



Evaluation of Land Degradation Assessment Studies: Attributes Applicable to Various Geographical Regions

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Abstract: The mapping land degradation and monitoring requires many input pertains to physical, meteorological, biological, socioeconomic and cultural factors. A methodology has been proposed through which land degradation assessments can be ranked based on the numbers of indicators. Twenty seven land degradation assessment studies conducted from various geographical regions were evaluated by using a new evaluation index, which ranged 0.1 to 9.4. Internal matrix of this index and representative studies were assessed through frequency distribution, Agglomerative Hierarchical Clustering (AHC) and by Principal Component Analysis (PCA). This study provides a compressive list of minimum quantitative and qualitative parameters applicable to various ecosystems for land degradation assessments. Versatility index was also formulated by using an evaluation index, total quantified parameters and number of attributes requires management practices. This effort provided a judging criterion to evaluate future endeavors along with management approaches.

Keywords: Land degradation, Evaluation index, Ecosystem services, Multivariate analysis, Versatility index
