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Validation of CA-Markov for Simulation of Land Use and Cover Change in the Langat Basin, Malaysia

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ABSTRACT

Validity of CA-Markov in land use and cover change simulation was investigated at the Langat Basin, Selangor, Malaysia. CA-Markov validation was performed using validation metrics, allocation disagreement, quantity disagreement, and figure of merit in a three-dimensional space. The figure of merit, quantity error, and allocation error for total landscape simulation using the 1990-1997 calibration data were 5.62%, 3.53%, and 6.13%, respectively. CA-Markov showed a poor performance for land use and cover change simulation due to uncertainties in the source data, the model, and future land use and cover change processes in the study area.

KEYWORDS

Land Use and Cover Change; CA-Markov; Calibration; Validation

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