Climatic indexes of precipitation and temperature of San José de Metán, Salta, Argentina

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Revista Argentina de Agrometeorología RADA, v. XIII (2022): 39-46

Summary

Climate change is affecting precipitation patterns, there is a probability that they will increase in high latitudes, while in subtropical regions their decrease is expected. The objective of the work is to obtain climatic indexes of precipitation and temperature proposed by the Expert Team on Climate Change Detection and Indices (ETCCDI) and analyze their trends in the town of San José de Metán, province of Salta, period 1982-2020, with daily data from the National Meteorological Service (SMN) and remote sensors using Google Earth Engine. The treatment of the data from the SMN reveals a high percentage of missing. The results confirm the trends detected regionally by other researchers. For the precipitation indexes, without significant trends, however, slopes with decreasing values are presented. The indexes for 1 and 5 days of maximum precipitation in a month (Rx1day and Rx5day) show high values of more than 100 mm; while for the number of consecutive wet and dry days (CWD and CDD) with decrease and increase respectively. The temperature indexes confirm the significant increase in temperature with values above 36°C and a maximum of 42°C in the summer season, and a decrease in cold days and nights.

Key words: climate trends; ETCCDI; remote sensors