



## **A study on landuse/landcover change and It's impact on landslides**

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**Abstract:** Landslides in Nilgiri hills of India befall as a known issue year after year during the monsoon months. The recent landslide of November 2009 killed more than 42 people with 476 people severely affected and incurred a huge economical loss of around Rs.600 crores. Though the principal triggering factor is rainfall, there is a general credence that change in land use/land cover in terms of excessive deforestation is the major cause of frequent landslides. This study aims to answer the above question by using “Land Change Modeler”, an extension to ArcGIS released recently by CLARK LABS of USA. A new way of representation of spatial change like identifying the gains & losses, class-wise contribution to net change & the trend in which changes took place etc. are the main highlights of this study. The landslide inventory map was superimposed on each of the class-to-class change map to verify whether the deforestation has marked effect in rendering the slopes slide prone. The results clearly show that the majority of the landslides occurred in deforested slopes.