MAPPING WETLANDS AND FLOODS IN THE TONLE SAP BASIN, CAMBODIA, USING AIRSAR DATA

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Abstract

In order to ensure a balance between economic development and a healthy Mekong Basin environment supporting natural resources diversity and productivity critical to the livelihood of its 65 million inhabitants, the Mekong River Commission (MRC) has been investigating the use of radar to remotely characterize and monitor the diversity, complexity, size and connectivity of the Basin's aquatic habitats. The PACRIM AIRSAR Mission provided an opportunity to evaluate the usefulness of radar technology to derive information for assessing, forecasting and mitigating possible cumulative and long-term impacts of development on the natural environment and the people's livelihood

This paper presents the results of mapping wetland cover types using multi-polarimetric radar for an area of the north-western corner of the Tonle Sap basin with data acquired from the AIRSAR Mission in September 2000. The implementation of a newly developed segmentation classification routine used to derive the image classification is described and the results of a fieldwork campaign to check the classification is presented.