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**The Global Framework for Climate Services (GFCS): Key messages**

# Key messages for advocating the GFCS

## Background: What are climate services?

As the effects of climate change are becoming more evident and acute, the need for effective climate services is becoming acute. A climate service is considered here to be the provision of climate information in such a way as to assist decision-making by individuals and organizations. While there are many initiatives underway providing climate services, these initiatives must be coordinated, complemented and made more accessible. Most importantly, they must respond to the needs of the people for whom they are intended and help those most at risk. Climate services offer science-based information and forecasts that empower decision-makers to manage the risks and opportunities of climate variability and climate change.

**Key Messages:**

* Climate services underpin climate action and adaptation in climate-sensitive sectors

Seasonal and multiyear climate forecasting has advanced to the point where it can now provide actionable information (i.e. seasonal forecasts (monthly, tri-monthly, six-monthly), multi year forecasts from one year up to ten years, El Niño updates, climate watches, state of the climate reports etc.). Growing confidence in climate forecasts has been made possible by advent of high speed telecommunication systems, supercomputer-based modelling, improved observations from satellites and other instruments, and a greater understanding of large-scale climate patterns such as the El Niño-Southern Oscillation. Similarly, scenarios of future climate change based on increasingly reliable models can be used to guide investments and strategies for the coming decades.

Sophisticated climate services combine climate forecasts with information from other sectors to inform decisions on public health, agriculture, water management, disaster risk and other climate-sensitive sectors. By combining this information, sectoral products can be derived such as food security outlooks, malaria outlooks etc. For example, forecasts of drier-than-average periods in the Sahel can be integrated with information about a population’s health and maps of available health facilities to support the timely roll-out of vaccines ahead of a meningitis outbreak. A monsoon forecast plus information on past cropping decisions and market trends can support decisions on food security. Scenarios of future sea-level rise combined with population trends can shape long-term investments in coastal housing and infrastructure.

## The Global Framework for Climate Services (GFCS)

The international community established the GFCS to promote operational climate services at the national and regional levels. The GFCS aims at facilitating the development and use of services to ensure that best efforts are made to reduce the impacts of climate-related disasters and to adapt to climate change. It will catalyze a paradigm shift from supply-driven service provision to the creation of services driven by user needs, by orienting scientific research towards practical applications to respond to those needs. Building on past and current climate service initiatives, it will enable new services to be developed to increase the value and access to climate knowledge products for those who need them the most.

This intergovernmental partnership is supported by United Nations and other international organizations with diverse, cross-cutting mandates and competences. It is overseen by an Intergovernmental Board on Climate Services (IBCS), which reports to the World Meteorological Congress. The Framework’s contribution to climate change adaptation and resilience has been recognized by the Parties to the United Nations Framework Convention on Climate Change (i.e. Decision 3/CP.18 recognized the relevance of GFCS for the Loss and damage workprogramme).

While the use of climate information and forecasts is growing rapidly, some 70 developing countries still lack the resources and expertise they need for their citizens to benefit from climate services. The GFCS assists these countries to strengthen the needed capacities to effectively develop and use climate services. It also promotes international collaboration, the pooling of resources and expertise, and the sharing of best practices.

The GFCS has mobilized support from donor countries and partner institutions to advance the use of climate services around the world. Recent activities include the Climate Services Adaptation Programme in Africa; projects in Haiti, the Caribbean and Asia; and a series of national and regional consultations.

# Sector Specific Messages

## Disaster Risk Reduction: ”Climate Services for safer communities”

Climate services provide critical information for prevention, preparation, contingency planning and development planning. This includes improving risk assessments with forward looking modeling and forecasting of hydro-meteorological hazards. Collaboration between meteorological and emergency services has already led to greatly improved early warning systems and preparedness; as a result, since the mid-1950s global losses of life from natural hazards have decreased by a factor of ten. Climate services will assure that this continues.

Example: Climate products and services can assist land use and city planners in developing policies and action plans that can strengthen resilience in the face of natural disasters. The design and siting of critical infrastructure can be enhanced by effective use of climate information and services that would integrate forward looking trends associated with the occurrence of extremes.

## Agriculture and Food Security: ”Climate Services for improved agricultural planning and management”

Agriculture and food security are closely linked to weather and climate conditions and can be negatively affected by extreme events such as droughts, heat waves, floods and storms which can lead to crop failure, food insecurity, ruined livelihoods, mass migration of people, and reduced national economic growth. Climate services make it possible to incorporate climate information into practices and policies for supporting agriculture and food security.

Example: Thanks to predictions about temperature and rain trends, farmers can make better planting, cropping and marketing decisions. As seasonal variability has a huge impact on agriculture and food security, seasonal climate outlooks are invaluable tools for deciding which varieties to plant and when, the best time to spray during periods when plant disease outbreaks are likely to occur, and for estimating the quantity of water needed for irrigation and livestock in drought-prone regions.

Climate information is also useful to fisheries as changes in temperature have consequences on the distribution patterns of fish migration. Climate change affects the reproduction and growth of oceanic fish species and may also impact cyclical changes in marine ecosystems. Long-term records of the abundance of most fish species are limited and need to be improved in order to determine abundance trends.

## Health: ”Climate Services to reduce the impact of diseases”

Climate services can provide the information needed to anticipate the incidence of diseases influenced by climate, such as malaria, meningitis and waterborne diseases. This enables public health services to provide warnings and undertake contingency planning to reduce the impact of diseases.

Example: Appropriate climate products can increase our understanding of how environmental and climate factors influence the timing and location of increased health risk. Public health authorities use climate forecasts to estimate and respond to the possible health consequences of extremes such as droughts, heatwaves and floods.

## Water: ”Climate Services to improve water management”

Climate services underpin the planning and management of surface water supplies and disaster risk reduction. They are essential for calculations regarding the frequency and duration of heavy rainfall, the probable maximum precipitation, low-flow and flood forecasting and water resources assessment. Such data, collected on weekly, seasonal and annual timescales and at national, regional and local levels, and shared with stakeholders at all levels are now more essential than ever to develop operational water management strategies, including flood and drought preparedness and response.

Example: The design of water infrastructure such as dams, irrigation systems, flood protection systems, etc., must integrate information on forward looking trends of extreme events. At the operational level, water resources managers use climate information to optimize water supply, flood management and generation of energy.

# Key messages for the Post 2015 Major International Processes (and their implementation)

## GFCS and the Post 2015 DRR Framework: “Build climate resilience through climate services”

Emergency response must be further complemented by efforts to build climate resilience and prevent disasters from happening in the first place. This means looking beyond the next flood or storm to understand long-term climate vulnerabilities. It means helping society to prepare for and adapt to future weather extremes and other climate impacts. Sophisticated climate services combine climate predictions with information from key sectors such as health and urban planning to inform decisions on disaster risk reduction and other priorities.

**Key Messages for Sendai:**

* Climate services contribute to enhancing disaster preparedness for effective response, and to build back better
* GFCS provides a vehicle for coordinating support to countries in implementing the Post 2015 DRR Framework

Harnessing the current scientific advances to increase the availability and accuracy of user-friendly climate services can help countries and communities, especially the most vulnerable, adapt to climate variability and climate change through GFCS. The GFCS is being implemented by governments with support from WMO and its partners within and outside the United Nations system.

Climate variability and change is a recognized driver of disaster risk. Climate services, provided in an appropriate and timely fashion, inform risk assessments required for risk informed development decisions. Investments in strengthening national capabilities to develop and apply climate information should be considered as an integral part of national risk reduction and resilience and should therefore be prioritized.

**Key Messages for Sendai negotiations**:

* ***“Climate services contribute to enhancing disaster preparedness for effective response, and to build back better”***

IMPORTANT NOTE: GFCS is included in the Zero Draft of the Post 2015 DRR Framework as of 28 January in the *Priority 4: Enhancing disaster preparedness for effective response, and to Build Back Better in recovery, rehabilitation and reconstruction* (in paragraph 32 (c)). Delegates attending the final negotiations in Sendai may want to advocate for keeping the text on GFCS in the final Post 2015 DRR Framework.

The specific text is in paragraph 32 (c):

(c) Promote the further development of and investment in effective, nationally-compatible, regional multi-hazard early warning mechanisms, where relevant, in line with the Global Framework for Climate Services, and facilitate sharing and exchange of information across all countries;

* ***GFCS provides a vehicle for coordinating*** multi-stakeholder support of sufficient scale and scope to enable a set of selected countries to achieve significantly improved risk reduction and development outcomes consistent with the expected outcome of the Post 2015 DRR Framework.

## GFCS in the Post-2015 Development Agenda: “Climate Services for sustainable development”

The Rio+20 Conference agreed to launch a process to develop a set of Sustainable Development Goals (SDGs), which will build upon the Millennium Development Goals and converge with the post 2015 development agenda.

**Key Messages for SDGs negotiations:**

* Climate services provide the evidence base for implementing and monitoring SDGs (see below)
* GFCS is a UN partnership which provides a “means for implementation” of SDGs

The Open Working Group proposal for SDGs calls for poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development as overarching objectives of and essential requirements for sustainable development.

The GFCS can provide an evidence based approach for both implementing and monitoring progress by countries in the implementation of the SDGs.

The GFCS can contribute to various SDGs namely:

* Goal 1. End poverty in all its forms everywhere
* Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
* Goal 3. Ensure healthy lives and promote well-being for all at all ages
* Goal 6. Ensure availability and sustainable management of water and sanitation for all
* Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
* Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
* Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
* Goal 13. Take urgent action to combat climate change and its impacts
* Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

**Key Messages for SDGs negotiations:**

* ***Climate services provide the evidence base for implementing and monitoring SDGs*** as they combine climate information and sectoral data into products that can inform decisions in various economic sectors to address SDGs and achieve targets. Climate services can support SDGs monitoring as they can provide long-term records of climate change impacts on sectors.
* ***GFCS is a UN partnership, spearheaded by WMO, which provides a “means for implementation” of SDGs***

IMPORTANT NOTE: Relevant upcoming Intergovernmental Negotiations on Post-2015 Development Agenda:

* Expert group meeting on the indicator framework for the Post-2015 Agenda, February, 25-26 (NY)
* Intergovernmental Negotiations on Post-2015 Development Agenda - 3rd Session (Sustainable development goals and targets), March, 23-27 (NY)
* **4th Session (Means of implementation and global partnership for sustainable development), April, 20-24 (NY) – most important**
* Intergovernmental Negotiations on Post-2015 Development Agenda - 5th Session (Follow-up and review), May, 18-22 (NY)
* Intergovernmental Negotiations on Post-2015 Development Agenda - 6th Session (Intergovernmental negotiations on the outcome document), June, 22-25 (NY)
* Intergovernmental Negotiations on Post-2015 Development Agenda - 7&8th Session (Intergovernmental negotiations on the outcome document), July, 20-31 (NY)
* UN Summit for Adoption of Post-2015 Development Agenda, September, 25-27 (NY)

ANNEX: GFCS priority areas versus SDGs

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|  | Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture |
|  | Goal 3. Ensure healthy lives and promote well-being for all at all ages |
|  | Goal 6. Ensure availability and sustainable management of water and sanitation for all |
|  | Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation  Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable |

Table 1- GFCS priority areas and SDGs