



Citizen science land cover classification based on ground and satellite imagery: Case study Day River in Vietnam

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Abstract

Citizen science is being increasingly used in the context of environmental research, thus there are needs to evaluate cognitive ability of humans in classifying environmental features. With the focus on land cover, this study explores the extent to which citizen science can be applied in sensing and measuring the environment that contribute to the creation and validation of land cover data. The Day Basin in Vietnam was selected to be the study area. Different methods to examine humans' ability to classify land cover were implemented using different information sources: ground based photos - satellite images - field observation and investigation. Most of the participants were solicited from local people and/or volunteers. Results show that across methods and sources of information, there are similar patterns of agreement and disagreement on land cover classes among participants. Understanding these patterns is critical to create a solid basis for implementing human sensors in earth observation.

Keywords: Land cover, classification, citizen science, Landsat 8