DAFTAR PUSTAKA

Ashar, F., Amaratunga, D., & Haigh, R. (2018). Tsunami Evacuation Routes Using Network Analysis: A case study in Padang. Procedia Engineering, 212, 109–116. https://doi.org/10.1016/J.PROENG.2018.01.015

Berryman, K. (2005). Review of Tsunami Hazard and Risk in New Zealand.

Blyenburgh, P. V. (1999). UAV's-current situation and considerations for the way forward. Development and Operation of UAVs for Military and Civil Applications.

BNPB. (2013). Perencanaan Tempat Evakuasi Sementara (TES) Tsunami.

Bonabeau, E. (2002). Agent-Based Modeling: Methods and Techniques for Simulating Human Systems. Proceedings of the National Academy of Sciences of the United States of America, 7280–7287. www.pnas.orgcgidoi10.1073pnas.082080899

Bonilauri, E. M., Harris, A. J. L., Morin, J., Ripepe, M., Mangione, D., Lacanna, G., Ciolli, S., Cusolito, M., & Deguy, P. (2021). Tsunami evacuation times and routes to safe zones: a GIS-based approach to tsunami evacuation planning on the island of Stromboli, Italy. Journal of Applied Volcanology, 10(1), 1–19. https://doi.org/10.1186/S13617-021-00104-9/FIGURES/13

Bryant, E. (2008). Tsunami The Underrated Hazard (Second Edition). In Springer.

Chang, K.-T. (2017). Geographic Information System. In International Encyclopedia of Geography: People, the Earth, Environment and Technology (pp. 1–9). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781118786352.wbieg0152

Cheff, I., Nistor, I., & Palermo, D. (2019). Pedestrian evacuation modelling of a Canadian West Coast community from a near-field Tsunami event. Natural Hazards, 98(1), 229–249. https://doi.org/10.1007/S11069-018-3487-5/FIGURES/9

Dall'Osso, F., & Dominey-Howes, D. (2010). Public assessment of the usefulness of "draft" tsunami evacuation maps from Sydney, Australia -implications for the establishment of formal evacuation plans. Natural Hazards and Earth System Science, 10(8), 1739–1750. https://doi.org/10.5194/nhess-10-1739-2010

Dewi, R. S. (2012). A-Gis Based Approach of an Evacuation Model for Tsunami Risk Reduction. Journal of Integrated Disaster Risk Management, 2(2), 108–139. https://doi.org/10.5595/idrim.2012.0023

Direktorat Bina Sistem Lalu Lintas Angkutan Kota. (1998). Pedoman Perencanaan dan Pengoperasian Fasilitas Parkir. Dirjen Perhubungan Darat. Jakarta.

Faucher, J. E., Dávila, S., & Hernández-Cruz, X. (2020). Modeling pedestrian evacuation for near-field tsunamis fusing ALCD and agent-based approaches: A case study of Rincón, PR. International Journal of Disaster Risk Reduction, 49, 101606. https://doi.org/10.1016/J.IJDRR.2020.1016

FEMA P-646. (2009). Guidelines for Design of Structures for Vertical Evacuation from Tsunamis Third Edition.

Fischer, M. M., & Nijkamp, P. (1993). Geographic Information Systems, Spatial Modelling and Policy Evaluation. Springer-Verlag.

Ganesan, R., Mercilin Raajini, X., Nayyar, A., Sanjeevikumar, P., Hossain, E., & Ertas, A. H. (2020). BOLD: Bio-Inspired Optimized Leader Election for Multiple Drones. Sensor, 20. https://doi.org/10.3390/s20113134

Giordan, D., Hayakawa, Y., Nex, F., Remondino, F., & Tarolli, P. (2018). Review article: The use of remotely piloted aircraft systems (RPASs) for natural hazards monitoring and management. In Natural Hazards and Earth System Sciences (Vol. 18, Issue 4, pp. 1079–1096). Copernicus GmbH. https://doi.org/10.5194/nhess-18-1079-2018

Giordan, D., Manconi, A., Remondino, F., & Nex, F. (2017). Use of unmanned aerial vehicles in monitoring application and management of natural hazards. In Geomatics, Natural Hazards and Risk (Vol. 8, Issue 1, pp. 1–4). Taylor and Francis Ltd. https://doi.org/10.1080/19475705.2017.1315619

Gomez, C., & Purdie, H. (2016). UAV-based Photogrammetry and Geocomputing for Hazards and Disaster Risk Monitoring-A Review. Geoenvironmental Disasters, 3(23). https://doi.org/10.1186/s40677-016-0060-y

Gonçalves, J. A., & Henriques, R. (2015). UAV photogrammetry for topographic monitoring of coastal areas. ISPRS Journal of Photogrammetry and Remote Sensing, 104, 101–111. https://doi.org/10.1016/J.ISPRSJPRS.2015.02.009

González-Riancho, P., Aguirre-Ayerbe, I., Aniel-Quiroga, I., Abad, S., González, M., Larreynaga, J., Gavidia, F., Gutiérrez, O. Q., Álvarez-Gómez, J. A., & Medina, R. (2013). Tsunami evacuation modelling as a tool for risk reduction: Application to the coastal area of El Salvador. *Natural Hazards and Earth System Sciences*, *13*(12), 3249–3270. https://doi.org/10.5194/nhess-13-3249-2013

GTZ-IS, & GITEWS. (2010). Guidebook Planning For Tsunami Evacuation. Indonesia: GTZ IS-GITEWS.

Grumbly, S. M., Frazier, T. G., & Peterson, A. G. (2019). Examining the Impact of Risk Perception on the Accuracy of Anisotropic, Least-Cost Path Distance Approaches for Estimating the Evacuation Potential for Near-Field Tsunamis. Journal of Geovisualization and Spatial Analysis, 3(1), 1–14. https://doi.org/10.1007/S41651-019-0026-1/TABLES/1

Gupta, H. K., & Gahalaut, V. K. (2013). Three Great Tsunamis: Lisbon (1755), Sumatra–Andaman (2004) and Japan (2011). Springer. http://www.springer.com/series/8897

Hall, S., Emmett, C., Cope, A., Harris, R., Setiadi, G. D., Meservy, W., & Berrett, B. (2019). Tsunami knowledge, information sources, and evacuation intentions among tourists in Bali, Indonesia. Journal of Coastal Conservation, 23(3), 505–519. https://doi.org/10.1007/S11852-019-00679-X/TABLES/2

Hara, Y., & Kuwahara, M. (2015). Traffic Monitoring immediately after a major natural disaster as revealed by probe data - A case in Ishinomaki after the Great East Japan Earthquake. *Transportation Research Part A: Policy and Practice*, *75*, 1–15. https://doi.org/10.1016/j.tra.2015.03.002

Hinga, R., & D, B. (2015). Ring of Fire (An Encyclopedia of the Pacific Rim's Earthquakes, Tsunamis, and Volcanoes. ABC-CLIO.

Hulu, M., Baiquni, M., Fandeli, C., & Wirasanti, N. (2019). Community Participation on Tourism Development in Parangtritis Tourism Area, Bantul Regency. E-Journal of Tourism, 6(2), 225–234. https://doi.org/10.24922/EOT.V6I2.4671

InaTEWS (Indonesia Tsunami Early Warning System). (2012). Pedoman Pelayanan Peringatan Dini Tsunami. Pusat Gempa Bumi dan Tsunami Kedeputian Bidang Geofisika-BMKG.Jakarta

Iriani, L. G. (2015). Determining Tsunami Evacuation Building Location And Evacuation Routes Based On Population Dynamic And Human Behaviour In Disaster Evacuation In Pacitan Sub-District Area. Thesis: Universitas Gadjah Mada and University of Twente

Isshiki, M., Asai, M., Eguchi, S., & O-Tani, H. (2016). 3D Tsunami Run-up Simulation and Visualization using Particle Method with Gis-Based Geography Model. Journal of Earthquake and Tsunami, 10(5). https://doi.org/10.1142/S1793431116400200

Ito, E., Kosaka, T., Hatayama, M., Urra, L., Mas, E., & Koshimura, S. (2021). Method to extract difficult-to-evacuate areas by using tsunami evacuation simulation and numerical analysis. International Journal of Disaster Risk Reduction, 64, 102486. https://doi.org/10.1016/J.IJDRR.2021.102486

Kandrot, S., Hayes, S., & Holloway, P. (2021). Applications of Uncrewed Aerial Vehicles (UAV) Technology to Support Integrated Coastal Zone Management and the UN Sustainable Development Goals at the Coast. Estuaries and Coasts, 1–20. https://doi.org/10.1007/S12237-021-01001-5/FIGURES/3

Kelman, I., Spence, R., Palmer, J., Petal, M., & Saito, K. (2008). Tourists and disasters: lessons from the 26 December 2004 tsunamis. J Coast Conserv, 12,105–113. https://doi.org/10.1007/s11852-008-0029-4

Khan, A., Gupta, S., & Gupta, S. K. (2020). Multi-hazard disaster studies: Monitoring, detection, recovery, and management, based on emerging technologies and optimal techniques. International Journal of Disaster Risk Reduction, 47, 101642. https://doi.org/10.1016/J.IJDRR.2020.101642

Khomarudin, M. (2010). Tsunami Risk and Vulnerability: Remote Sensing and GIS Approaches for Surface Roughness Determination, Settlement Mapping and Population Distribution Modeling. Dissertation: Universität München

Kim, K., Kaviari, F., Pant, P., & Yamashita, E. (2022). An agent-based model of short-notice tsunami evacuation in Waikiki, Hawaii. Transportation Research Part D: Transport and Environment, 105, 103239. https://doi.org/10.1016/J.TRD.2022.103239

Kucharczyk, M., & Hugenholtz, C. H. (2021). Remote sensing of natural hazard-related disasters with small drones: Global trends, biases, and research opportunities. Remote Sensing of Environment, 264, 112577. https://doi.org/10.1016/J.RSE.2021.112577

Kusumayudha, S.B. (2005). Hidrogeologi Karst dan Geometri Fraktal di Daerah Gunungsewu. Yogyakarta: Adi Cita.

Kusumayudha, et al (2015). Geomorphologic Model of Gunungsewu Karst, Gunungkidul Regency, Yogyakarta Special Territory, Indonesia: The Role of Lithologic Variation and Geologic Structure. Journal of Geological Resource and Engineering, 3.

Mardiatno, D., et al (2007). Misconception of Run-up Definition and Its Implification to Tsunami Risk Assessment. A Case Study in Pacitan Coastal Area, Indonesia. Indonesian Journal of Geography. 39 (2), 173-188.

Mardiatno, D., Malawani, M. N., & Ma'rifatun Nisaa', R. (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, 2212–4209. https://doi.org/10.1016/j.ijdrr.2020.101523

Marfai, M. A., Cahyadi, A., & Anggraini, D. F. (2013). Tipologi, Dinamika, dan Potensi Bencana Pesisir Kawasan Karst Kabupaten Gunungkidul. Forum Geografi, 27(2), 147-158.

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

Marfai, M. A., Khakim, N., Fatchurohman, H., & Salma, A. D. (2021). Planning tsunami vertical evacuation routes using high-resolution UAV digital elevation model: case study in Drini Coastal Area, Java, Indonesia. Arabian Journal of Geosciences, 14(19). https://doi.org/10.1007/s12517-021-08357-9

Marfai, M. A., Sunarto, Khakim, N., Fatchurohman, H., Cahyadi, A., Wibowo, Y. A., & Rosaji, F. S. C. (2019). Tsunami hazard mapping and loss estimation using geographic information system in Drini Beach, Gunungkidul Coastal Area, Yogyakarta, Indonesia. E3S Web of Conferences, 76, 03010. https://doi.org/10.1051/E3SCONF/20197603010

Marfai, M., Sunarto, Khakim, N., Cahyadi, A., Rosaji, F. S. C., Fatchurohman, H., & Wibowo, A. (2018). Topographic data acquisition in tsunami-prone coastal area using Unmanned Aerial Vehicle (UAV). IOP Conference Series: Earth and Environmental Science, 148. https://doi.org/10.1088/1755-315/148/1/012004

Mas, E., Suppasri, A., Imamura, F., & Koshimura, S. (2012). Agent-based Simulation of the 2011 Great East Japan Earthquake/Tsunami Evacuation: An Integrated Model of Tsunami Inundation and Evacuation. Journal of Natural Disaster Science, 34(1), 41–57. https://doi.org/10.2328/JNDS.34.41

Mauro, M. di, Megawati, K., Cedillos, V., & Tucker, B. (2013). Tsunami risk reduction for densely populated Southeast Asian cities: analysis of vehicular and pedestrian evacuation for the city of Padang, Indonesia, and assessment of interventions. *Nat Hazards*, *68*, 373–404. https://doi.org/10.1007/s11069-013-0632-z

Mori, J., Mooney, W. D., Afnimar, Kurniawan, S., Anaya, A. I., & Widiyantoro, S. (2007). The 17 July 2006 Tsunami Earthquake in West Java, Indonesia. Seismological Research Letters, 78(2), 201–207. https://doi.org/10.1785/GSSRL.78.2.201

Morlok Edward, K. (1991). Pengantar Teknik dan Perencanaan Transportasi. (Terjemahan) Erlangga, Jakarta.

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.IJDRR.2018.12.01

Munadi, K., Nurdin, Y., Dirhamsyah, M., & Muchalil, S. (2012). Multiagent Based Tsunami Evacuation Simulation: A Conceptual Model. The Proceedings of 2nd Annual International Conference Syiah Kuala University, 2(2), 254–259.

Murakami, H., Takimoto, K., & Pomonis, A. (2012). Tsunami Evacuation Process and Human Loss Distribution in the 2011 Great East Japan Earthquake-A Case Study of Natori City, Miyagi Prefecture. *World Conference on Earthquake Engineering*.

Nikolakopoulos, K. G., & Koukouvelas, I. K. (2017). Emergency response to landslide using GNSS measurements and UAV. Earth Resources and Environmental Remote Sensing/GIS Applications VIII, 10428, 374–385. https://doi.org/10.1117/12.2278728

Ouellette, W., & Getinet, W. (2016). Remote sensing for Marine Spatial Planning and Integrated Coastal Areas Management: Achievements, challenges, opportunities and future prospects. Remote Sensing Applications: Society and Environment, 4, 138–157. https://doi.org/10.1016/J.RSASE.2016.07.003

Pajares, G. (2015). Overview and Current Status of Remote Sensing Applications Based on Unmanned Aerial Vehicles (UAVs). Photogrammetric Engineering & Remote Sensing, 81(4), 281–329. https://doi.org/10.14358/PERS.81.4.281

Prothero, D. R. (2011). Catastrophes! The Johns Hopkins University Press.

Pugh, David., & Woodworth, Philip. (2014). Sea-level science : understanding tides, surges, tsunamis and mean sea-level changes. Cambridge University Press.

Putri, R., F. (2011). SAND DUNE CONSERVATION ZONE BASED ON TSUNAMI INUNDATION HAZARD IN PARANGTRITIS COASTAL AREA, BANTUL REGENCY, YOGYAKARTA SPECIAL PROVINCE : Remote Sensing and Geographic Information System A pplication.Tesis: Universitas Gadjah Mada

Qin, X., Motley, M. R., & Marafi, N. A. (2018). Three-dimensional modeling of tsunami forces on coastal communities. https://doi.org/10.1016/j.coastaleng.2018.06.008

Rezaldi, M. Y., Yoganingrum, A., Hanifa, N. R., Kaneda, Y., Kushadiani, S. K., Prasetyadi, A., Nugroho, B., & Riyanto, A. M. (2021). Unmanned aerial vehicle (Uav) and photogrammetric technic for 3d tsunamis safety

modeling in cilacap, indonesia. Applied Sciences (Switzerland), 11(23). https://doi.org/10.3390/app112311310

Rosaji, F. S. C. (2017). Pemanfaatan Teknologi *Unmanned Aerial Vehicle* (UAV) untuk Perencanaan Evakuasi Tsunamidi Kawasan Wisata Pantai Studi Kasus: Pantai Pulang Syawal dan sekitarnya, Kabupaten Gunungkidul. Tesis: Universitas Gadjah Mada.

Samaddar, S., Si, H., Jiang, • Xinyu, Choi, J., & Tatano, H. (2022). How Participatory is Participatory Flood Risk Mapping? Voices from the Flood Prone Dharavi Slum in Mumbai. Int J Disaster Risk Sci, 230–248. https://doi.org/10.1007/s13753-022-00406-5

Satake, K., Okal, E. A., & Borrero, J. C. (2007). Tsunami and its Hazard in the Indian and Pacific Oceans: Introduction. Pure Appl. Geophys., 164, 249–259. https://doi.org/10.1007/s00024-006-0172-5

Schaefer, M., Teeuw, · Richard, Day, · Simon, Zekkos, D., Weber, P., Meredith, T., Cees, ·, & van Westen, J. (2020). Low-cost UAV surveys of hurricane damage in Dominica: automated processing with co-registration of pre-hurricane imagery for change analysis. Natural Hazards, 101, 755–784. https://doi.org/10.1007/s11069-020-03893-1

Schmidtlein, M. C., & Wood, N. J. (2015). Sensitivity of tsunami evacuation modeling to direction and land cover assumptions. *Applied Geography*, *56*, 154–163. https://doi.org/10.1016/j.apgeog.2014.11.014

Strusińska-Correia, A. (2017). Tsunami mitigation in Japan after the 2011 Tōhoku Tsunami. *International Journal of Disaster Risk Reduction*, *22*, 397–411. https://doi.org/10.1016/j.ijdrr.2017.02.001

Takabatake, T., Shibayama, T., Esteban, M., Ishii, H., & Hamano, G. (2017). Simulated tsunami evacuation behavior of local residents and visitors in Kamakura, Japan. International Journal of Disaster Risk Reduction, 23, 1–14. https://doi.org/10.1016/J.IJDRR.2017.04.003

Tjia, H. D. (2013). Morphostructural Development of Gunungsewu Karst, Jawa Island Perkembangan Morfostruktur Kars Gunungsewu di Pulau Jawa. In Indonesian Journal of Geology (Vol. 8, Issue 2).

Trindade, A., Teves-Costa, P., & Catita, C. (2018). A GIS-based analysis of constraints on pedestrian tsunami evacuation routes: Cascais case study (Portugal). Natural Hazards, 93(1), 169–185. https://doi.org/10.1007/S11069-017-3152-4/FIGURES/8

Valavanis, K. P., & Vachtsevanos, G. J. (2015). Handbook of unmanned aerial vehicles. In Handbook of Unmanned Aerial Vehicles. Springer Netherlands. https://doi.org/10.1007/978-90-481-9707-1

Wang, H., Mostafizi, A., Cramer, L. A., Cox, D., & Park, H. (2016). An agent-based model of a multimodal near-field tsunami evacuation: Decision-making and life safety. Transportation Research Part C: Emerging Technologies, 64, 86–100. https://doi.org/10.1016/j.trc.2015.11.010

Wang, Z., & Jia, G. (2021). A novel agent-based model for tsunami evacuation simulation and risk assessment. Natural Hazards, 105(2), 2045–2071.https://doi.org/10.1007/S11069-020-04389-8/FIGURES/9

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(15274). https://doi.org/10.1038/s41598-020-72142-z

Wood, N. J., & Schmidtlein, M. C. (2012). Anisotropic path modeling to assess pedestrian-evacuation potential from Cascadia-related tsunamis in the US Pacific Northwest. Natural Hazards, 62(2), 275–300. https://doi.org/10.1007/S11069-011-9994-2/TABLES/3

Wood, N., Jones, J., Schelling, J., & Schmidtlein, M. (2014). Tsunami vertical-evacuation planning in the U.S. Pacific Northwest as a geospatial, multi-criteria decision problem. International Journal of Disaster Risk Reduction, 9, 68–83. https://doi.org/10.1016/J.IJDRR.2014.04.009