

Land Cover Change Analysis of Restoration of the North Aral Sea, Kazakhstan, 2000 to 2014

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The decline of the fresh-water body known as the Aral Sea is a well-known case study of mismanagement of natural resources in environmental studies. However, recent restoration efforts in the North Aral Sea by the government of Kazakhstan have yielded increases in fresh-water levels and related vegetative cover. This study uses land cover change analysis using Landsat imagery for the time periods of 2000 and 2014. The machine learning classification method maximum likelihood is used with a training data set to derive land cover classes for both time periods. The change over time is calculated by comparing pixel values from land cover classes from 2000 and 2014. Results indicate an increase in biomass both along the edge of the water and inside of it. Overall, trends indicate the amount of water and biomass significantly increased over time, and the amount of sand and salt has decreased.

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Organized Session Details

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