

Remote Sensing and GIS for Soil Erosion



Agus Santoso Budiharso

REMOTE SENSING FOR SOIL EROSION PREDICTION

A Study in Lake Tondano Catchment Area, North
Sulawesi Indonesia

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Soil erosion is a natural geomorphic process, taking place persistently over the earth's surface. Soil erosion is one of the most significant environmental problems in the world today, as it seriously threatens agriculture, natural resources and the environment. In general, the term soil erosion means the destruction of soil by the action of water and wind. Many methods and formulas have been applied to measure soil erosion, such as USLE, MUSLE. Due to soil surface erosion has strong correlation with land use, to predict annual erosion by utilizing remotely sensed data which is combined with slope factor is very possible. Therefore, the application of Remote sensing techniques can be used to estimate soil erosion quickly and accurately on large areas. In this technique the availability of Landsat Imagery and Digital Elevation Model (DEM) data are very important.



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Agus S Budiharso has completed his master degree on the Coastal and Watershed Management and Planning in 2010 from the Faculty of Geography Gadjah Mada University. Currently he works as part timer lecturer in Sam Ratulangi University, Manado. He also works as consultant concerning on GIS and Remote Sensing for spatial and landuse planning



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