**Environmental Impact Assessment (EIA) on Tourism Destination Area in Seismic Zones**

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***ABSTRACT***

The Environmental Impact Assessment (EIA) is a vital tool in the development of tourist destinations in earthquake-prone regions. This study aims to evaluate the potential EIA of earthquakes on tourism destination area and the surrounding environment, focusing on the Ciletuh tourism destination in Sukabumi Regency, Indonesia. This refers to several cases of tourist destinations in Indonesia that have not yet fully implemented facilities adhering to earthquake risk mitigation standards. The methodology employed involves the integration of remote sensing data analysis and vector GIS data. Remote sensing data, SAR image, is utilized to analyze ground deformation, providing critical insights into seismic vulnerability and soil stability. Additionally, algorithms such as Random Forest are used to assess the development of built-up areas in tourist regions, by using Landsat Oli data. The result of built-up area analysis will be integrated with field survey data on community awareness of disasters. Integrating of those methods allow for more comprehensive spatial analysis, such as overlaying demographic data, zoning information, and infrastructure maps to understand the EIA. Findings from the EIA reveal a significant lack of community awareness regarding earthquake infrastructure standards, despite the area being moderately earthquake-prone. This paper recommends the implementation of earthquake-resistant design and construction techniques, along with effective mitigation strategies, to reduce the risk of damage. The thorough application of EIA not only enhances the safety and development of tourist areas but also supports environmental protection and community safety efforts..

**Keywords:** EIA, earthquake, mitigation, infrastructure