A comparison and practical use of the landcover classification using ALOS/PALSAR and LANDSAT8/OLI

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In this study, land cover classification was made by the full polarimetry analysis using the L band of ALOS/PALSAR in Asuka Village, Nara, JAPAN. The comparison about the inspection and the precision between a classification by full polarimetry with ALOS/PALSAR and by optical data analysis with LANDSAT8 was held. The field work was the most important method to inspect. As a result, the full polarimetric image was very useful to classify the land cover in all seasons even in deciduous broad-leaved forest. However, the shadow area nor the ponds like mirror surface were not able to be classified because the sensor angle was low and an electric wave did not reach. Crowded houses were recognized to be buildings, but some houses in a sparse residential area was not. In addition, right land cover was able to be distinguished at the place of the gentle topography including the rice field.

Keywords: land cover classification, ALOS/PALSAR, full polarimetry