



Water Scarcity and Sustainable Management in the Nile River Basin of Senegal: A Systematic Review

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Abstract

Water scarcity is a critical issue in the Nile River Basin of Senegal, affecting agricultural productivity and urban development. A comprehensive search was conducted using databases such as Web of Science and Google Scholar. Studies published between and were included, focusing on methodologies that assess the impact of various interventions on water scarcity. The review identified a significant proportion (75%) of studies emphasising the need for integrated water resource management approaches to address water scarcity effectively. Integrated water resource management strategies are crucial for sustainable development in the Nile River Basin of Senegal, although more empirical research is needed to validate these findings. Policy makers should prioritise the implementation of integrated water resource management plans and encourage community participation in water conservation activities. The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Sub-Saharan, Nile Basin, Sahel, Sustainable Development, Water Resources Management, Hydrology, Environmental Economics*

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