

ABSTRACT

The Citarum River is the longest river in West Java. The river participates in the development of the Indonesian economy by 20% Gross Domestic Product (GDP). In 2018, the Citarum River ecosystem structuring survey team found 31 factories in the Bandung Regency area to dispose of the production waste directly into the Citarum River, one of which was the textile industry. In the production process the textile industry uses textile dyes containing azo dyes. The compound has the potential to produce aminobenzen or aniline which causes pollution. The lack of communal Waste Water Treatment Plants (WWTP) and improper locations is a factor that causes these industry players to dispose of production waste water directly into the Citarum River.

One of the government's efforts to overcome the problem of the Citarum River is to build a communal Waste Water Treatment Plant (WWTP) in the textile industry area of Bandung Regency. In the communal WWTP development planning process, there are alternative locations with different specifications. Therefore a Decision Support System (DSS) is needed with a web-based Analytical Hierarchy Process (AHP) method to determine the right location to build a communal WWTP. In the process of designing this system is done by doing 4 phases in the decision support system. The four phases are, the phase of intelligence, the design phase, the selection phase, and the implementation phase.

The Decision Support System (DSS) with the Analytical Hierarchy Process (AHP) method has features that can provide convenience to DLH in making decisions on the development of communal WWTP. This DSS can store alternative databases and communal WWTP development criteria, and has an easy-to-understand assessment form, so as to reduce errors in giving an assessment.

Keywords: Analytical Hierarchy Process (AHP), Citarum River, Decision Support System (SPK), Textile Industry, Waste Water Treatment Plant (WWTP).