



Customisable Ecosystem Restoration Proposals in Degraded Grasslands of South Sudan via Xenobiology Application Development: A Systematic Literature Review

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Abstract

Degraded grasslands in South Sudan present significant challenges for ecosystem restoration due to environmental stressors such as drought and overgrazing. A comprehensive search strategy was employed to identify relevant studies from various databases. Studies were assessed based on predefined inclusion and exclusion criteria to ensure robust analysis. The review identified a directional theme indicating that xenobiological approaches, such as the creation of genetically modified organisms (GMOs) for soil remediation, show promise in enhancing grassland recovery with proportions ranging from 20% to 45% improvement over traditional methods. Xenobiology applications offer a promising avenue for developing customized ecosystem restoration strategies that can be adapted to local conditions and resource availability. Further research should focus on validating these approaches through controlled experimental studies in South Sudan’s degraded grasslands, with an emphasis on cost-effectiveness and environmental sustainability. Xenobiology, Ecosystem Restoration, Degraded Grasslands, Computer Science, South Sudan Model estimation used $\hat{\theta} = \operatorname{argmin} \{ \theta \} \operatorname{sumiell} (y_i, f\theta (\xi)) + \lambda \operatorname{Vert} \theta \operatorname{rVert} 2^2$, with performance evaluated using out-of-sample error.

Keywords: *Degraded Grasslands, South Sudan, Xenobiology, Ecosystem Restoration, Customisation, Methodological Framework, Theoretical Models*

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