



## **WORLD CLIMATE CONFERENCE – 3**

### **31 August – 4 September 2009, Geneva, Switzerland**



### **Global Framework for Climate Services**

#### **BRIEF NOTE**<sup>\*</sup>

*The World Climate Conference – 3 proposes to create a Global Framework for Climate Services through which the developers and providers of climate information, predictions and services, and the climate-sensitive sectors around the world, will work together, to help the global community better adapt to the challenges of climate variability and change. This BRIEF NOTE presents an overview of the Framework, by answering a series of key questions.*

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#### **Why is a Global Framework for Climate Services Necessary?**

1. Many socio-economic sectors, including water, agriculture, fisheries, health, forestry, transport, tourism and energy, are highly sensitive to weather and climate extremes such as droughts, floods, cyclones and storms, heat waves or cold waves. Decision-makers in these sectors are increasingly concerned by the adverse impacts of climate variability and change, but are not sufficiently equipped to make effective use of climate information to manage current and future climate risks as well as ecosystems. Consequently, there is not only an urgent need for enhanced global cooperation in the development of accurate and timely climate information but an

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equally urgent need for its exchange between the providers and users of climate services, thus ensuring that relevant climate information is integrated into planning, policy and practice at various levels.

2. Recent advances in science and technology offer the prospect of further improvements in quality of climate information and prediction services. Integrating seasonal to multi-decadal predictions and long-term climate projections into decision-making in all socio-economic sectors, through an effective two-way dialogue between providers and users on the range, timing, quality and content of climate products and services, will ensure that decisions relating to managing climate risks are well informed, more effective and better targeted.

3. In order to address the need for improved climate information and to provide an effective interface between scientists, service providers and decision-makers, the World Meteorological Organization (WMO) and its partner organizations for the World Climate Conference-3 propose the development of a new Global Framework for Climate Services (also referred to as the 'Framework') with the goal to:

***“Enable better management of the risks of climate variability and change and adaptation to climate change at all levels, through development and incorporation of science-based climate information and prediction into planning, policy and practice.”***

### **What is the Global Framework for Climate Services?**

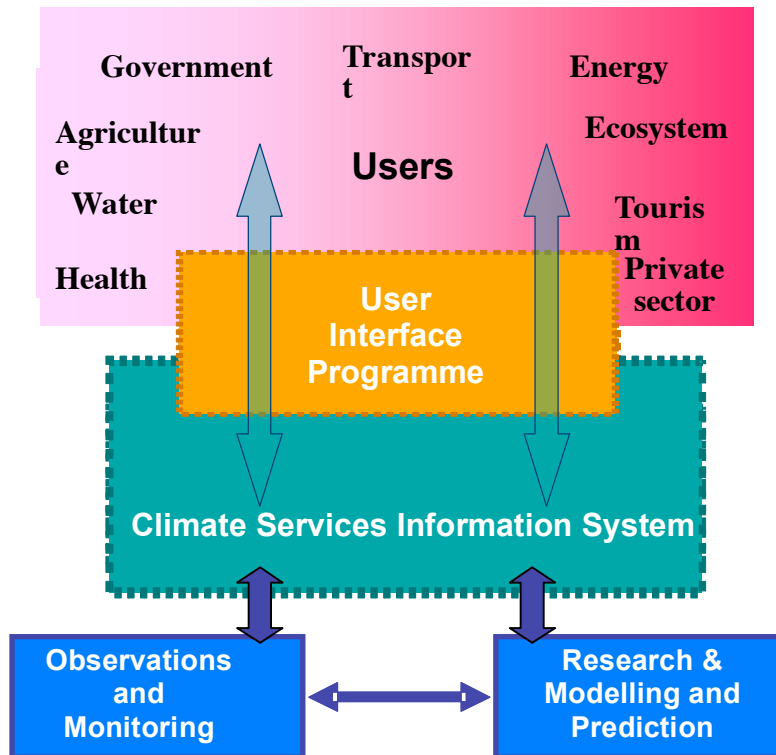
4. The Global Framework for Climate Services is proposed as a long-term cooperative arrangement through which the international community and relevant stakeholders will work together to achieve its stated goal.

5. The Framework will have four major components: Observation and Monitoring; Research, and Modelling and Prediction; a Climate Services Information System; and a User Interface Programme (Fig. 1). The first two components are well established but are in need of strengthening. The latter two components together constitute a 'World Climate Service System'.

6. The User Interface Programme, which presents a relatively new concept, will develop ways to bridge the gap between the climate information being developed by climate scientists and service providers and the practical information needs of users. Recognizing that the needs of the user communities are diverse and complex, it will



support and foster necessary institutional partnerships, cross-disciplinary research,



**Figure 1: Components of Global Framework for Climate Services**

innovation, development of decision support tools and climate risk management practices, generation and capture of knowledge, evaluation and establishment of best practices, education, capacity building and service application for decision making. The outcomes of the User Interface Programme will be reflected in the operational services of the Climate Services Information System.

7. The Climate Services Information System (CSIS) will build on established global programmes such as the World Climate Programme and will reinforce, strengthen and better coordinate the existing institutions, infrastructure and mechanisms but importantly, will focus on user-driven activities and outputs, while continuing to implement science- and technology-driven ones.

8. The CSIS, through a network of global, regional and national institutions, will synthesize information streaming from the Observation/Monitoring and Research/Modelling components of the Framework, and will create information, products, predictions and services in an operational mode at various spatial scales.



These services will be enhanced by feedback from users and other components of the system, and by the outputs of the User Interface Programme, thereby ensuring the development and delivery of **user-oriented** climate information and prediction services. It will focus, in addition, on standardization, exchange and quality assurance of information and communicating the highest quality information, products and services possible to decision-makers from global to local scales. Through enhanced international cooperation for development and transfer of technology related to meteorological services and mobilization of resources, this System will also build capacity among national and regional meteorological service providers in developing and least-developed countries, whose contributions are essential for improved climate information products at global, regional and national scales.

### **What will be achieved through Global Framework for Climate Services?**

9. The Framework, when fully implemented, will support disaster risk management and climate risk management practices, and will contribute to achieving the objectives of various Multilateral Environmental Agreements (MEAs) such as the United Nations Framework Convention on Climate Change (UNFCCC), and of internationally agreed upon goals including the Millennium Development Goals. Effective implementation of the four components of the Framework would lead to the following:

- Strengthened local, national, regional and global observational networks and information management systems for climate and climate-related variables ;
- Enhanced climate modeling and prediction capabilities through strengthened international climate research focused on seasonal to decadal timescales;
- Improved national climate service provision arrangements based on enhanced observation networks and prediction models, and greatly increased user interaction;
- More effective use of global, regional and national climate information and prediction services by all stakeholders in climate-sensitive sectors in all countries (leading to improved planning and investment in sectors vital to national economies and livelihoods); and thereby



- Widespread social, economic and environmental benefits through more effective climate risk management and increased capacities for adaptation to climate variability and change.

### **Who will participate in the Global Framework for Climate Services?**

10. The Framework will build on and strengthen existing local, national, regional and global networks of climate observation, monitoring, research, modelling and service programmes, including those of WMO. It aims to achieve its goal through the enhanced role and involvement of national meteorological services and regional/global centers, as well as greater participation of other stakeholders and centers of excellence across relevant socio-economic sectors, particularly those in developing countries, Least Developed Countries (LDCs) and Small Island Developing States (SIDS).

11. To meet its objectives, the Framework would require extensive collaboration among national and local governments, agencies, non-governmental organizations, civil society, the private sector, as well as universities and research institutions around the world and outreach to communities in all socio-economic sectors benefiting from the application of climate data and information in planning, policy and practice. This outreach will be facilitated through participation of relevant organizations and institutions in coordination with governments. Implementing and operating the Framework will therefore require continuation and enhancement of the broad collaboration and partnerships, centered around these entities, which underpin and improve on its technical strengths. As such the Framework will be supported by the entire United Nations System and other organizations.

### **What are the Next Steps in Developing a Global Framework for Climate services?**

12. Taking into account the outcomes of WCC-3, the Framework will be further developed under the guidance of an *ad hoc* taskforce consisting of high-level independent advisors, with inputs from a broad-based network of experts and in consultation with governments, partnering organizations and relevant stakeholders. The outcomes of the fifteenth session of the Conference of the Parties to the UNFCCC (COP 15), as well as the special requirements and vulnerabilities of developing countries, especially least developed countries and small island



developing States, will also be taken into consideration in further development of the Framework.

13. An Action Plan with timelines for establishment and implementation of the components of the Framework will be developed along with measurable indicators for the progress in the implementation of the framework. It will also address aspects of governance and resource requirements. The Action Plan would also address the development, deployment and transfer of technology and capacity building of meteorological services in developing and least developed countries.

### **How will the Global Framework for Climate Services be supported?**

14. The *ad hoc* taskforce to be established to further develop the Framework following WCC-3 will examine and make proposals on resource implications related to the implementation of the Framework and the cooperation of governments, organizations, institutions and relevant stakeholders in the mobilization of resources.

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\* Background paper prepared by WMO secretariat, dated 2<sup>nd</sup> September, 2009