African Heritage and Conservation

Methodological Assessment of Regional Monitoring Networks in South Africa: Quasi-Experimental Design for System Reliability Evaluation

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Abstract

South Africa faces complex environmental challenges, requiring robust regional monitoring networks to ensure effective conservation efforts. A quasi-experimental design was employed to assess system performance, incorporating statistical modelling for data analysis. The findings revealed that the regional monitoring networks were moderately reliable, with a coefficient of determination (R^2) of 0.65 indicating significant explanatory power of the model. This study provides evidence on the effectiveness and need for improvement in South Africa's environmental monitoring systems. Enhanced data collection methods and improved system integration are recommended to further improve reliability. South Africa, Monitoring Networks, Quasi-Experimental Design, System Reliability

Keywords: *Sub-Saharan, African, Evaluation, Systems, Sustainability, Quasi-Experimental, Design*

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