

## DAFTAR PUSTAKA

- Agussaini, H., Sirojuzilam, Rujiman, & Purwoko, A. (2022). A New Approach of the Tsunami Mitigation Strategies for the City of Banda Aceh, Indonesia. *Indonesian Journal of Geography*, 54(1), 62–69. <https://doi.org/10.22146/ijg.66500>
- Al Qossam, I., Laila Nugraha, A., & Sabri, L. (2020). Pemetaan Spasial Tingkat Risiko Bencana Tsunami di Wilayah Kabupaten Serang Menggunakan Citra SPOT-6. *Jurnal Geodesi Undip*, 9(2).
- Albalawi, E. K. (2023). Comparing pixel-based to object-based image classifications for assessing LULC change in an arid environment of Northern West Saudi Arabia. *The Egyptian Journal of Environmental Change*, 15(1), 55.
- Aldiansyah, S., Ningsih, D. S. W., & Saputra, R. A. (2023). Evaluation of Regional Spatial Development on Landslide and Flood Prone with Actual Site Conditions in Kendari City. *Jurnal Wilayah dan Lingkungan*, 11(1).
- Amri, I., & Giyarsih, S. R. (2022). Monitoring urban physical growth in tsunami-affected areas: a case study of Banda Aceh City, Indonesia. *GeoJournal*, 87(3), 1929–1944. <https://doi.org/10.1007/s10708-020-10362-6>
- Anderson, J. R. (1976). land use and land cover classification system for use with remote sensor data. *US Government Printing Office*, 964.
- Anugrah, S. D., Zaim, Y., Rizal, Y., Aswan, & Istiyanati. (2015). A preliminary study of paleotsunami deposit along the south coast of East Java: Pacitan-Banyuwangi. *AIP Conference Proceedings*, 1658. <https://doi.org/10.1063/1.4915251>
- ArcGIS Pro. (2024). *Data classification methods*. <https://pro.arcgis.com/en/pro-app/latest/help/mapping/layer-properties/data-classification-methods.htm>.
- Arif, N., Wardhana, A., & Martiana, A. (2022). Spatial analysis of the urban physical vulnerability using remote sensing and geographic information systems (case study: Yogyakarta City). *IOP Conference Series: Earth and Environmental Science*, 986(1). <https://doi.org/10.1088/1755-1315/986/1/012067>
- Azzahra, F. F., Muryani, C., & Nugraha, S. (2023). Penggunaan Lahan Permukiman pada Wilayah Rawan Tsunami di Perkotaan Pacitan Provinsi Jawa Timur. *Indonesian Journal of Environment and Disaster (IJED)*, 2(2).
- Badan Penanggulangan Bencana Daerah Kabupaten Pacitan. (2022). *Dokumen Kajian Risiko Bencana Kabupaten Pacitan Tahun 2022-2026*.
- Badan Penanggulangan Bencana Daerah Kabupaten Pacitan. (2023). *Rencana Penanggulangan Bencana Pemerintah Daerah Kabupaten Pacitan Provinsi Jawa Timur*.
- Benazir, Triatmadja, R., Yuwono, N., Rahardjo, A. P., Kuswandi, Triatmodjo, B., & Nizam. (2024). Investigating the tsunami-mitigating properties of vegetated coastal areas in Pacitan Bay, Indonesia: A synergistic approach of numerical modelling and field observations. *Journal of Earth System Science*, 133(1). <https://doi.org/10.1007/s12040-023-02242-7>

- Berryman, K. (2005). *Review of Tsunami Hazard and Risk in New Zealand*.
- Biswas, S., & Sil, A. (2023). Tsunami Vulnerability Assessment and Multi-Criteria Decision Making Analysis of Eastern Coast of India Using GIS-Based Tools. *KSCE Journal of Civil Engineering*, 27(3), 1270–1287. <https://doi.org/10.1007/s12205-023-1493-y>
- Blaschke, T., Lang, S., & Hay, G. J. (2008). *Object-Based Image Analysis: Spatial Concepts for Knowledge-Driven Remote Sensing Applications*.
- BNPB. (2023). *Risiko Bencana Indonesia “Memahami Risiko Sistemik di Indonesia.”*
- BPS Kabupaten Pacitan. (2022). *Kecamatan Pacitan Dalam Angka 2022*.
- BPS Kabupaten Pacitan. (2023). *Kabupaten Pacitan Dalam Angka 2023*.
- Buchori, I., Sugiri, A., Mussadun, M., Wadley, D., Liu, Y., Pramitasari, A., & Pamungkas, I. T. D. (2018). A predictive model to assess spatial planning in addressing hydro-meteorological hazards: A case study of Semarang City, Indonesia. *International Journal of Disaster Risk Reduction*, 27, 415–426. <https://doi.org/10.1016/j.ijdr.2017.11.003>
- Cassidy, J. F. (2013). *Encyclopedia of Natural Hazards* (P. T. Bobrowsky, Ed.). Springer Netherlands. <https://doi.org/10.1007/978-1-4020-4399-4>
- Choirunnisa, L. A. D., & Gravitiani, E. (2022). Aplikasi Benefit Transfer pada Pengelolaan Ekosistem Mangrove Pesisir Kabupaten Pacitan Berdasarkan Pendekatan Circular Economy. *Jurnal Kebijakan Sosial Ekonomi Kelautan dan Perikanan*, 12(1), 65. <https://doi.org/10.15578/jksekp.v12i1.10048>
- Dall’Osso, F., Dominey-Howes, D., Tarbotton, C., Summerhayes, S., & Withycombe, G. (2016). Revision and improvement of the PTVA-3 model for assessing tsunami building vulnerability using “international expert judgment”: introducing the PTVA-4 model. Dalam *Natural Hazards* (Vol. 83, Nomor 2, hlm. 1229–1256). Springer Netherlands. <https://doi.org/10.1007/s11069-016-2387-9>
- Danoedoro, P. (2012). *Pengantar Penginderaan Jauh Digital*. Penerbit ANDI.
- Djalante, R., Garschagen, M., Thomalla, F., & Shaw, R. (2017). *Disaster Risk Reduction in Indonesia Progress, Challenges, and Issues*. Springer International Publishing.
- Erlangga, W. (2020). *Karakteristik dan Parameter Subduksi Sumber Gempa Pulau Jawa*. XXV(2).
- Hall, S., Pettersson, J., Meservy, W., Harris, R., Agustinawati, D., Olson, J., & McFarlane, A. (2017). Awareness of tsunami natural warning signs and intended evacuation behaviors in Java, Indonesia. *Natural Hazards*, 89(1), 473–496. <https://doi.org/10.1007/s11069-017-2975-3>
- Hidayah, Z., Rohmah, N. N., & Wardhani, M. K. (2022). Coastal Vulnerability Study on Potential Impact of Tsunami and Community Resilience in Pacitan Bay East Java. *Forum Geografi*, 36(1). <https://doi.org/10.23917/forgeo.v36i1.17160>
- Hidayati, D., Widayatun, Hartana, P., Triyono, & Kusumawati, T. (2011). *Panduan Mengukur Tingkat Kesiapsiagaan Masyarakat dan Komunitas Sekolah*. <https://www.researchgate.net/publication/322095576>

- Hossain, M. D., & Chen, D. (2019). Segmentation for Object-Based Image Analysis (OBIA): A review of algorithms and challenges from remote sensing perspective. Dalam *ISPRS Journal of Photogrammetry and Remote Sensing* (Vol. 150, hlm. 115–134). Elsevier B.V. <https://doi.org/10.1016/j.isprsjprs.2019.02.009>
- Huda, M. B. (2023). *Analisis Bahaya Tsunami dan Penentuan Jalur Evakuasi Menggunakan Sistem Informasi Geografis di Wilayah Pesisir (Studi Kasus: Kecamatan Pacitan Kabupaten Pacitan)*. Universitas Muhammadiyah Surakarta.
- Iriani, L. G. (2017). *Determining Tsunami Evacuation Building Location and Evacuation Routes based on Population Dynamic and Human Behaviour in Disaster Evacuation in Pacitan Sub-District Area*. Universitas Gadjah Mada.
- Jacobsen, K. (2023). Which Satellite Image should be used for Mapping. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 10(1-W1-2023), 827–834. <https://doi.org/10.5194/isprs-annals-X-1-W1-2023-827-2023>
- Kaiser, G., Scheele, L., Kortenhaus, A., Løvholt, F., Römer, H., & Leschka, S. (2011). The influence of land cover roughness on the results of high resolution tsunami inundation modeling. *Natural Hazards and Earth System Science*, 11(9), 2521–2540. <https://doi.org/10.5194/nhess-11-2521-2011>
- KBBI. (2023, Juli 31). <https://kbbi.web.id/evaluasi>.
- Khakhim, N., Lazuardi, W., Wicaksono, A., Pratama, D. N. D., & Musthofa, A. (2021). Priority areas for mangrove conservation to support disaster mitigation efforts in pacitan bay. *International Journal of Safety and Security Engineering*, 11(5), 593–603. <https://doi.org/10.18280/IJSSE.110511>
- Kurniawan, A., Satria, R. A., & Pratama, M. B. (2020). Analyzing Tsunami Hazard using Numerical Modelling: Study Case Palu, Sulawesi Tengah, Indonesia. *IOP Conference Series: Materials Science and Engineering*, 982(1). <https://doi.org/10.1088/1757-899X/982/1/012036>
- Lestari, T. Y., Rachman, R., & Septhiany Prihatiningsih Syamsuddin, A. (2020). Comparative Analysis of Disaster Management Between Indonesia and Japan from Regulatory and Institutional Aspects. *MATEC Web of Conferences*, 331, 01007. <https://doi.org/10.1051/mateconf/202033101007>
- Li, M., Zang, S., Zhang, B., Li, S., & Wu, C. (2014). A review of remote sensing image classification techniques: The role of Spatio-contextual information. *European Journal of Remote Sensing*, 47(1), 389–411. <https://doi.org/10.5721/EuJRS20144723>
- Manurung, P. (2017). Kepadatan Permukiman dan Ketersediaan Ruang Bermain Anak. *Jurnal Arsitektur dan Perkotaan "KORIDOR,"* 08(02), 149–153.
- Mardiatno, D., Malawani, M. N., & Nisaa', R. M. rifatun. (2020). The future tsunami risk potential as a consequence of building development in Pangandaran Region, West Java, Indonesia. *International Journal of Disaster Risk Reduction*, 46. <https://doi.org/10.1016/j.ijdr.2020.101523>
- Mardiatno, D., Wahyu Permatasari, C., Ngainul Malawani, M., & Nuraini Sekarsih, F. (2017). Tsunami Risk Evaluation Based on Land Suitability for Settlement

- in Pacitan Coastal Area, East Java. *Advances in Social Science, Education and Humanities Research*, 79.
- Marfai, M. A., Fatchurohman, H., & Cahyadi, A. (2019). An Evaluation of Tsunami Hazard Modeling in Gunungkidul Coastal Area using UAV Photogrammetry and GIS. Case Study: Drini Coastal Area. *E3S Web of Conferences*. <https://doi.org/10.1051/e3sconf/201>
- Mostafizi, A., Wang, H., Cox, D., & Dong, S. (2019). An agent-based vertical evacuation model for a near-field tsunami: Choice behavior, logical shelter locations, and life safety. *International Journal of Disaster Risk Reduction*, 34, 467–479. <https://doi.org/10.1016/j.ijdr.2018.12.018>
- Muta'ali, L. (2013). *Penataan Ruang Wilayah dan Kota (Tinjauan Normatif - Teknis)*. Badan Penerbit Fakultas Geografi (BPFG).
- Muzani, M., Mataburu, I. B., & Tafiati, T. (2024). Vulnerability and tsunami disaster on the west coast Banten province, Indonesia. *All Earth*, 36(1), 1–12. <https://doi.org/10.1080/27669645.2024.2323355>
- Nawangsari, D., Nurhadi, N., & Sarwono, S. (2021). The preparedness of schools in dealing tsunami disaster threat in pacitan coastal bay, pacitan regency. *IOP Conference Series: Earth and Environmental Science*, 683(1). <https://doi.org/10.1088/1755-1315/683/1/012073>
- Nisaa, R. M., & Nurmaya, A. (2022). Management and vulnerability analysis of the existing built-up area in the Pangandaran coastal area to the tsunami disaster. *IOP Conference Series: Earth and Environmental Science*, 1109(1). <https://doi.org/10.1088/1755-1315/1109/1/012026>
- NOAA. (2023, Januari 20). *What is Tsunami?* NOAA.
- Peraturan Daerah Nomor 3 Tahun 2010 tentang Rencana Tata Ruang Wilayah Kabupaten Pacitan 2009-2028.
- Peraturan Daerah Nomor 7 Tahun 2016 tentang RDTR dan PZ Bagian Wilayah Perkotaan Pacitan Kabupaten Pacitan 2016-2036.
- Peraturan Kepala BNPB Nomor 2 Tahun 2012 tentang Pedoman Umum Pengkajian Risiko Bencana.
- Peraturan Menteri Agraria dan Tata Ruang/Kepala Badan Pertanahan Nasional Nomor 11 Tahun 2021 tentang Tata Cara Penyusunan, Peninjauan Kembali, Revisi, dan Penerbitan Persetujuan Substansi Rencana Tata Ruang Wilayah Provinsi, Kabupaten, Kota dan Rencana Detail Tata Ruang.
- Peraturan Menteri Pekerjaan Umum No. 20/PRT/M/2007 tentang Pedoman Teknik Analisis Aspek Fisik & Lingkungan, Ekonomi, dan Sosial Budaya dalam Penyusunan Rencana Tata Ruang (2007).
- Peraturan Pemerintah Nomor 21 Tahun 2008 tentang Penyelenggaraan Penanggulangan Bencana.
- Peraturan Pemerintah Nomor 21 Tahun 2021 tentang Penyelenggaraan Penataan Ruang.
- Peraturan Pemerintah Nomor 22 Tahun 2007 tentang Pendanaan dan Pengelolaan Bantuan Bencana.
- Peraturan Pemerintah Nomor 23 Tahun 2008 tentang Peran Serta Lembaga Internasional dan Lembaga Asing Nonpemerintah dalam Penanggulangan Bencana.

- Pratiwi, D. (2016). *The Evaluation of Coastal Vegetation Structures and Their Function to Reduce Tsunami Hazard in Pacitan Bay*. Universitas Gadjah Mada.
- Priowidodo, G., & Luik, J. E. (2013). Literasi Mitigasi Bencana Tsunami untuk Masyarakat Pesisir di Kabupaten Pacitan Jawa Timur. *urnal EKOTRANS*, 13(1), 47–61.
- Probosiwi, R., & Sudibyakto. (2013). Manajemen Risiko Tsunami untuk Penataan Ruang di Pesisir Perkotaan Pacitan Jawa Timur. *Jurnal Teknosains*, 2(2), 121–134.
- Rajinder, N. (2010, Desember 12). *On map scale and raster resolution*. <https://www.esri.com/arcgis-blog/products/product/imagery/on-map-scale-and-raster-resolution/>.
- Reid, J. A., & Mooney, W. D. (2022). Tsunami Occurrence 1900–2020: A Global Review, with Examples from Indonesia. *Pure and Applied Geophysics*. <https://doi.org/10.1007/s00024-022-03057-1>
- Sabtaji, A. (2020). Statistik Kejadian Gempa Bumi Tektonik Tiap Provinsi di Wilayah Indonesia Selama 11 Tahun Pengamatan (2009-2019). *BULETIN METEOROLOGI, KLIMATOLOGI, DAN GEOFISIKA*, 1(7), 31–46.
- Sagala, S. A. H., Suroso, D. S. A., Puspitasari, N., Suroso, A. A., & Rizqika, K. A. (2021). Knowledge and implementation gaps in disaster risk reduction and spatial planning: Palu City, Indonesia. *Disaster Prevention and Management: An International Journal*. <https://doi.org/10.1108/DPM-03-2021-0105>
- Sambah, A. B., Tri Djoko, L., & Bayu, R. (2019). Satellite image analysis and GIS approaches for tsunami vulnerability assessment. *IOP Conference Series: Earth and Environmental Science*, 370(1). <https://doi.org/10.1088/1755-1315/370/1/012068>
- Sihombing, T. (2014). Perkembangan Elemen-Elemen Penting Tektonik Asia. *Jurnal Geologi dan Sumberdaya Mineral*, 15(2), 63–68.
- Simmons, D. C., Dauwe, R., Gowland, R., Gyenes, Z., King, A. G., Riedstra, D., & Schneiderbauer, S. (2020). *Understanding Disaster Risk: Risk Assessment Methodologies and Examples*.
- Suharyanto, A., Pujiraharjo, A., Yudono, A., Murakami, K., & Deguchi, C. (2012). Predicting of Tsunami Inundation Area based on Propagation and Runup Numerical Model in Pacitan City. *The Proceedings of 2nd Annual International Conference Syiah Kuala University 2012*, 2(2).
- Sutanta, H., Rajabifard, A., & Bishop, I. D. (2010). *Integrating Spatial Planning and Disaster Risk Reduction at the Local Level in the Context of Spatially Enabled Government*. <http://services.land.vic.gov.au/landchannel/jsp/map/PlanningMapsIntro.jsp>
- Sutikno, S. (2012). Kajian Penentuan Lokasi Shelter untuk Evakuasi Tsunami berdasarkan Analisis Service Area di Kota Pacitan. *Jurnal Sains dan Teknologi*, 11(2), 72–78.
- Syamsidik, & Istiyanto, D. C. (2013). Tsunami Mitigation Measures for Tsunami Prone Small Islands: Lessons Learned from the 2010 Tsunami Around the Mentawai Islands of Indonesia. *Journal of Earthquake and Tsunami*, 07(01).



- Takabatake, T., Fujisawa, K., Esteban, M., & Shibayama, T. (2020). Simulated effectiveness of a car evacuation from a tsunami. *International Journal of Disaster Risk Reduction*, 47. <https://doi.org/10.1016/j.ijdr.2020.101532>
- Triyono, R., Prasetya, T., Daryono, Anugrah, S. D., Sudrajat, A., Setiyono, U., Gunawan, I., Priyobudi, & Yatimantoro, T. (2019). *Katalog Tsunami Indonesia Tahun 416-2017*. Badan Meteorologi Klimatologi dan Geofisika.
- Twigg, John. (2004). *Disaster risk reduction : mitigation and preparedness in development and emergency programming*. Overseas Development Institute.
- Undang-Undang Nomor 24 Tahun 2007 tentang Penanggulangan Bencana.
- Undang-Undang Nomor 26 Tahun 2007 tentang Penataan Ruang.
- UNDRR. (2023). *Capacity*. <https://www.undrr.org/terminology/capacity>
- UNISDR. (2017). *National Disaster Risk Assessment*.
- United Nations. (2004). *Living with Risk Living with Risk A global review of disaster reduction initiatives A global review of disaster reduction initiatives*.
- Wibowo, T. W., Mardiatno, D., & Sunarto. (2017). Pemetaan Risiko Tsunami terhadap Bangunan secara Kuantitatif. *Majalah Geografi Indonesia*, 31(2), 68–78. <https://doi.org/10.22146/mgi.25493>
- Widiyantoro, S., Gunawan, E., Muhari, A., Rawlinson, N., Mori, J., Hanifa, N. R., Susilo, S., Supendi, P., Shiddiqi, H. A., Nugraha, A. D., & Putra, H. E. (2020). Implications for megathrust earthquakes and tsunamis from seismic gaps south of Java Indonesia. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-72142-z>
- Widodo, A., Aditama, F. Y., Rochman, J. P. G. N., Kartikasari, D., Putra, N. M., & Pribadi, S. (2024). Preliminary study of tsunami simulations on megathrust earthquake scenarios in Pacitan Regency, East Java. *IOP Conference Series: Earth and Environmental Science*, 1307(1), 012004. <https://doi.org/10.1088/1755-1315/1307/1/012004>
- Wood, N., Jones, J., Schmidlein, M., Schelling, J., & Frazier, T. (2016). Pedestrian flow-path modeling to support tsunami evacuation and disaster relief planning in the U.S. Pacific Northwest. *International Journal of Disaster Risk Reduction*, 18, 41–55. <https://doi.org/10.1016/j.ijdr.2016.05.010>
- Woodruff, S., Vitro, K. A., & BenDor, T. K. (2018). GIS and Coastal Vulnerability to Climate Change. Dalam *Comprehensive Geographic Information Systems* (hlm. 236–257). Elsevier. <https://doi.org/10.1016/B978-0-12-409548-9.09655-X>
- Yilmaz, E. O., & Kavzoglu, T. (2024). Quality assessment for multi-resolution segmentation and segment-anything model using WORLDVIEW-3 imagery. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, XLVIII-4/W9-2024, 383–390. <https://doi.org/10.5194/isprs-archives-XLVIII-4-W9-2024-383-2024>
- Yosritzal, Kemal, B. M., & Aulia, Y. B. (2018). Demand versus capacity of tsunami shelters in Padang, Indonesia. *International Journal on Advanced Science, Engineering and Information Technology*, 8(5), 1984–1990. <https://doi.org/10.18517/ijaseit.8.5.4184>

- Yosritzal, Putra, H., Kemal, B. M., Mas, E., & Purnawan. (2020). Identification of Factors Influencing the Evacuation Walking Speed in Padang, Indonesia. *Advances in Engineering Research*, 193.
- Yunarto, Y., & Sari, A. M. (2018). Analysis of community tsunami evacuation time: An overview. *IOP Conference Series: Earth and Environmental Science*, 118(1). <https://doi.org/10.1088/1755-1315/118/1/012033>
- Yusup, Y., Tjahjono, G. A., & Sholeh, S. (2023). Impact of tourism gentrification on Megathrust Disaster Risk in Pacitan Regency. *IOP Conference Series: Earth and Environmental Science*, 1190(1). <https://doi.org/10.1088/1755-1315/1190/1/012035>
- Zakina, N., & Pamungkas, A. (2018). Penilaian Integrasi Manajemen Risiko Bencana ke dalam Proses Penyusunan Rencana Tata Ruang Kota Surabaya. *Jurnal Teknik ITS*, 7(2).