

Evaluation of Cirata Reservoir Sustainability Using Multi Dimensional scaling (MDS)

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Abstract : MDS (Multi-Dimensional Scaling) is one method that has been widely used to evaluate the use of natural resources. By using Raffish software tool, we will able to analyze sustainability level of the natural resources use. This paper will discuss the level of sustainability of the reservoir using MDS (Multi-Dimensional Scaling) based on five dimensions: (1) Ecology & Layout, (2) Economics, (3) Social & Culture, (4) Regulations & Institutional, and (5) Infrastructure and Technology. MDS analysis results show that the dimension of ecological and layout, institutional and the regulation are lack of sustainability due to the low index score of 45.76 and 42.24. While for the economic, social and culture, and infrastructure and technology dimension reach each score of 63.12, 64.42, and 68.64 (only the sufficient sustainability category). It means that the sustainability performance of Cirata Reservoir seriously threatened.

Keywords : MDS, cirata reservoir, carrying capacity, water quality, sustainable development, sedimentation, sustainability index

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