CLASSIFICATION METHODS FOR PREVENTIVE ANALYSIS OF TROPICAL SLOPE SYSTEMS: MAPPING LEYTE'S PRE DISASTER ENVIRONMENT WITH ASTER IMAGERY

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The recent spate of landslide disasters in the Philippine country sides underscored the great need for accurate and timely information derived from remotely sensed imagery. Accurate zonation and identification of disaster prone areas need to be made for mitigating/managing future events. This paper seeks to integrate object and knowledge based techniques in deriving these disaster zones/areas from ASTER imagery. This paper considers crucial variables of slope failures -- the steepness of slope and other geo-morphological factors to achieve increased classification accuracy by integrating derived parameters from geology, topography (DEMs), land cover/use and other ancillary data.