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LOW-IMPACT DEVELOPMENT OF WATERSHED MANAGEMENT: A SUSTAINABILITY REVIEW ON GARANG RIVER WATERSHED IN SEMARANG CITY, INDONESIA

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Abstract

Management of river watershed is an important point in providing freshwater availability. The high level of pollution along the river's watershed of Garang watershed prove that the management of river watershed in Semarang city is not optimal. This research aims to assess the sustainability level of the river and identify key contributing factors. Applying quantitative method, this study uses survey to draw data. Data analysis used descriptive statistical methods with Multi-Dimensional Scaling (MDS) techniques. The sustainability review in this study is assessed from the input, process, and output dimensions. The study shows that management status of the Garang river watershed in Semarang City has a sustainability index value of 42.94, which is included in the continuous interval between the index values of 25-49.99. It means that Garang river watershed management is categorized as less sustainable. The less sustainable category of Garang river watershed management is caused by the conflicting policies, regulations, institutions, and management and unclear, inconsistent, and disharmonious regulations on watershed management within the scope of city government. This result will be very important to plan the Low-Impact Development for river watershed.

Key words: Indonesia, Low Impact Development, Multi-Dimensional Scaling, sustainability management, watershed

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