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# Inclusive Environmental Impact Assessment for Artificial Lagoon in Kobe Airport Island

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**Summary:** Many environmental restoration technologies for enclosed coastal seas have been developed. The environmental restoration functions of these technologies are conventionally assessed by field monitoring or ecosystem modeling. On the contrary, the social functions of these technologies are usually evaluated by some economic analysis methods, such as Contingent Valuation Method (CVM) and Travel Cost Method (TCM). However, there have been very few assessment methods for both environmental and social functions from the viewpoint of sustainability. In this paper, the authors perform an inclusive environmental assessment, which is based on Inclusive Impact Index (Triple I) proposed by The Research Committee on Inclusive Marine Pressure Assessment and Classification Technology (IMPACT Research Committee) in The Japan Society of Naval Architects and Ocean Engineers, for an artificial lagoon in Kobe Airport island in Osaka Bay.The assessment method consists of the ecological footprint accounting for the environmental sustainability and the TCM for the social sustainability. The environmental assessment results show that the artificial lagoon is environmentally sustainable, when the life cycle is assumed to be more than 9 years. However, the ecological footprint of the fundamental reclamation is much larger than that of the lagoon construction and the biocapacity of the lagoon ecosystem. The social assessment results demonstrate that more than 35,000 visitors are required for the socially sustainable system, when the life cycle is assumed to be 50 years.