

## SARI

### PEMETAAN GEOLOGI DAERAH DESA TAYEMTIMUR DAN SEKITARNYA, KECAMATAN KARANGPUCUNG, KABUPATEN CILACAP, JAWA TENGAH

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Lokasi penelitian terletak pada Daerah Desa Tayemtimur Dan Sekitarnya, Kecamatan Karang Pucung, Kabupaten Cilacap Provinsi Jawa Tengah, yang secara administratif meliputi 3 Desa yaitu Desa Tayemtimur, Desa Tayem Timur, dan Desa Cijoho serta meliputi satu Kecamatan yaitu Kecamatan Karang Pucung. Secara astronomis daerah penelitian terletak pada koordinat UTM WGS 84 X: 268.900 m – 271.900 m dan Y: 9.179.600 m – 9.182.400 m. Lokasi penelitian masuk kedalam peta geologi regional lembar Majenang dengan luas daerah pemetaan adalah 5 x 5 km<sup>2</sup>. Hasil dari penelitian membahas mengenai geologi daerah penelitain, meliputi kondisi geomorfologi, struktur geologi, stratigrafi, sejarah geologi, serta potensi bencana dan sumberdaya geologi. Geomorfologi daerah penelitian tersusun atas bentang alam pegunungan lipatan yang telah tererosi, menghasilkan 3 satuan geomorfologi yaitu Satuan Punggungan Sinklin Sentul, Satuan Punggungan Sinklin Igir Kemukus, dan Satuan Dataran Aluvial Tayem. Lokasi penelitian dikontrol oleh aktifitas deformasi struktur geologi berupa sesar mendatar kanan yang membentang dari barat daya-timur laut, atau relatif Utara-Selatan, mengindikasikan Pola Jawa. Stratigrafi daerah penelitian berturut-turut dari tua ke muda adalah Satuan Batupasir, Satuan Batupasir Karbonatan, dan Satuan Aluvial. Sejarah geologi daerah penelitian dimulai dari aktifitas vulkanisme Serayu Selatan dan Serayu Utara yang aktif pada kala Miosen akhir, yang mengendapkan litologi pada daerah penelitian sebagai produk vulkaniklastik, lalu pada kala pliosen terjadi kenaikan muka airlaut yang menyebabkan terendapkannya Batupasir Karbonatan lalu terjadi deformasi yang mengakibatkan adanya sesar manganan yang berarah barat laut-timurlaut lalu pada periode kuarter terjadi proses eksogen yang mengendapkan satuan endapan alluvial.

Kata kunci : Pemetaan geologi, geomorfologi, stratigrafi.

## ABSTRACT

### GEOLOGICAL MAPPING OF TAYEMTIMUR AND SURROUNDING AREA, KARANGPUCUNG DISTRICT, CILACAP REGENCY, CENTRAL JAVA

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*The research location is located in the Tayemtimur and Surrounding Village Area, Karang Pucung District, Cilacap Regency, Central Java Province, which administratively includes 3 villages, namely Baru Village, East Tayem Village, and Cijoho Village and includes one District, namely Karang Pucung District. Astronomically the research area is located at the coordinates of UTM WGS 84 X: 268,900 m - 271,900 m and Y: 9,179,600 m - 9,182,400 m. The research location is included in the regional geological map of the Majenang sheet with the mapping area of 5 x 5 km<sup>2</sup>. The results of the study discuss the geology of the research area, including geomorphological conditions, geological structures, stratigraphy, geological history, and potential disasters and geological resources. The geomorphology of the research area is composed of folded mountainous landforms that have been eroded, resulting in 3 geomorphological units, namely the Sentul Homocline Ridge Unit, the Kemukus Igir Homocline Mountain Unit, and the Tayem Alluvial Plains Unit. The research location is controlled by the deformation activity of the geological structure in the form of a right horizontal fault that stretches from the southwest-northeast, or relatively North-South, indicating a Javanese pattern. The stratigraphy of the study area from old to young is Sandstone Unit, Carbonate Sandstone Unit, and Alluvial Unit, respectively. The geological history of the research area starts from the volcanic activities of South Serayu and North Serayu which were active during the late Miocene, which deposited lithology in the study area as volcanoclastic products, then during the Pliocene sea level rise occurred which caused the deposition of Carbonate Sandstones and then deformation which resulted in faults. food that traverses northwest-northeast and then in the quarter period an exogenous process occurs which precipitates the alluvial sediment unit.*

*Keywords: Geological mapping, geomorphology, stratigraphy.*