World Academy of Science, Engineering and Technology International Journal of Environmental and Ecological Engineering Vol:18, No:06, 2024

Impact of Climate Change on Water Resources in Morocco

Authors: Abdelghani Qadem, Zouhair Qadem

Abstract : Like the countries of the Mediterranean region, Morocco is likely to be at high risk of water scarcity due to climate change. Morocco, which is the subject of this study, is located between two climatic zones, temperate in the North tropical in the South, Morocco is distinguished by four types of climate: humid, sub-humid, semi-arid, and arid. The last decades attest to the progression of the semi-arid climate towards the North of the country. The IPCC projections, which have been made in this direction, show that there is an overall downward trend in rainfall contributions varying on average between 10% and 30% depending on the scenario selected and the region considered, they also show an upward trend in average annual temperatures. These trends will have a real impact on water resources, which will result in a drop in the volume of water resources varying between 7.6% and 40.6%. The present study aims to describe the meteorological conditions of Morocco in order to answer the problem dealing with the effect of climatic fluctuations on water resources and to assess water vulnerability in the face of climate change.

Keywords: morocco, climate change, water resources, impact, water scarcity

Conference Title: ICEHHH 2024: International Conference on Environmental Hydraulics, Hydrology and Hydrodynamics

Conference Location : Barcelona, Spain Conference Dates : June 13-14, 2024