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In the majority of West African nations, where subsistence agriculture is predominantly practiced, climate change has been noted as an increasing threat to food security and inadequate nutrition. These nations have limited capacity for adaptation and are subject to harsh weather. This emphasizes the significance of gathering accurate climatic data to fully comprehend current and future vulnerabilities in order to build the best methods for coping with climate change. Reanalyses are alternate datasets for climate studies and operational use because station observations are difficult to get and spatiotemporally inconsistent in West	

Africa. Reanalyses produce estimates of the atmospheric fields that are physically consistent, allowing for process-based analysis of variables like temperature and precipitation variability and long-term trends, as well as climate extremes. Gbode et al. (2023, beginning on Page 570) examines the performance of ERA5 and ERA-interim (ERAI) products in representing the mean and extreme climates over West Africa for the

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period 1981-2018.