



[HOME](#) [ABOUT](#) [LOG IN](#) [REGISTER](#) [SEARCH](#)
[CURRENT](#) [ARCHIVES](#)

[OPEN JOURNAL SYSTEMS](#)

Home > Vol 3, No 2 (2003) > **Kandrika**

[Journal Help](#)

Assessment of the Impact of Mining on Agricultural Land using Erosion-Deposition Model and Space Borne Multispectral Data

Sreenivas Kandrika, R.S. Dwivedi

USER

Username

Password

Remember me

Abstract

Since erosion of mine overburden and mine dump leads to its deposition down the slope in the catchment, an attempt was made to study the erosion-deposition pattern in a micro watershed in part of Goa state, south-western India using the erosion-deposition model proposed by Mitasova et al. (1996). Information on various parameters of the model, namely curve number, management factor, cover factor, slope, soil erodibility, etc. was derived from the Indian Remote Sensing satellite (IRS-IC) Linear Image Self Scanning sensor LISS-III and PAN-merged data in conjunction with the DEM, field check and topographic maps at 1:25,000 scale. While only 11.2% of the area has been found to be under the protective cover of forest, 36.31 per cent of the area is under the influence of open cast mining, and a sizeable area is under scrubs. The impact of mining in terms of deposition of material has been observed in an estimated 219 ha of land, of which the agriculture land constitutes only 10 ha. Methodology and results are discussed in detail.

NOTIFICATIONS

[View](#)
[Subscribe /](#)
[Unsubscribe](#)

JOURNAL CONTENT

Search

All ▼

Browse

[By Issue](#)
[By Author](#)
[By Title](#)

Keywords

Mining; Agricultural Land; Erosion-Deposition Model; Space Borne Multispectral Data

Full Text: [PDF](#)

FONT SIZE

INFORMATION

[For Readers](#)
[For Authors](#)
[For Librarians](#)

Refbacs

There are currently no refbacs.