



ANALISIS TINGKAT KERENTANAN SOSIAL WILAYAH TERHADAP BENCANA COVID-19 DI JAWA TENGAH

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INTISARI

Bencana COVID-19 (*Coronavirus Disease 2019*) memberikan dampak sosial ekonomi di berbagai wilayah, termasuk Jawa Tengah. Kejadian bencana COVID-19 berpotensi memperparah kerentanan sosial. Analisis tingkat kerentanan sosial terhadap bencana COVID-19 menarik dan penting untuk mengidentifikasi sebaran kondisi kerentanan wilayah secara sosial ekonomi yang dikaitkan dengan kejadian bencana. Penelitian ini bertujuan untuk : (1) Menganalisis tingkat kerentanan sosial wilayah di Jawa Tengah, (2) Menganalisis distribusi spasial dan temporal bencana COVID-19 di Jawa Tengah, (3) Menganalisis distribusi spasial tingkat kerentanan sosial wilayah terhadap bencana COVID-19 di Jawa Tengah.

Penelitian ini menggunakan metode analisis kuantitatif dengan perhitungan *Principle Component Analysis* (PCA) dan *Social Vulnerability Index* (SoVI) untuk mengidentifikasi tingkat kerentanan sosial wilayah di Jawa Tengah. Analisis tingkat bencana COVID-19 menggunakan data kumulatif kasus positif yang dianalisis secara spasial dan temporal menggunakan ArcGIS. Analisis tingkat kerentanan sosial terhadap bencana COVID-19 menggunakan metode *scoring* dan analisis tumpang-susun untuk mengidentifikasi tipologi kerentanan wilayah di setiap kabupaten/kota serta distribusi spasial kondisi kerentanan wilayah. Penelitian ini menggunakan data sekunder meliputi data statistik dan data jumlah kasus terkonfirmasi positif COVID-19 (Maret 2020 – Juli 2021) setiap kabupaten/kota di Jawa Tengah.

Hasil analisis kerentanan sosial menunjukkan bahwa Jawa Tengah memiliki 4 wilayah dengan tingkat kerentanan sosial sangat tinggi yaitu Kabupaten Cilacap, Kabupaten Banyumas, Kabupaten Brebes, dan Kota Semarang. Sedangkan sekitar 46% wilayah Jawa Tengah memiliki tingkat kerentanan sosial sedang. Jawa Tengah memiliki distribusi spasial dan temporal bencana COVID-19 terkonsentrasi pada wilayah dengan jumlah penduduk dan kepadatan penduduk tinggi. Kota Semarang sebagai wilayah dengan tingkat bencana COVID-19 tertinggi di Jawa Tengah dipengaruhi tingginya jumlah kasus positif COVID-19. Jawa Tengah memiliki 3 wilayah dengan tingkat kerentanan sosial terhadap bencana COVID-19 sangat tinggi yaitu Kota Semarang, Kabupaten Cilacap, dan Kabupaten Banyumas. Sedangkan sekitar 43% atau hampir setengah dari total wilayah kabupaten/kota di Jawa Tengah memiliki tingkat kerentanan sosial terhadap bencana COVID-19 sedang.

Kata Kunci : Kerentanan Sosial, Indeks Kerentanan Sosial, Bencana, COVID-19



ANALYSIS OF REGIONAL SOCIAL VULNERABILITY LEVELS TOWARD COVID-19 DISASTER IN CENTRAL JAVA

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ABSTRACT

COVID-19 (Coronavirus Disease 2019) disaster has had a socio-economic impact in various regions, including Central Java. COVID-19 disaster has the potential to exacerbate social vulnerabilities. Analysis of the level of social vulnerability to the COVID-19 disaster is interesting and important to identify the distribution of the socio-economic vulnerability of the region associated with disaster events. This study aims to: (1) analyze the level of regional social vulnerability in Central Java, (2) analyze the spatial and temporal distribution of the COVID-19 disaster in Central Java, (3) analyze the spatial distribution of the level of regional social vulnerability to the COVID-19 disaster in Central Java.

This study uses a quantitative analysis method with the calculation of the Principle Component Analysis (PCA) and the Social Vulnerability Index (SoVI) to identify the level of regional social vulnerability in Central Java. COVID-19 disaster level analysis uses cumulative data of positive cases which are analyzed spatially and temporally using ArcGIS. Analysis of the level of social vulnerability to COVID-19 disaster uses scoring and overlay analysis methods to identify the typology of regional vulnerability in each district/city as well as the spatial distribution of regional vulnerability conditions. This study uses secondary data including statistical data and data on the number of positive confirmed cases of COVID-19 (March 2020 – July 2021) for each district/city in Central Java.

The results of the social vulnerability analysis show that Central Java has 4 areas with very high levels of social vulnerability, namely Cilacap Regency, Banyumas Regency, Brebes Regency, and Semarang City. Meanwhile, about 46% of the Central Java region has a moderate level of social vulnerability. Central Java has the spatial and temporal distribution of the COVID-19 disaster, which is concentrated in areas with a high population and population density. Semarang City as the area with the highest COVID-19 disaster rate in Central Java is influenced by the high number of positive COVID-19 cases. Central Java has 3 areas with a very high level of social vulnerability to the COVID-19 disaster, namely Semarang City, Cilacap Regency, and Banyumas Regency. Meanwhile, around 43% or almost half of the total districts/cities in Central Java have a moderate level of social vulnerability to the COVID-19 disaster.

Keywords: Social Vulnerability, Social Vulnerability Index, Disaster, COVID-19