

Intisari

Desa Puncu merupakan salah satu desa yang berada di daerah rawan bencana erupsi Gunungapi Kelud pada tahun 2014, terutama erupsi hujan abu vulkanik dan lontaran batu (pijar). Selain potensi bahaya tersebut, kerentanan sosial dan budaya juga mempengaruhi risiko di Desa Puncu. Untuk itu, peneliti menganalisis kerentanan sosial dan budaya dengan menghubungkan hasil interpretasi objek-objek fisik permukiman yang nampak dalam citra resolusi tinggi dengan faktor-faktor kerentanan sosial dan budaya, serta asumsi-asumsi yang digunakan.

Tujuan penelitian adalah: (1) mengidentifikasi faktor sosial dalam penilaian tingkat kerentanan sosial terhadap bahaya hujan abu vulkanik dan lontaran batu (pijar) di Desa Puncu, (2) mengidentifikasi faktor budaya dalam penilaian tingkat kerentanan budaya terhadap bahaya hujan abu vulkanik dan lontaran batu (pijar) di Desa Puncu, dan (3) menghubungkan tingkat kerentanan sosial dan budaya masyarakat terhadap bahaya hujan abu vulkanik dan lontaran batu (pijar) di Desa Puncu dengan kenampakan fisik permukiman.

Penelitian ini menggunakan pendekatan kualitatif dan pendekatan kuantitatif. Pendekatan kualitatif untuk menggambarkan kerentanan sosial dan budaya masyarakat Desa Puncu terhadap bahaya hujan abu vulkanik dan lontaran batu (pijar) Gunungapi Kelud. Kemudian, pendekatan tersebut untuk mendapatkan informasi terkait kunci interpretasi data geospasial. Metode kualitatif yang digunakan, yaitu cek validitas data, melengkapi data sekunder yang didapat dari badan pemerintah, dan *matching analysis*. Selanjutnya, pendekatan kuantitatif untuk menganalisis tingkat kerentanan sosial dan budaya masyarakat Desa Puncu terhadap bahaya hujan abu vulkanik dan lontaran batu (pijar) Gunungapi Kelud. Pendekatan tersebut juga menghubungkan faktor-faktor kerentanan sosial dan budaya sebagai faktor yang mendekati untuk menginterpretasikan kenampakan-kenampakan fisik permukiman melalui citra resolusi tinggi. Metode kuantitatif yang digunakan, yaitu pembobotan, skor, dan perhitungan statistik korelasi antara variabel kerentanan sosial dan budaya dengan kerentanan objek fisik permukiman. Teknik sampling yang digunakan adalah *accidental random sampling*, yaitu mengambil wakil dari setiap blok permukiman yang kebetulan terbuka rumahnya dan dianggap mampu mewakili informasi penelitian. Sampel 200 responden.

Hasil penelitian menunjukkan bahwa analisis kualitatif (*matching analysis*) antara kerentanan sosial dan budaya dengan kerentanan objek fisik permukiman didapatkan 32% kecocokan. Analisis kuantitatif menyatakan bahwa semakin tinggi variabel jumlah anggota keluarga semakin tinggi pula variabel luas atap yang menunjukkan adanya korelasi kedua variabel tersebut, meskipun dengan taraf signifikansi yang sangat lemah, yaitu 0,042. Kemudian, semakin tinggi variabel kekerabatan semakin tinggi pula variabel blok permukiman yang menunjukkan adanya korelasi kedua variabel tersebut, meskipun dengan taraf signifikansi sangat lemah, yaitu 0,008.

Kata Kunci: Erupsi, Gunungapi Kelud, Kerentanan, Kunci Interpretasi Geospasial

Abstract

Puncu Village is one of the villages that located in disaster susceptibility areas of Kelud Volcano in 2014, particularly volcanic ash rain and pyroclastic throw (incandescent) eruption. In addition to the hazard potential, social and cultural vulnerabilities also affect risks in Puncu Village. To that end, the researchers analyze social and cultural vulnerabilities by linking the interpretation results of physical objects of settlements that appear in high-resolution images with social and cultural vulnerability factors, as well as assumptions used.

the aims of the study were: (1) to identify social factor in assessing the level of social vulnerability to risk of volcanic ash rain and pyroclastic throw (incandescent) in Puncu Village, (2) to identify cultural factor factor in assessing the level of cultural vulnerability to risk of volcanic ash rain and pyroclastic throw (incandescent) in Puncu Village, and (3) to link the social and cultural vulnerability of the community to the risk of volcanic ash rain and pyroclastic throw (incandescent) in Puncu Village with physical objects of settlements.

This research uses qualitative approach and quantitative approach. A qualitative approach to describe the social and cultural vulnerability of Puncu Village community to the risk of volcanic ash rain and pyroclastic throw (incandescent) of Kelud Volcano. Then, the approach is to obtain information related to the key interpretation of geospatial data. Qualitative methods used, namely check the validity data, complement the secondary data obtained from government, and matching analysis. Furthermore, a quantitative approach to analysis the level of social and cultural vulnerability of Puncu Village community to the risk of volcanic ash rain and pyroclastic throw (incandescent) Kelud Volcano. The approach links social and cultural vulnerability factors as an approximate factor to interpreting the physical appearance of settlements through high-resolution image. Quantitative methods are used, namely weighting, scoring, and statistical correlation calculations between social and cultural vulnerability variables with the vulnerability of physic object of settlement. The sampling technique use is accidental random sampling, which is take the representative of every block of settlements that happens to be open his/her home and it is considered capable of representing the research information. A sample are 200 respondents.

The results showed that the qualitative analysis (matching analysis) between social and cultural vulnerability with the vulnerability of physic objects of settlement obtained 32% match. Quantitative analysis states that the higher of the family members variable is, the higher also the roof area variable which indicates the correlation of both variables, although with a very weak level of significance, that is 0,042. Then, the higher of the kinship variable is, the higher also the settlement blocks variable which indicates the correlation of both variables, although with a very weak level of significance, that is 0,008.

Keyword: Eruption, Kelud Volcano, Vulnerability, Key of Geospatial Interpretation