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

Souleymane Fall
Department of Agronomy, and Indiana State Climate Office, Purdue University, West Lafayette, Indiana

Dev Niyogi*
Department of Agronomy, Department of Earth and Atmospheric Sciences, and Indiana State Climate Office, Purdue University, West Lafayette, Indiana

Fredrick H. M. Semazzi
Department of Marine, Earth and Atmospheric Sciences, and Department of Mathematics, North Carolina State University, Raleigh, North Carolina

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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

* Corresponding author address: Dev Niyogi, Indiana State Climatologist and Assistant Professor of Agronomy and Earth and Atmospheric Sciences, Purdue University, 915 W. State Street, Purdue University, West Lafayette, IN 47907-2054.
E-mail address: climate@purdue.edu