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DEVELOPMENT OF LAND SELECTION TOOL IN CULTURAL RECOGNITION FOR ECOSYSTEM SERVICES PROVISION

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Land selection is an important factor that affects ecosystem services provision. However, interactions between land selection, ecological processes and ecosystem service provision are still not fully understood. Indicators can help to better understand these interactions and provide information for policy-makers to prioritize land selection interventions. In this paper a framework for the systematic selection of lands has been developed to assess the link between land selection and ecosystem services provision in cultural recognition. A new discipline known as Environmental Informatics is combined with research fields such as Artificial Intelligence. Further, functional and social indicators describe significant evidence of cultural recognition in ecosystem service provision. In this paper an intelligent land assessment tool has been presented in ecosystem service provision a sub field of architecture domain of land selection to come up with land classifications as physical, functional and social indicators. At the initial stage land selection is converted into a questionnaire. Removing dependencies among the questions are modeled using principal component analysis. Classification of the knowledge is processed through fuzzy logic module, which is constructed on the basis of principal components. Further explanations for classified knowledge are derived by expert system technology. The tool gained results by testing in 10 sites, of varying cognitive abilities and diagnoses of cultural heritage. The questionnaire has been constructed with 31 questions and the principal component analyzer detected 9 principal components in filtering process. The tool has been tested for Manthota Rajamaha Viharaya in term of physical, functional and social as 17%, 42 % and 41% respectively. This shows significant contribution of functional and social indicators respectively. The land assessment tool is to be a reliable assessment toolfor cultural recognition in Manthota Rajamaha Viharaya by showing significant contribution of cultural recognition in ecosystem service provision.

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