



DETECTION OF SLOPE FAILURES USING ALOS/AVNIR-2 IMAGES FOR THE 2008 IWATE- MIYAGI INLAND EARTHQUAKE

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ABSTRACT: ALOS/AVNIR-2 optical images were employed to extract slope failures which occurred in 2008 Iwate-Miyagi Inland earthquake. Landslide areas were extracted comparing the pre- and post-event AVNIR-2 images by two methods. One method uses the difference of the normalized difference vegetation index (NDVI) obtained from the pre- and post-event images. Another method performs a supervised land-cover classification by maximum likelihood approach, and the difference of extracted bare-ground pixels between the two images was recognized as landslide. Comparing with the visual inspection result, the accuracy of these methods was demonstrated.

Key Words: the 2008 Iwate-Miyagi Inland Earthquake, Slope Failure, ALOS/AVNIR-2, Normalized Difference Vegetation Index, Supervised Classification, Digital Elevation Model