COST ANALYSIS FRAMEWORK FOR SEDIMENT MANAGEMENT IN RESERVOIR INFRASTRUCTURE

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ABSTRACT

Water is an important element for the continuity of the life of human beings. Generally, the human being was created and had settled down in order to get basic needs in daily life. In the present day, the scarcity of water due to human population increase, climate changes, drought, environmental change, etc., causes need to store the freshwater is very important and urgently and the build of dam reservoir is the one answer for that problem. The biggest problem that occurs in the dam reservoir is sedimentation. Sedimentation problem can make reduce gross storage of dam reservoir. Sedimentation management is one way of maintenance process for make sediment removal in dam reservoir. Maintenance cost for that dam reservoir can’t direct separately, because that social function and business benefit working together. The cost analysis framework was undertaken to identifies and describe the estimated costs associated with the baseline, development and alternatives, and calculates comparative costs between them, also integration of risk factor management approaches into routine practice for the pilot teams. Because of that, is importance to know component cost and development of component cost that used for make cost analysis. In this research that to get guidance for make cost analysis base on component cost and also to developed, that type of research is develop theory and model, base on studies of published material and compare between theoretical. Research finding that almost eighty percent (80%) most of respondent that involved in cost analysis or cost estimate agree that practically to make framework for cost analysis is importance that the beginning, component cost base on theory and furthermore to make guidance is combine component cost in theory and practically, beside depend on the drawing, specification or other thing that needed for make cost analysis.

Keyword: Cost analysis framework, Sedimentation management, Cost estimate, and Maintenance cost