

Design and Development of a Web-Based Information System for Mapping Indicators of Stunting Reduction Acceleration Achievement in Jember Regency

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ABSTRACT

Stunting is a chronic nutritional problem that remains a priority issue in Jember Regency. The current staged management of stunting data results in less effective information delivery, thereby hindering monitoring, evaluation, and decision-making processes. This study aimed to design and develop a Web-Based Geographic Information System (WebGIS) for Mapping Indicators of Stunting Reduction Achievement in Jember Regency. The study employed the Research and Development (R&D) method using the Waterfall development model, which consisted of requirements analysis, system design, implementation, and system testing. Data were collected through interviews and documentation, while system testing was conducted using the Black Box Testing method. The results showed that the developed system was capable of managing indicator data and stunting prevalence data, as well as presenting information through digital maps, statistical charts, and downloadable reports. All system functions operated according to user requirements, indicating that the system can support data management, program monitoring, evaluation, and decision-making to accelerate stunting reduction efforts in Jember Regency.

Keywords: *Black Box Testing, stunting, WebGIS, information system, Waterfall.*