

Climate changes impact on watercourses regimen: Case of Mina wadi-Wilaya of Relizane

Since the middle of the 19th century, a certain global-warming has been noticed.

This exceptional global-warming is directly linked with greenhouse gas emissions and can have a significant impact on the hydrological behavior of the watercourses, and this what we showed through this work.

There is a very great number of hydrological models of the rain-flow transformation.

In our work, we used a conceptual model of “rural engineering” (RG) named GR2M, which works with two parameters of calibration and a monthly step time. This model produced for us satisfying results for calibration phase and for validation phase, which motivated us to use it for studying and analyzing the hydrological behavior of our basin in the future (by the years 2020 and 2050), and this thanks to the weather forecasts (rainfall, temperature).

Our work is a warning tool so as to take necessary precautions to face the climatic changes as well as adaptation measures.

Keywords: global-warming; hydrological models; GR2M; rain-flow transformation; weather forecasts; greenhouse gas.