

ROLE OF GEOINFORMATICS IN MONITORING OF HIMACHAL PRADESH (LAHUL&SPITI) GLACIERS

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Abstract:

Since the industrialization, Human activities and misleading of the technology have significantly altered the global climate and especially the rapid increase in glacier areas. The expected increase in change in global climate/temperature after 100 years will be 1.4-5.8 degrees. The results of global warming already are resulted in Himachal Pradesh (Lahul&Spiti) Himalayan glaciers. In this present study monitoring of the glacier area has been done with different datasets such as IRS-P6, Landsat (ETM+), image Classification technique has been used for different years of the study area and change detection has been done with temporal analysis. The causes of the changes in study area were discussed in the terms of land surface temperature and other condition. NDSI (Normalized Difference Snow Index) performed to show the density of glaciers by differentiating with other natural features. Morphometric analysis and Topographic analysis has been performed which can be used for disaster mitigation and management. Geo spatial technology such as Arc GIS, and Global Mapper is used in methodology. Keywords: Global climate, Global Warming, NDSI, Morphometric analysis, Topographic analysis, GIS,

