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WCC-III Press Conference Geneva

Climate Services for the benefit of policymakers, economical sectors and citizens

Ladies and Gentlemen,

Climate Services, the main topic of the World Climate Conference 3, is a core activity of MeteoSwiss and the European Meteorological and Hydrological Services.

Let me introduce myself: My name is Daniel Keuerleber-Burk, Permanent Representative of Switzerland with WMO, President of the WMO Regional Association VI (Europe) and Director of the Federal Office of Meteorology and Climatology, MeteoSwiss.

For many years, climatology consisted primarily in

- observing the weather,
- quality checking and archiving the data,
- calculating statistical mean values like average temperatures or monthly precipitation anomalies.

This work was based on national observation networks which have been continuously running for nearly 150 years. Without this infrastructure, we would not know today how much the climate has changed in recent years.

In the last forty years or so, it became more and more clear that human activities are influencing the physical processes in the atmosphere and therefore lead to a climate change. The awareness of this problem boosted the climate research and started to change the way climate services work.

One of the outcomes of the first World Climate Conference in 1979 in Geneva was the establishment of the World Climate Research Programme and subsequently, the Intergovernmental Panel on Climate Change IPCC. The research results of these programmes clearly led to a better understanding of the Earth-Climate System. Together with the progress in computer technology, it became possible to develop and push numerical models. Models allow the simulation of the processes which govern the current and future state of the climate system.

The observation of climatological parameters, however, *remained and will remain a top priority activity*. Climatological data *are* used as input for numerical weather and climate models in order to define an initial state of the atmosphere, oceans and the land surface. They are also essential for the verification of models. Moreover, any detection of climate changes can only be reached with high quality observations worldwide. The establishment of the Global Climate Observing System (GCOS) was therefore an important achievement of the second World Climate Conference in 1990 in Geneva.

The improvements in the Global Climate Observing System, as well as results of climate research and modelling, were “ingredients” for the 4th assessment report of the IPCC. As you know, the IPCC was awarded with the Nobel Peace Price in 2007 for its efforts to build up and spread greater knowledge on man-made climate change. The origins of this important success go back to the First and Second World Climate Conferences in 1979 and 1990.

More than ever, the management of climate related risks and the development of local and regional adaption strategies require sound climate information and specific climate services. In addition to rather short-term weather predictions, the time scale reaching from months up to years is the new challenge. We have to answer questions related to medium and long term effects of climate change on a country or region.

- Will there be a temperature change of the same magnitude as stipulated in the IPCC report?
- How does the precipitation pattern change for a particular river basin? Say for instance, the Valais and therefore here in Geneva.
- How about the frequency of extreme weather? Will there be more storms, floods, heat waves or droughts?
- How will the spread of diseases be changed and prevention strategies accordingly adapted?

Climate services can help in giving answers to many of these questions, at the benefit of policymakers, economical sectors and citizens.

In order to address these challenges, we have started to build up a Network of Regional Climate Centres on the European Level. The network in its initial design will consist of 3 nodes, each node representing a consortium of National Meteorological Services, led by a lead institution. The nodes have specific functions and can be regarded as centres of competence responsible for specific sets of products. As President of the Regional Association VI, I just recently have had the pleasure to start the operational pilot phase for the Network of Regional Climate Centres. This is a mayor step ahead for the users of climate services in Europe, as they will have a gradually increasing benefit from this cooperation among the Meteorological Services in the framework of WMO.

Switzerland, due to its mountainous topography, is known to be particularly exposed to climate changes. Since 1970, there has been a rise of temperature of about 1.5 degrees. This is nearly twice as much as the global trend. It is assumed that by the

middle of this century, more than halve of the current volume of the glaciers will have melted away. Steep mountain slopes will be destabilized due to thawing permafrost. The climate change affects many economic sectors, such as tourism, infrastructures, hydropower, agriculture and health. This development leads to an ever growing demand for climate services from different stakeholders.

One of our focuses for new and better climate services is the theme around snow, ice and permafrost in the high mountains. I will give you a concrete example: Many ski resorts are located at an elevation of 1000 to 1500 Meters above sea level. One of our research projects revealed that within the next 50 years, the zero degree line in winter time will rise from nowadays 860 Meters to 1200 Meters above sea level in the future. By 2050, dozens of ski resorts will not have enough snow in winter to continue to exist. That means, their existence is endangered. This information is vital for those people who deal with regional planning, water management as well as for investors in holiday resorts.

These examples show that, although the problem of climate change is global, the effective consequences are very specific to each region. Hence, for each country and each region **tailor made services** are required. Local climate services are in general retrieved by analyzing existing observation data as well as by downscaling global models and climate scenarios to the required area.

The aim of the World Climate Conference 3 is to foster improved climate services building on even stronger research and observation programmes. What we particularly need is an improved dialogue between the providers of climate services, namely the national Met Services, and the users. Without this dialogue, it is difficult for the providers to set the focus for the development of the climate services in the future. On the other hand, the users must know the potential and limitation of our products if they want to have an optimal benefit.

If the World Climate Conference 3 in Geneva this August can bring progress in both, the scientific aspects of the development of climate services and the improvement of the dialogue with the users, then, this conference will be a major step in the direction of better climate information for a better future.

Thank you very much for your attention.