SINERGI
Universitas Mercu Buana
http://publikasi.mercubuana.ac.id/index.php/sinergi

COVER LETTER

I Gusti Agung Putu Eryani
Department of Civil Engineering, Warmadewa University, Denpasar, Bali, Indonesia
eryaniagung@gmail.com
081338489097

Friday, 09 April 2023

Dear,
We wish to submit an original research article entitled "***Determination of Flood Vulnerability Level Based on Different Number of Indicators Using AHP-GIS***" for consideration by SINERGI.

We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

In this paper, we report on / show that:

Field	:	Civil Engineering
Topic	:	Hydrological and Hydrolic Engineeering and Water Resources Engineering
Brief Background	:	The hydrological cycle and river flow regimes will be significantly affected by these global climate changes. Climate change is causing an increase in extreme weather. This causes an increase in the potential for hydrometeorological disasters, which have major implications for water resources such as increased risk of flooding and erosion, decreased water quality, and further damage to ecosystems. Vulnerability reduction and increased resilience are important approaches to a flood management strategy. One of the most important steps is identifying flood-prone areas. To identify the areas, a flood vulnerability assessment is necessary. Currently, research on flood vulnerability assessment uses a different number of indicators to determine the flood vulnerability level.
Research Problem	:	It is unknown how the number of indicators used to assess flood vulnerability affects the results. The aim of this research was to determine the effect of the number of indicators used in estimating flood vulnerability using the AHP-GIS method on the resulting flood vulnerability level.
Overview of Method	:	This research analyzed the weight of each indicator for

		five scenarios using the AHP method. This step is continued by using GIS to create an overlay map for calculating the flood hazard index for each scenario. The next step is to carry out a comparative analysis of the different levels of flood vulnerability for the five scenarios.
Significant finding	:	The aim of this research was to determine the effect of the number of indicators used in estimating flood vulnerability using AHP-GIS method on the resulting flood vulnerability level. Several scenarios with varying numbers of indicators are created. It is hoped that by knowing how the number of indicators used affects the results of estimating flood vulnerability, this will be a reference for flood management stakeholders in choosing the number of indicators to use in estimating the flood vulnerability level and the flood-prone area mapping.

We have no conflicts of interest to disclose.

Thank you for your consideration of this manuscript.

Sincerely,
I Gusti Agung Putu Eryani

AUTHORSHIP STATEMENT

I/We wish to submit an original research article entitled "[***title of article***]" for consideration by SINERGI.

All persons who meet authorship criteria are listed as authors, and all authors certify that they have participated sufficiently in work to take public responsibility for the content, including participation in the concept, design, analysis, writing, or revision of the manuscript.

Author 1		
Name	:	I Gusti Agung Putu Eryani
Affiliation	:	Department of Civil Engineering, Warmadewa University, Denpasar, Bali 80239, Indonesia
Email Address	:	eryaniagung@gmail.com
Author 2		
Name	:	Made Widya Jayantari
Affiliation	:	Department of Civil Engineering, Udayana University, Badung, Bali, Indonesia
Email Address	:	Widyajayantari13@gmail.com
Author 3		
Name	:	Suzana Ramli
Affiliation	:	School of Civil Engineering, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia
Email Address	:	Suzana799@uitm.edu.my

POTENTIAL REVIEWERS

Please submit 3 (three) potential reviewers (*that have not listed in SINERGI*) to speed up the review process that competent for the topic and has a good reputation in that area.

Reviewer 1		
Name	:	Prof. Ir. Radianta Triatmadja, Ph.D.
Affiliation	:	Civil Engineering, Universitas Gadjah Mada
Email Address	:	radianta@ugm.ac.id
Reviewer 2		
Name	:	Mahendra Andiek Maulana
Affiliation	:	Department of Civil Engineering, Institut Teknologi Sepuluh Nopember
Email Address	:	mahendra@ce.its.ac.id
Reviewer 3		
Name	:	Mohd Remy Rozainy Mohd Arif Zainol
Affiliation	:	Associate Professor in Water Resources Engineering at Universiti Sains Malaysia (USM)
Email Address	:	ceremy@usm.my