

A framework for national assessment of land degradation in the drylands

Abstract:

Land degradation is a gradual, negative environmental process that is accelerated by human activities. Its gradual nature allows degradation to proceed unnoticed, thus reducing the likelihood of appropriate and timely control action. Presently, there are few practical frameworks to help countries design national strategies and policies for its control. The study presented here developed a framework for the national assessment of land degradation. This framework is envisaged to support governments in formulating policies on land degradation. It uses time-series remote sensing data to identify the rate and extent of land degradation, local experts to identify prevalent degradation types and drivers of the degradation and field observations to validate the overall assessment. Its simplicity, use of freely downloadable input data and self-triangulation of the assessment methods make it suitable for rapid assessment of land degradation on a national scale. It was tested in Somalia, where it exhibited accuracy greater than 60 per cent when assessing land degradation. This framework is relevant for designing national strategies and policies that address land degradation and provides an opportunity for accurate identification of areas to target with comprehensive local assessment. Testing of the framework in Somalia showed that about one-third of the country was degraded because of loss of vegetation cover, topsoil loss and to the decline of soil moisture. Overgrazing, excessive tree cutting and poor agronomic practices in agricultural areas were identified as the primary drivers of the country's land degradation. These drivers are encouraged by the prevailing communal land tenure practices, poor governance and civil war.