Case study: Climsoft

Challenge

The Rwanda Meteorology Agency (Meteo Rwanda) sought a fully integrated Climate Data Management System that would ultimately enable them to deliver services to users on all timescales, and to better understand climate patterns, risk assessments and impacts on socio-economic scenarios.

The system also had to meet World Meteorological Organization (WMO) guidelines, in support of the Global Framework for Climate Services. Observations from automatic and manual observing systems needed to be incorporated in the same database.

Previously, Meteo Rwanda had separate systems for collecting observation data depending on the intended use. Data was transferred from paper forms to a database at the end of each month, thereby causing a delay in availability. The parallel systems meant using different quality control methods which gave potentially conflicting values, and only a very limited range of outputs were available until well after the end of the month.

Solution

Meteo Rwanda and the Met Office worked in partnership with an expert consultant from Kenya Meteorological Services (KMS) to deliver an effective integrated Climate Data Management System called Climsoft. This was done under a license agreement held by WMO for use of Climsoft by National Meteorological and Hydrological Services.

Climsoft collects and stores both automatic and manual weather observation data as well as additional observation types. It is only possible to store observations after the collection of essential metadata - the data that describe the stations, the

“Using Climsoft has transformed how we manage our observation data and the services we deliver.”

Marcellin Habimana, Meteo Rwanda
Benefits

The Climsoft installation gives Meteo Rwanda an integrated observations processing system which simplifies the data handling and eradicates the use of multiple processes.

The system offers processing in real time across multiple applications, online and offline. The speed and simplicity of automation means that services are integrated much closer to the time of observation, creating more timely services.

Climsoft can collect observations data in several formats and then distribute it to the relevant areas. The divergence of information is eradicated, improving accuracy and quality control. This system supports Meteo Rwanda in its challenge to deliver better services and understand climate patterns, risk assessments and impacts on socio-economic scenarios.