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## Analysis of Mean Climate Conditions in Senegal (1971–98)

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**ABSTRACT:** This paper presents a GIS-based analysis of climate variability over Senegal, West Africa. It responds to the need for developing a climate atlas that uses local observations instead of gridded global analyses. Monthly readings of observed rainfall (20 stations) and mean temperature (12 stations) were compiled, digitized, and quality assured for a period from 1971 to 1998. The monthly, seasonal, and annual temperature and precipitation distributions were mapped and analyzed using ArcGIS Spatial Analyst. A north–south gradient in rainfall and an east–west gradient in temperature variations were

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