Validation using national land numerical information on the flood rate estimated by microwave radiometer

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Abstract: In recent years, remote sending using microwave radiometer is progressing. In this study, the flood rate estimated by the microwave radiometer was verified. As a microwave radiometer for verification, AMSR2 was used. Flooding area ratio of the six stages were calculated from supposed flooded area and the land use classification map of national land numerical information. The flood rate calculated from AMSR2 and the flooded area ratio calculated from national land numerical information were compared. It was verified which flooding stage corresponds to the flooding rate during heavy rain and normal times. Down scaling of flood area in Okayama during west Japan heavy rain was created from the obtained inundation level. Then, the created flood map was compared with aerial photograph and other flood map.

Keywords: GIS, water disaster, remote sensing, raster data