

Side event at COP22 organized by UN-Water

“Hydro-Climate Services for All”

Date: Wednesday, 9 November 2016, 18:30 - 20:00

Location of side event: Blue Zone, Mediterranean Room

Agenda

- **Welcome address - UN-Water representative (5 min)**
- **Introductory speech by moderator (5 min)**
 - Proposed moderator:**
 - Karin Lexen, SIWI**
- **Keynote speech (10 min) - Mr. Andres Tarand, former Prime Minister of Estonia**
- **Panel discussion -experts with questions from the moderator and the audience (65 min)**

Panelists:

Mr. Irfan Tariq, Director General Environment, Ministry of Climate Change, Pakistan

Ms. Hanadi Awadallah, Director of the Department of Afforestation and Re-forestation, Sudan

Mr. Stefan Roesner, Deutscher Wetterdienst (German Meteorological Service)

Mr. Demetrio Innocenti, Green Climate Fund

Mr. Ali Subah, Assistant Secretary-General, Ministry of Water and Irrigation, Jordan (tbc)

Focus of the session:

Hydro-Climate services provide tailored climate, weather and water information and analysis to assist planning and decision making in various fields, such as food security, health, sanitation, energy, tourism, transport, urban design, disaster risk reduction and water management.

Climate impacts are strongly felt through the medium of water. Droughts and floods affect livelihoods, ecosystems, agricultural production, power supply, urban infrastructure and economic development. A changing climate, coupled with anthropogenic pressures, threatens water access, security and sustainability of societies with the rights of the poor and marginalized affected the most. Hence, 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.

In many regions of the world, water stress is already high. 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.

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 sanitation adequate to meet their basic needs and realize their right to water and sanitation.

Sophisticated hydro-climate services combine climate forecasts, water information and information from 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.

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. This is because climate and water data collection, modelling and analysis are oftentimes fragmented across agencies, which can result in an incomplete picture of risks and vulnerabilities. Furthermore, weather forecasts and the outputs generated by climate models must be bias-corrected and then combined with hydrological models to generate actionable information on runoff, floods, freshwater resource availability, groundwater recharge and other phenomena. Collaboration is thus essential to providing the hydro-climate services that are needed for decision-making by water managers, farmers, hydropower producers and others concerned about the impacts of climate change on water-dependent sectors.

Possible topics of discussion:

The characteristics of hydro-climate services, including:

Climate information available today and application of hydro-climate services for adaptation and mitigation; range of hydro-climate services needed by different sectors and to reduce inequality; education, capacity building and communication of climate science; Taking decisions under uncertainty

Examples from different regions, sectors, levels of governance, including:

Generation and provision and sharing of information, e.g. in transboundary basins; examples of co-production (the joint development of services by information providers and users) of climate and hydrological services and their application; example of transforming information

and good ideas into operable practice; involving citizens, particularly the marginalized and poor, in local adaptation efforts informed by hydro-climate services; transformation of tools and methodologies to hydro-climatic services through citizen science approach; disasters and extreme weather events with a focus on droughts and floods; hydro-climate services for agriculture, provision and feedback; climate change impacts on water supply and sanitation (WASH), right to water and sanitation, response strategies, including by utilities

Political process and finance to ensure funding

Feedback loops between the knowledge gained through Hydro-Climate Services and the climate negotiations; the role of (I)NDCs and NAPs in the development of hydro-climate services. Example of integration of water into climate policy; how to access finance for hydro-climate services?; informing financial management decisions with hydro-climate services.

- **Closing remarks (5 min)**