ABSTARCT

CHAERUNNISA ARINI, 2023. ***Seawater Intrusion Zoning Based on Salinity, Electrical Conductivity (DHL) and Total Dissolved Solid (TDS) Parameters Based on Geographic Information Systems on the Coast of Kandanghaur District, Indramayu Regency.*** *Department of Geography Education, Faculty of Teacher Training and Education, Siliwangi University.*

Water resources are important and cannot be separated from humans. All creatures on earth need water for all their activities. The coastal communities of Kandanghaur District use groundwater to meet their daily needs. Ground water in coastal areas is usually affected by sea water and is known as sea water intrusion. Regular use of groundwater from year to year, as well as changes in land use, make it possible for seawater intrusion to occur on the coast of Kandanghaur District. The aim of this research is to determine the factors of sea water intrusion and the zoning of sea water intrusion based on the parameters salinity, Electrical Conductivity (DHL) andTotal Dissolved Solid (TDS) on the coast of Kandanghaur District, Indramayu Regency. The method used is a quantitative method with data analysis techniques using interpolation and Scoring use Software Arcgis. The sampling technique uses Systematic Grid Sampling. The results of the research reveal that the factors for sea water intrusion on the coast of Kandanghaur District are; Human activities in the form of groundwater exploitation as well as the use and area of pond land, Geological Conditions in the form of alluvial rocks and Beach Characteristics in the form of sandy and rocky beaches while the results of zoning of sea water intrusion in Kandanghaur District, Indramayu Regency which data processing has been carried out consist of 3 zones, namely Zone No Intrusion occurred with an average of 0.0 – 0.9, Light Intrusion with an average of 1.0 – 1.9 and Moderate Intrusion with an average of 2.0 – 2.9 from the results of the interpolation analysis, scoring and reclassify based on three parameters.

Keywords: *Zoning, Seawater Intrusion, Salinity, DHL and TDS*