

CLIMATE MAPPING AND ITS EFFECT ON THE DISTRIBUTION OF PANDEMIC CORONA VIRUS DISEASES-19 (COVID-19)

by Dyah Respati Suryo Sumunar, Nursida Arif, Nurul Khotimah

ABSTRACT

The Coronavirus Disease-19 (Covid-19) has caused worldwide panic in the past five months since the first case was announced in Wuhan, China in December 2019. Various preventive efforts by the government have not been able to prevent the rapid spread of COVID-19. Indonesia is one of the countries affected and is spreading rapidly throughout the provinces with the highest cases on the island of Java. The uncontrolled movement of humans from one place to another is one of the factors this virus spreads rapidly. In addition, the geographic diversity of regional characteristics in Indonesia, especially the climate, is interesting to investigate how it affects the spread of Covid-19. In this study, the climate parameters used were temperature and humidity.

This study aims to analyze the climate correlation to the distribution of covid-19 in Yogyakarta and Gorontalo using geographic information system (GIS) analysis and descriptive statistical analysis. GIS is currently the main tool used around the world to visualize the distribution of covid-19. Covid-19 distribution data is obtained from official government data while climate data is obtained from the Meteorology, Climatology, and Geophysics Agency as well. Analysis of city temperatures using Landsat 8 OLI remote sensing satellite imagery.

The results of this study indicate that the climate does not have a significant effect on the distribution of Covid-19 in Gorontalo and Yogyakarta. This research is a contribution to geographic science about the correlation of climate with the spread of the virus, especially Covid-19 and as a contribution to a strategy for dealing with Covid-19 in areas with different characteristics.

Kata Kunci: *Keywords: covid-19, climate, geographic information system*