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DYNAMIC EVALUATION AND SPATIAL MAPPING OF WETLAND ECOSYSTEM SERVICES VALUE - A CASE STUDY ON NANJING JIANGBEI NEW AREA

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Abstract

Based on the interpretation of LUCC data, through the correction of basic equivalent value and value equivalent coefficient, this study sets up the evaluation system based on value transfer method, and realizes the dynamic evaluation of wetland ecosystem services value in Jiangbei New Area, i.e., the value of wetland ecosystem services in Jiangbei New Area was RMB 6,060.77 million, RMB 9,244.62 million and RMB 7709.68 million respectively in 2002, 2009 and 2017, which show obvious fluctuation characteristics, and regulation services was the core value, among which flood and waterlogging regulation service value accounted for the highest. At the same time, this study introduces ESCI and ESSI analysis to quantitatively express the change in the evaluation data of wetland ecosystem services value from 2009 to 2017 in the study area with special raster data and realizes the visualization of value change with spatial mapping so as to compare and analyze the gain and loss of ecological function and effectively identify the main loss areas of wetland ecological function. The research methods used in this study are suitable for the research on wetland ecosystem of urban spatial scale, and can be relatively convenient for dynamic evaluation of wetland ecosystem services value and its changes, so as to effectively support urban ecological resource management decision-making.

Key words: evaluation, Nanjing Jiangbei new area, spatial mapping, urbanization, wetland ecosystem services

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