services (the Framework) promises to coordinate efforts across the meteorological, hydrological, environmental, climatic and socio-economic communities. It is being developed by WMO in conjunction with the broader United Nations system and is a key mechanism for achieving the Millennium Development Goals. The Framework will harness climate services in support of development, thus contributing to an enhanced quality of life worldwide.

The Framework will promote science-informed use of climate information for sustainable development and environmental stewardship based on climate adaptation and disaster risk management as an integral part of overall United Nations-wide poverty alleviation strategies. It will strive for maximum cooperation to consolidate all possible synergies and to achieve the most efficient use of the skills and competencies available across United Nations Members and organizations.

This position paper outlines how, through the Framework, experts from various disciplines/regions will work together to develop science-based climate/environmental information tailored to end users' needs for the purpose of:

- Increasing agricultural productivity toward improving food security and reducing hunger;
- Improving and optimizing water resources management to provide sustainable access to fresh water resources for drinking, irrigation and household use;
- Reducing risks of disaster and other climate risks, the cost of which often sets back developing and least developed nations for years, aggravating extreme poverty; and
- Improving health conditions, especially for women and children, through enhanced preparedness against the spread of disease vectors.

Facing the challenges

Population growth, industrialization, globalization, increased demand for food, energy generation – human activities are straining our planet's limited natural resources. Climate change and environmental degradation are likely to place even further pressure on our ecosystems. Sustainable development – defined by the World Commission on Environment and Development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" – holds the promise for a better future for all.

The United Nations Conference on Sustainable Development (hereafter called RIO+20[1]), to be held in Brazil on 20–22 June 2012, aims to secure renewed political commitment for sustainable development, to assess progress to date in achieving the targets of Agenda 21[2] and to address new and emerging challenges. The WMO and the National Meteorological and Hydrological

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[1] The United Nations Conference on Sustainable Development (UNCSD) marks the 20th anniversary of the 1992 United Nations Conference on Environment and Development (UNCED), which took place in Rio de Janeiro (thus the popular name Rio+20), and the 10th anniversary of the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg.

[2] Agenda 21, an outcome of the 1992 UNCED, is a comprehensive blueprint of action to be taken globally, nationally and locally by organizations of the UN, governments and other major groups in every area in which humans directly affect the environment.

Services of its 189 Member States and Territories will work with the whole international community to realize the promises of, in particular, the Millennium Development Goals, with major focus on human health and development, to achieve "The Future We Want"[3].

Weather, climate and water influence all areas of human activity and societal progress. Climate information is critical for major decisions concerning, for example, new water supply reservoirs, plans and infrastructure for expanding settlements and economic policy targeting climate-sensitive industries such as tourism, renewable energy or aquaculture.

The delivery of tailored meteorological, climatological and hydrological information, products and services is increasingly important to ensure food security, improved water management, disaster risk reduction and better health. Other climate sensitive socio-economic sectors, including energy, transportation, tourism and urban planning, benefit from such tailored services.

Accurate and timely weather analyses and predictions, expanding to climate in the coming decades, will further improve human safety, prosperity and livelihood, and preserve precious natural resources. There are significant opportunities for substantial progress in this area, which will be of great benefit to the global community, especially the most vulnerable.

The Framework: Supporting Sustainable Development

In 2011, the World Meteorological Congress decided that implementation of the Framework – to provide operational global climate services to assist nations and peoples in decision-making based on accurate and credible scientific information – is a top priority for the years ahead. WMO engaged a wide range of stakeholders, including governments, the United Nations system and other international partners to develop an implementation plan that will ensure that the Framework has the broadest support.

The Framework is based on the philosophy that sustained capacity for management of the climatic risks today is the foundation for efficient management of the increasing climatic risks of tomorrow, which scientists have predicted will be greater in scope and magnitude as the consequences of humankind's effect on the environment are felt.

The provision of relevant climate information adapted to user needs requires much more than observing and recording data or even having in-depth understanding of climate systems and prediction models. It requires translation of the best available scientific knowledge into actionable and easy to use climate information for decision-makers. Partnerships across geographical, political and disciplinary boundaries are essential to achieve this. **Given the complexity and challenges of naturally occurring climate variability, amplified further by human induced climate change, it is beyond the capacity of any single country or institution to build such a service on its own**. Accordingly, the Framework will be based on a long-term cooperative arrangement through which the international community will work together to facilitate generation and access to climate information and services.

Implementation of the Framework will allow governments to capitalize on the billions invested in climate observation, research, modelling and prediction during the past 30 years and on the progress made in short- (e.g. days) to medium- (e.g. weeks) range forecasts by expanding to much longer (seasonal to decadal) ranges. This will yield significant benefits, with a large return on investment to those involved, initially in disaster risk management, improved water management, sustainable agriculture and health protection but ultimately across all economic sectors.

The Framework is being designed to be an effective, efficient and economically viable mechanism for the generation, delivery and application of climate information and services. It will build on, and

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3 "The Future We Want" is the provisional title of the Rio+20 final declaration.

strengthen, existing local, national, regional and global networks for climate observation, monitoring, research and modelling as well as operational structures and service programmes.

To meet its objectives, the Framework will require extensive collaboration among national and local governments, agencies, non-governmental organizations, civil society, the private sector, as well as universities and research institutions. As such the Framework will be supported by the entire United Nations system as well as other organizations.

The scientific and technical capabilities of all stakeholders will have to be improved. New capacities will have to be developed by reinforcing and aligning institutional arrangements; improving infrastructure and systems; and developing human skills and training. The national infrastructure for systematic collection of high-quality climate observations will have to be strengthened in many countries and regions. The maintenance of observation networks is critical, and will require financial support from governments. The Green Fund should be used for such essential regional infrastructure investments.

Sustaining Capacity Building in Developing Countries

Where they exist, climate services are very effective for disaster risk reduction management and for improving decision-making. They are used in a range of sectors including agriculture, water management, health, tourism, urban planning and energy. **There is currently a wide gap between the needs for climate services and their provision, especially in climate-vulnerable developing countries/regions**. A High-level Taskforce concluded that about 70 developing countries have very few or almost no climate services and, therefore, insufficient information to support national development priorities, exposing them to the negative impacts of extreme weather/climate conditions which result in decreased Gross Domestic Product (GDP) and other setbacks.

The Framework aims to strengthen institutional capacities and enabling environments for adaptation, including for climate-resilient development and vulnerability reduction. The research sector in developing countries will also need to be enhanced through capacity-building efforts to speed up the rate at which research results flow to services and to enhance the quality and relevance of climate services.

The level of services provided by National Meteorological and Hydrological Services can be categorized as follows:

- Category 1: Providing basic climate services;
- Category 2: Providing essential climate services;
- Category 3: Providing full climate services; and
- Category 4: Providing advanced climate services.

The aim of capacity-building at WMO is to enhance the capability, knowledge and resources of National Meteorological and Hydrological Services in developing and least developed countries to enable them to provide better weather and climate services.

Global sharing of knowledge and data improves the quality and availability of data and forecasts worldwide. Unified standards and the assurance of data quality enable National Meteorological and Hydrological Services to make better predictions about weather and climate. Better predictions in turn help in disaster preparedness, in improving health conditions and in increasing agriculture yields which contribute toward food security, among many others benefits, improving people's lives. Early warnings and risk reduction for weather- and climate-related natural hazards and disease outbreaks are prominent examples of the intended results of WMO capacity-building efforts.

The Framework will boost the availability of climate information for users to plan ahead and to take decisions that are sustainable in a changing climate. It will close the gaps in the provision of climate information and services. It will serve as a permanent platform for dialogue between providers of climate services – principally National Meteorological and Hydrological Services – and users.

Contributing to Climate Change Adaptation

WMO and National Meteorological and Hydrological Services work in partnership with relevant global and regional institutions to devise sector specific tools with applications to adaptation that add value to raw climate data. To be more effective, better international cooperation and frameworks for information exchange and service provision is required. WMO contributes to knowledge and expertise for adaptation to ensure that it is guided by the best available science.

The current efforts under the United Nations Framework Convention on Climate Change (UNFCCC) have been successful in bringing adaptation forward on policy agendas and making it one of the building blocks for a strengthened future response to climate change. WMO will make every effort for an operational implementation of the Framework that will contribute to:

- Vulnerability assessments;
- National adaptation plans;
- Enabling policy environments;
- Arrangements for sharing knowledge (e.g. through regional centres and the UNFCCC's Nairobi Work Programme; and
- Tools for risk reduction as well as risk transfer and sharing, such as insurance.

The Role of Information and Communication

Weather, water and climate know no borders and effective services to users, economic sectors and the public at large depend on the exchange of all available information. WMO is strongly committed to the promotion, coordination and support of implementation of information and communication technology for improving the global, regional and national production, exchange and distribution of information and warnings on weather, climate and water.

The setting up of the WMO Information System is one of the Organization's major objectives. The availability of information technology has a key role to play in fostering access to weather, climate and water information and services for the safety of life and property, and hence for sustainable development.

Empowering Decision-Makers with Sound Climate Information

The above examples demonstrate how information about weather, climate and water can be used in every aspect of socio-economic activity thus contributing to achieving the Millennium Development Goals. Such information is increasing in importance as more numerous and more severe disasters strike, destroying lives and livelihoods and setting back the economies of the most vulnerable countries. The provision of that information requires high-level commitment among nations and support to international cooperation.

Science-based climate information is an important foundation for adaptation, mitigation, technology development, capacity-building and finance. It plays a crucial role in national development planning, for managing development opportunities and risks and for mitigation and adaptation. Recent advances in science and technology offer the prospect of further improvements in the quality of climate information and prediction provided by National Meteorological and Hydrological Services.

The Framework will be systematically implemented to enable all countries to manage climate risk more effectively. Current capacity-building activities to support climate services need to be scaled

up and better coordinated. A comprehensive capacity-building initiative is needed to strengthen existing capabilities in the areas of governance, management, human resources development, leadership, partnership creation, science communication, service delivery and resource mobilization.

Development of knowledge and tools for decision-making related to adaptation to climate change can be best achieved through close collaboration among the climate service providers and users in these sectors. Where they already exist such networks need to be broadened and extended to others through close partnerships with various United Nations agencies and programmes. This will increase the capacity of National Meteorological and Hydrological Services to provide sector specific climate services. The WMO community's network and information sharing capacity can further the adaption efforts of other intergovernmental agencies and facilitate capacity-building in developing countries.

To move the Framework forward stakeholders are urged to coordinate with their national delegations to make sure it is included in country statements and that calls for its financial support are strengthened. Promotion of the Framework plan and priorities is the uppermost focus of WMO, which will advocate for the Framework priorities with National Meteorological and Hydrological Services and all partner funding organizations in order to create opportunities for greater support for implementation of the Framework.

The implementation of the Framework will provide widespread social, economic and environmental benefits through the provision of focused climate services for more effective climate and disaster risk management. Services such as agrometeorological forecasts, disease-spreading forecasts, advanced warning for floods and droughts will support specific adaptation measures at the community levels. Through the Framework, the United Nations system will further support Member states in implementing their commitments related not only to the Millennium Development Goals and beyond, but also all global commitments of the Rio+20 final declaration.

Weather forecasts and climate predictions and projections should be made readily accessible to all users.

Action/Invitation: We invite the Rio+20 participants to become active participants in the Framework and support the implementation of its priorities to the benefits of their nations and citizens around the world.