

## Daftar Pustaka

- Arrighi, C., Tanganelli, M., Cristofaro, M. T., Cardinali, V., Marra, A., Castelli, F., & De Stefano, M. (2022). Multi-risk assessment in a historical city. In *Natural Hazards* (Issue 0123456789). Springer Netherlands. <https://doi.org/10.1007/s11069-021-05125-6>
- Bani, P., Kunrat, S., & Kamil Syahbana, D. (2020). Insights into the recurrent energetic eruptions that drive Awu, among the deadliest volcanoes on Earth. *Natural Hazards and Earth System Sciences*, 20(8), 2119–2132. <https://doi.org/10.5194/nhess-20-2119-2020>
- Bani, P., Le Glas, E., Kristianto, Aiuppa, A., & Syahbana, D. K. (2020). *The little known Awu volcano is the highest CO<sub>2</sub> degassing source on earth*. 1640(57).
- BNPB. (2011). *Panduan Nasional Pengkajian Risiko Tsunami Indonesia*.
- Peraturan Kepala Badan Nasional Penanggulangan Bencana No. 02 Tahun 2012 tentang Pedoman Umum Pengkajian Risiko Bencana, (2012).
- BNPB. (2019a). *Modul Teknis Penyusunan Kajian Risiko Bencana Banjir*. Direktorat Pengurangan Risiko Bencana BNPB.
- BNPB. (2019b). *Modul Teknis Penyusunan Kajian Risiko Bencana Gempabumi*. Direktorat Pengurangan Risiko Bencana BNPB.
- BNPB. (2019c). *Modul Teknis Penyusunan Kajian Risiko Bencana Gunung Api*. Direktorat Pengurangan Risiko Bencana BNPB.
- BNPB. (2019d). *Modul Teknis Penyusunan Kajian Risiko Bencana Tsunami*. Direktorat Pengurangan Risiko Bencana BNPB.
- BNPB. (2022). *Potensi Ancaman Bencana*. Pengetahuan Kebencanaan BNPB. <https://bnpb.go.id/potensi-ancaman-bencana>
- Christian, Y., Desmiwati, D., & Damar, A. (2020). The Blessed Land: Internalization of Past Disaster into Culture by Sangihe's Coastal Community. *International Journal of Disaster Management*, 3(1), 12–28. <https://doi.org/10.24815/ijdm.v3i1.17085>
- Di Leo, J. F., Wookey, J., Hammond, J. O. S., Kendall, J. M., Kaneshima, S., Inoue, H., Yamashina, T., & Harjadi, P. (2012). Deformation and mantle flow beneath the Sangihe subduction zone from seismic anisotropy. *Physics of the Earth and Planetary Interiors*, 194–195, 38–54. <https://doi.org/10.1016/j.pepi.2012.01.008>
- Dzurisin, D., Lisowski, M., Roeloffs, E. A., Schilling, S. P., Fournier, R., Linde, A. T., Lu, Z., Tilling, R. I., & Thompson, R. A. (2005). Volcano Deformation Geodetic Monitoring Techniques. In *Syria Studies* (Vol. 7, Issue 1). [https://www.researchgate.net/publication/269107473\\_What\\_is\\_governance/link/548173090cf22525dcb61443/download%0Ahttp://www.econ.upf.edu/~reynal/Civilwars\\_12December2010.pdf%0Ahttps://think-asia.org/handle/11540/8282%0Ahttps://www.jstor.org/stable/41857625](https://www.researchgate.net/publication/269107473_What_is_governance/link/548173090cf22525dcb61443/download%0Ahttp://www.econ.upf.edu/~reynal/Civilwars_12December2010.pdf%0Ahttps://think-asia.org/handle/11540/8282%0Ahttps://www.jstor.org/stable/41857625)
- ESRI. (2022a). *Data classification methods*. <https://pro.arcgis.com/en/pro-app/latest/help/mapping/layer-properties/data-classification-methods.htm>

- ESRI. (2022b). *FAQ: What is the Jenks optimization method?*  
<https://support.esri.com/en/technical-article/000006743>
- Gandhi, U. (2019). *Multi Criteria Overlay Analysis (QGIS3)*. QGIS Tutorials and Tips.  
[https://www.qgistutorials.com/en/docs/3/multi\\_criteria\\_overlay.html](https://www.qgistutorials.com/en/docs/3/multi_criteria_overlay.html)
- Hadiani, A., Ulinnuha, H., Heliani, L. S., Sarwadi, A., Kurniawan, A., Budisetiawan, J., Suhubawa, L., Suryanto, W., Pratama, C., Mutaqin, B. W., Nayati, W., Bayumurti, Y., Ilahi, R., & Widjonarko, S. Y. (2021). Integrating Multi-Hazard Risk Analysis into Spatial Planning for Small Island: Study Case of Sangihe Island. *IOP Conference Series: Earth and Environmental Science*, 799(1). <https://doi.org/10.1088/1755-1315/799/1/012008>
- Heliani, L. S. (2021). *Peta Multi Ancaman Bencana Wilayah Sangihe (Hasil Penelitian)*.
- Heliani, L. S., Pratama, C., Parseno, P., Widjajanti, N., & Lestari, D. (2020). Gps-Derived Secular Velocity Field Around Sangihe Island and Its Implication To the Molucca Sea Seismicity. *Geomatika*, 26(2), 107. <https://doi.org/10.24895/jig.2020.26-2.1199>
- Hermon, D. (2015). *Geografi Bencana Alam* (1st ed.). Raja Grafindo Persada.
- Jaffe, L. A., Hilton, D. R., Fischer, T. P., & Hartono, U. (2004). Tracing magma sources in an arc-arc collision zone: Helium and carbon isotope and relative abundance systematics of the Sangihe Arc, Indonesia. *Geochemistry, Geophysics, Geosystems*, 5(4), 1–17. <https://doi.org/10.1029/2003GC000660>
- JICA, BNPB, & Sangihe, B. K. K. (2014). *Rencana Penanggulangan Bencana Daerah Kabupaten Kepulauan Sangihe 2014 - 2018*.
- Juhadi, Muis, A., & Sriyanto. (2018). *Kearifan Lokal dalam Mitigasi Bencana* (A. Muis (Ed.)). Penerbit Fastindo.
- Kementerian ESDM. (2016). Pengenalan Gempabumi. In *Departemen Energi dan Sumber Daya Mineral*.  
[https://www.esdm.go.id/assets/media/content/Pengenalan\\_Gempa\\_Bumi.pdf](https://www.esdm.go.id/assets/media/content/Pengenalan_Gempa_Bumi.pdf)
- Khatakho, R., Gautam, D., Aryal, K. R., Pandey, V. P., Rupakhety, R., Lamichhane, S., Liu, Y. C., Abdouli, K., Talchabhadel, R., Thapa, B. R., & Adhikari, R. (2021). Multi-hazard risk assessment of kathmandu valley, Nepal. *Sustainability (Switzerland)*, 13(10). <https://doi.org/10.3390/su13105369>
- Kumala, S. A., & Wahyudi. (2016). Analisis Nilai Pga (Peak Ground Acceleration) Untuk Seluruh Wilayah Kabupaten dan Kota di Jawa Timur. *Inersia*, 1, 37–43.
- Mambu, B., Tamuntuan, G. H., & Pasau, G. (2019). Simulasi Ketinggian dan Waktu Tiba Gelombang Tsunami di Tahuna Sebagai Upaya Mitigasi Bencana. *Jurnal MIPA*, 8(1), 13. <https://doi.org/10.35799/jm.8.1.2019.22371>
- Nugroho, K. F., & Heliani, L. S. (2019). Analysis of Sangihe Islands Movements derived from Recent GPS Observation. *Journal of Geospatial Information Science and Engineering*, 2, 220–227.
- Paramita, P., Wiguna, S., Shabrina, F. Z., & Sartimbul, A. (2021). Pemetaan Bahaya Tsunami Wilayah Kabupaten Serang Bagian Barat Pemetaan Bahaya Tsunami Wilayah Kabupaten Serang Bagian Barat Menggunakan Sistem Informasi Geografis.

*Buletin Oseanografi Marina*, 10(October), 233–241.  
<https://doi.org/10.14710/buloma.v10i3.37228>

- Pasau, G., & Tanauma, A. (2011). Pemodelan Sumber Gempa Di Wilayah Sulawesi Utara Sebagai Upaya Mitigasi Bencana Gempa Bumi. *Jurnal Ilmiah Sains*, 15(1), 202. <https://doi.org/10.35799/jis.11.2.2011.208>
- Prasetio, A. D., Hasib, M., Amran, A., Syuhada, Febriani, F., Dewi, C. N., & Anggono, T. (2021). Local seismotectonic analysis of the July 2019 Molucca Sea earthquake sequence based on moment tensor solutions. *Geoscience Letters*, 8(1). <https://doi.org/10.1186/s40562-021-00200-z>
- Rahman, A. (2019). *Pengantar Kartografi & Sistim Informasi Geografis (Teori dan Praktik)*. February, 168.
- Salatun, S. R., Rogi, O. H. ., & Lintong, S. (2019). Analisis Tingkat Kerentanan Gunung Api Awu Di Kabupaten Kepulauan Sangihe. *Spasial*, 6(3), 851–861.
- Savetlana, S., Sukmana, I., Muhammad, M. A., & Yudamson, A. (Eds.). (2019). *Ilmu-ilmu Teknik : Kebencanaan 2019* (1st ed.). UPT Perpustakaan Universitas Lampung.
- Sumantri, S. H., Supriyanto, M., Sobar, S., & Widana, I. D. K. K. (2019). *Buku Sistem Informasi* (Issue September).
- Susilanto, P., Ngadmanto, D., Sunardi, B., & Rohadi, S. (2019). Analisis Kecepatan Gelombang Geser (Vs) Sebagai Upaya Mitigasi Bencana Gempabumi di Kulonprogo, DIY. *Jurnal Lingkungan Dan Bencana Geologi*, 10(2), 41–50. <https://doi.org/10.34126/jlbg.v10i2.215>
- Ulinnuha, H., Lestari, D., Heliani, L. S., Widjajanti, N., Pratama, C., Parseno, P., & Nugroho, K. F. (2019). GPS Technology Implementation for Sangihe Islands' Movement Monitoring in 2017-2019. *JGISE: Journal of Geospatial Information Science and Engineering*, 2(2), 206–211. <https://doi.org/10.22146/jgise.51033>
- UNESCO-IOC. (2007). *Rangkuman Istilah Tsunami*. Jakarta Tsunami Information Centre (JTIC).