

ABSTRAK

IRMA-MODEL MITIGASI BENCANA BANJIR BERBASIS DATA SPASIAL DAN LEARNING COMMUNITY DI KABUPATEN PESAWARAN LAMPUNG

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Banjir di Kabupaten Pesawaran disebabkan oleh intensitas curah hujan yang tinggi dan juga meluapnya air sungai. Sampah yang dibuang di badan sungai menjadi salah satu penyebab banjir di Pesawaran. Penelitian ini berlokasi di Kabupaten Pesawaran Lampung di 7 kecamatan, yaitu Gedongtataan, Padang Cermin, Way Khilau, Way Ratai, Way Lima, Kedondong, Teluk Pandan. Penelitian ini bertujuan untuk: (1); menganalisis faktor-faktor yang menyebabkan masyarakat aktif berpartisipasi pada mitigasi bencana banjir di Kabupaten Pesawaran, (2); menganalisis faktor-faktor yang menjadi kebijakan dalam konversi lahan di Kabupaten Pesawaran, (3); menganalisis faktor-faktor yang menjadi bagian dari ketahanan bencana di Kabupaten Pesawaran, (4); upaya-upaya inovatif yang telah dilakukan oleh masyarakat Kabupaten Pesawaran sebagai upaya mitigasi bencana banjir, (5) menganalisis hubungan antara partisipasi masyarakat dengan kebijakan konversi lahan di Kabupaten Pesawaran, (6) menganalisis hubungan antara kebijakan konversi lahan dengan ketahanan bencana banjir di Kabupaten Pesawaran, (7) menganalisis hubungan antara partisipasi masyarakat dengan ketahanan bencana banjir di Kabupaten Pesawaran.

Penelitian menggunakan metode mixed method dengan sampel berjumlah 1398 responden. Variabel penelitian meliputi partisipasi masyarakat (*CLEAR model*), konversi lahan (*CLUE-S model*) dan ketahanan bencana banjir (*DROP model*). Analisis data menggunakan *Structural Equation Modeling AMOS (SEM-AMOS 24.0)*. Berdasarkan hasil pengujian dari 15 indikator dan 64 subindikator ditemukan ada 27 subindikator yang mampu menjadi model baru dalam mitigasi banjir di Kabupaten Pesawaran dan menjadi faktor penyebab mitigasi banjir. Inovasi-inovasi yang dilakukan masyarakat sebagai upaya mitigasi banjir yaitu alih fungsi lahan sawah menjadi perkebunan, melakukan diversifikasi pertanian, masih mempertahankan rumah adat, membangun tanggul di saluran sungai dekat rumah dan meninggikan pondasi rumah. Hasil uji menunjukkan bahwa terdapat hubungan positif dan signifikan antara partisipasi masyarakat (*CLEAR*) dengan konversi penggunaan lahan (*CLUE-S*) sebesar 8,89. Terdapat hubungan positif antara konversi lahan (*CLUE-S*) dengan ketahanan bencana banjir (*DROP*) sebesar 7,22. Terdapat hubungan positif antara partisipasi masyarakat (*CLEAR*) dengan ketahanan bencana banjir (*DROP*) sebesar 4,86.

Pemodelan menggunakan analisa *SEM AMOS*, dapat digunakan sebagai salah satu pengukuran komprehensif yang menghasilkan model baru yaitu model *IRMA (integrated resilience modes and adaptation)* yang lebih integratif dan ilmiah sehingga dapat menambah ide inovatif dalam pengembangan penelitian dan dapat digeneralisasikan di wilayah lain. Hasil penelitian menemukan bahwa partisipasi masyarakat, konversi lahan dan ketahanan bencana saling memiliki keterkaitan satu dengan lainnya sebagai upaya mitigasi banjir. Temuan dalam studi ini dapat digunakan sebagai pijakan pemerintah daerah dan BPBD untuk mengurangi kejadian banjir dan meningkatkan upaya mitigasi serta perencanaan tata ruang wilayah yang lebih bijaksana demi pengelolaan lahan berkelanjutan.

Kata Kunci: Spasial, Learnig Comunity, Clear Model, Clues Model, Drop Model, Pemodelan, Mitigasi banjir

**IRMA MODEL FLOOD DISASTER MITIGATION
BASED ON SPATIAL DATA
AND LEARNING COMMUNITY
IN PESAWARAN LAMPUNG DISTRICT**

ABSTRACT

By

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Flooding in Pesawaran Regency was caused by high intensity rainfall and overflowing river water. Garbage dumped in river bodies is one of the causes of flooding in Pesawaran. This research was located in Pesawaran Lampung Regency in 7 sub-districts, namely Gedongtataan, Padang Cermin, Way Khilau, Way Ratai, Way Lima, Kedondong, Teluk Pandan. This research aims to: (1); analyze the factors that cause the community to actively participate in flood disaster mitigation in Pesawaran Regency, (2); analyzing the factors that become policies in land conversion in Pesawaran Regency, (3); analyzing the factors that are part of disaster resilience in Pesawaran Regency, (4); innovative efforts that have been carried out by the people of Pesawaran Regency as an effort to mitigate flood disasters, (5) analyzing the relationship between community participation and land conversion policies in Pesawaran Regency, (6) analyzing the relationship between land conversion policies and flood disaster resilience in Pesawaran Regency, (7) analyze the relationship between community participation and flood disaster resilience in Pesawaran Regency. The research used a mixed method with a sample of 1398 respondents. Research variables include community participation (CLEAR model), land conversion (CLUE-S model) and flood disaster resilience (DROP model). Data analysis used Structural Equation Modeling AMOS (SEM-AMOS 24.0). Based on the test results of 15 indicators and 64 sub-indicators, it was found that there were 27 sub-indicators capable of becoming a new model for flood mitigation in Pesawaran Regency and becoming a causal factor in flood mitigation. Innovations carried out by the community as an effort to mitigate floods include changing the function of rice fields into plantations, diversifying agriculture, still maintaining traditional houses, building embankments in river channels near houses and raising house foundations. The test results show that there is a positive and significant relationship between community participation (CLEAR) and land use conversion (CLUE-S) of 8.89. There is a positive relationship between land conversion (CLUE-S) and flood disaster resilience (DROP) of 7.22. There is a positive relationship between community participation (CLEAR) and flood disaster resilience (DROP) of 4.86. The research used a mixed method with a sample of 1398 respondents. Research variables include community participation (CLEAR model), land conversion (CLUE-S model) and flood disaster resilience (DROP model). Data analysis used Structural Equation Modeling AMOS (SEM-AMOS 24.0). Based on the test results of 15 indicators and 64 sub-indicators, it was found that there were 27 sub-indicators capable of becoming a new model for flood mitigation in Pesawaran Regency and becoming a causal factor in flood mitigation. Innovations carried out by the community as an effort to mitigate floods include changing the function of rice fields into plantations, diversifying agriculture, still maintaining traditional houses, building embankments in river channels near houses and raising house foundations. The test results show that there is a positive and significant relationship between community participation (CLEAR) and land use conversion (CLUE-S) of 8.89. There is a positive relationship between land conversion (CLUE-S) and flood disaster resilience (DROP) of 7.22. There is a positive relationship between community participation (CLEAR) and flood disaster resilience (DROP) of 4.86. Modeling using AMOS SEM analysis can be used as a comprehensive measurement that produces a new model, namely the IRMA (integrated resilience modes and adaptation) model which is more integrative and scientific so that it can add innovative ideas to research development and can be generalized in other areas. The research results found that community participation, land conversion and disaster resilience are interconnected with each other as flood mitigation efforts. The findings in this study can be used as a basis for local governments and BPBDs to reduce flood events and increase mitigation efforts and wiser regional spatial planning for sustainable land management.

Keywords: Spatial, Learning Community, Clear Model, Clues Model, Drop Model, Modeling, Flood Mitigation