

Decision Support System Using the TOPSIS Method to Determine Uninhabitable Houses (RTLH) in Ngablak Village

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ABSTRACT

The Uninhabitable House Assistance Program (RTLH) is a social initiative aimed at improving the quality of life for underprivileged communities. However, its implementation often encounters challenges, such as a lack of transparency and subjectivity in decision-making. To address these issues, a Decision Support System (DSS) is required to assist in selecting beneficiaries more objectively and efficiently. This study develops a DSS using the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) method. TOPSIS is chosen for its ability to compare multiple criteria and determine alternatives that closely approximate the ideal solution. The system incorporates various criteria, such as house condition, family income, number of dependents, and land ownership status. These criteria are processed through TOPSIS stages, including data normalization, criteria weighting, and final ranking determination. The implementation results demonstrate that the system effectively provides objective and transparent recommendations for RTLH beneficiaries. With this TOPSIS-based DSS, village governments can enhance the accuracy and fairness of the selection process, ensuring that the RTLH assistance program is well-targeted.

Key words: *Decision Support System, TOPSIS, Uninhabitable House Assistance.*