



## ICA&D: Climate Services across borders

A.F.V. van Engelen

KNMI, De Bilt, Netherlands (aryan.van.engelen@knmi.nl)

The development of climate services, enabling nations a better management of the risks of climate variability and change, is dependent on the availability of long term high quality observations on a regional scale, serving monitoring, assessing and projecting climate change.

The International Climate Assessment & Dataset (ICA&D) climate services concept aims to the disclosure of and access to high quality station data sets with a daily resolution, the provision of climate monitoring information and climate change assessments for as many stations in a region as possible. ICA&D combines and extends the work of WMO's Expert Team on Climate Change Detection and Indices (ETCCDI) and WMO's Task Team on Data Rescue (TT-DARE).

ICA&D builds on the knowledge, software and governance concept developed for the European Climate Assessment & Dataset (ECA&D), a service consisting of a regional web portal for daily station data (brought together through regional cooperation between NMHS's) and derived climate information. ECA&D is linked to the Mediterranean Data Rescue (MEDARE) initiative. ECA&D serves as the climate data node in WMO-RAVI Regional Climate Centre (RCC).

The ICA&D concept integrates disclosure and dissemination of basic climate data and information on regional climate variability, monitoring of the current evolution of the climate, placing significant events into the historical context, and assessing climate change. Climate station data, with regular updates of records from weather stations, is processed in an automated way to provide useful information such as adaptation relevant indices for drought, flooding, heatwaves, etc. Both trend maps, climate anomalies and extreme event statistics are included. Web users are able to access this derived climate information to help them in their decision making process to support disaster risk reduction.

The set up of a regional system is generally initiated through a combined ETCCDI - TT-DARE regional workshop, followed by a capacity development and implementation period organized by the hosting institute and KNMI in close contact with the WMO office in Geneva. Transfer to other regions is made easy because the website, underlying database and all processing software are freely and openly available. In order to guarantee and safeguard the data and information, KNMI provides a mirrored backup system. Also, the required training and consultation in relation to ICA&D implementation is provided by KNMI.

The establishment is considered of a dedicated board on ICA&D, providing guidance on the implementation, use, development, capacity building and exchange of information. The board will be chaired by KNMI and staffed by delegates from the regional hosts of the ICA&D systems, from ETCCDI and TT-DARE and WMO secretariat.