

# **Draft Keynote Speech**

**Delivered by**

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**On the occasion of the**

**Side event at COP22 organized by UN-Water**

## **“Hydro-Climate Services for All”**

**Co-hosted by the UNECE, UNESCO, UN-ESCWA and WMO**

**22nd session of the Conference of the Parties to the UNFCCC (COP 22)**

**Marrakesh, Wednesday, 9 November 2016, 18:30 – 20:00**

***Towards a Global Architecture for***

***Water, Security and Peace to Help Achieve***

***SDG 13 (climate) and SDG6 (water)***

***Strengthen resilience and adaptive capacity to climate-related hazards  
and natural disasters in all countries.***

Dear colleagues, Ladies and gentlemen

It is a great privilege to address you today at this Side event at COP22 on **Hydro-Climate Services for All**, organized by UN-Water.

Hydrological, meteorological, and related conditions affect everyone on the planet. The informed use of hydrological, meteorological and related information can deliver enormous benefits to society.

Reliable information on water, weather and climate enables individuals, households, organizations, businesses and governments to take decisions which reduce the impacts of natural hazards, enhance the safety and convenience of daily life, address the challenges of public health and poverty alleviation, strengthen national economies, and protect the environment.

Sharing of hydro-climate data and information is a prerequisite for water cooperation and to inform adaptation to climate change, to ensure economic prosperity, foster resilience, create trust, and enhance security and peace.

### **Global water and climate challenges**

However, water scarcity is growing rapidly, not least as a result of climate change. In many parts of the world, a mounting global water deficit poses a growing threat to the economic, social and political gains of development.

In its 2016 Global Risks report, the World Economic Forum has ranked the failure of climate change mitigation and adaptation as the risk with the greatest potential impact, while water is the global risk of highest concern for the next 10 years. Climate change will exacerbate water crises, with impacts including conflicts and more forced migration, calling for improved water governance to adapt to climate change.

Indeed, this vital resource is facing unprecedented challenges, and is more and more linked to insecurity at local, regional and global scale; this is

illustrated by growing tensions around large dams, mining operations and various disputes over land and water. Competition for scarce water will become a more common source of instability and conflict within countries and between sectors, especially as climate change increases the severity and frequency of extreme weather events.

As a recent World Bank report details, changes in water availability and variability could reduce economic growth by as much as 6% of GDP in certain regions, inducing migration, and potentially igniting civil conflict, further fueling potentially destabilizing migration. Food price spikes caused by droughts can inflame latent conflicts and drive migration.

Fortunately, a number of countries, such as Morocco have shown that, with sound water governance leading to smart water policies and interventions, a climate-resilient, water-secure future can be ensured. There is increasing recognition that water will play a central role in mitigating and adapting to climate change – indeed 80% of climate change impacts will be channeled through water. Many inspiring examples such as the Senegal River Basin have demonstrated the power of water as an instrument of peace and security.

Indeed, water can be a source of tension and instability. Competition over water can cause or fuel conflicts, and water crises often add to the fragility of countries. But there is a second reality that we should emphasize much more: there is enormous potential for transforming water from a source of crises to a source of cooperation and peace – the interlinkages between water, peace and security are at the core of the agenda of the High-Level Panel on Water and Peace of which I'm a member.

### **The role of Hydro-Climate Services**

A Hydro-Climate service provides water and climate information in a way that assists decision making by individuals and organizations. A service requires

appropriate engagement along with an effective access mechanism and must respond to user needs.

Hydro-Climate services are key to the world's efforts to achieve a water-secure world for all and to urgently take action to combat climate change and its impacts. Indeed, it is crucial to provide integrated information on climate and water that is meaningful and relevant to all persons, including the most vulnerable, and to those who provide food, water, sanitation, energy, health and other critical services to society.

Data and information sharing at the river basin level is important for river basin planning, water management and to make informed decisions about adaptation to climate change. Considering that there is often very limited information available on climate change and its impacts at the river basin scale, the role of basin institutions is a highly crucial one. Climate change adds urgency for improved water management, especially against the background of the long lifetime of key water infrastructure, which is in turn an essential element for adaptation to and mitigation of climate change.

Hydro-Climate services lead to better operational hydrology and water resources management outcomes and, most importantly in a world where tensions and conflicts are rising, help increase trust across borders – the foundation of hydro-diplomacy. Indeed, water and climate data and information management is often the starting point of cooperation at the river basin level and the major strength of a number of River Basin Organizations.

Appropriate and effective hydro-climate services can help to close the communication gap and information gap between the water and climate communities as well as scientists, policy makers, negotiators and service providers. Needs-based hydro-climate services are extremely effective in helping farmers, communities, businesses, organizations and governments to manage the risks and take advantage of the opportunities associated with the

climate. Access to this information is essential to help decision-makers to ensure that all persons have access to affordable quality water and adequate to meet their basic needs and realize their right to water and sanitation.

Sophisticated hydro-climate services combine climate forecasts, information from water and other sectors to inform decisions on public health, agriculture, energy and disaster risk reduction. If applied with the vision that no one will be left behind they can be an important means to strengthen resilience to climate impacts, prevent loss of lives and livelihoods, and reduce inequality.

For example, forecasts of drier than average periods in the Sahel can be integrated with basin-level models for estimating effects on water demand and supply. A monsoon forecast, coupled with information on water resources and past cropping decisions can support decisions on food security. Scenarios of sea-level rise combined with population trends can inform urban planning and investments in housing and infrastructure, which need to be designed not only to adapt to but also to mitigate climate change.

### **Towards political action for improved hydro-climate services**

Ensuring hydro-climate services work for people also requires that sufficient technical and financial capacity is dedicated to cooperation and coordination across the meteorological, water and agricultural communities of practice. Unfortunately, many countries are unable to provide accurate, timely, and coherent information and forecasts that meet user needs across the numerous socioeconomic sectors that would benefit from such products and services.

Although important advancements with regard to data and information sharing have been made in a number of river basins, it remains a challenge in many others. Data on water and climate remain scarce, fragmented, and frequently difficult to access and interpret. Traditional monitoring and management is too often a story of failures and inefficient investments. Particularly in water scarce

regions around the world, water is often highly politicized and water-related data is therefore treated as highly confidential.

Hydro-climate services are typically under-resourced and underfunded – even though numerous studies have demonstrated their potential to deliver substantial socio-economic benefits – a World Bank-funded study has estimated that that globally improved weather, climate, and water observation and forecasting could lead to up to US\$ 30 billion per year in increases in global productivity and up to US\$ 2 billion per year in reduced asset losses.

There is an urgent need for improvements in hydro-climate services and for increasing coordination, innovation, research and development and, leveraging new developments in remote sensing and crowdsourcing, to propose new approaches that build, enhance, and maintain observing systems where they are weak and where knowledge gaps are threatening sustainable development. The last few decades has seen rapid growth in satellite based data but in situ measurement of water resources are in decline globally Groundwater data is particularly lacking given the difficulty of measuring it.

This calls for increased awareness by politicians and decision-makers of the key role hydro-climate services are playing to help achieve the SDGs, and for securing adequate funding and capacities to develop them.

Fortunately, hydro-climate services have received increased attention in particular under Agenda 2030:

- Building on the Global Framework for Climate Services (GFCS), The Paris Agreement explicitly calls for *strengthening scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs **climate services** and supports decisionmaking*

- The SDG monitoring process is providing a foundation for more more integrated and standardized (and thus comparable) set of core water accounts and indicators standardized water data through *UN Water's Integrated Monitoring Initiative (GEMI)*.
- In its September 2016 action plan, which includes a chapter on water data, the High Level Panel on Water co-convened by the UN and the World Bank advocates for a strong political message on the critical importance of water data to effectively address water problems.
- The World Meteorological Organisation launched in June 2016 the Global Hydrometry Support Facility and Innovation Hub which will expand the base of global hydrological data with the aim of developing a reliable and sustainable base of hydrological data and information.
- Through its Secretariat, the Geneva Water Hub, and together with the WMO Global Hydrometry Support Facility, the High Level Panel on Water and Peace co-convened by 15 countries will explore how hydro-climate services can improve the analytical basis to forecast and manage water-related disputes and conflicts, especially in global hotspots and river basins at risk.

**To translate this renewed focus on hydro-climate services in concrete outcomes, a strong political message should be delivered at all levels on the critical importance of information and data to effectively address the global water and climate challenges.**

Many thanks.