



DAFTAR PUSTAKA

- Abelshausen, B., Vanwing, T., & Jacquet, W. (2015). Participatory integrated coastal zone management in Vietnam: Theory versus practice case study: Thua Thien Hue province. *Journal of Marine and Island Cultures*, 4(1), 42–53. <https://doi.org/10.1016/J.IMIC.2015.06.004>
- Ablain, M., Cazenave, A., Larnicol, G., Balmaseda, M., Cipollini, P., Faugère, Y., Fernandes, M. J., Henry, O., Johannessen, J. A., Knudsen, P., Andersen, O., Legeais, J., Meyssignac, B., Picot, N., Roca, M., Rudenko, S., Scharffenberg, M. G., Stammer, D., Timms, G., & Benveniste, J. (2015). Improved sea level record over the satellite altimetry era (1993–2010) from the Climate Change Initiative project. *Ocean Science*, 11(1), 67–82. <https://doi.org/10.5194/OS-11-67-2015>
- Afifah, I. N., Latief, H., Putri, M. R., Hanifah, F., Ismoyo, D. O., & Fadli, M. (2017). Kajian Bahaya Akibat Kenaikan Muka Air Laut di Pesisir Jakarta. *Pertemuan Ilmiah Nasional Tahunan XIV ISOI 2017*, 331–341.
- Ahmadi, A. (2004). *Kependudukan dan Berbagai Aspeknya*. Liberty.
- Alamsah, M., & Hidayah, U. (2023). Evaluasi Penggunaan Lahan Di Kawasan Sempadan Pantai Tanjung Uban Kecamatan Bintan Utara. *Plano Madani : Jurnal Perencanaan Wilayah Dan Kota*, 12(1), 75–84. <https://doi.org/10.24252/JPM.V12I1.41237>
- Alwi, M., & Mutaqin, B. W. (2022). Geospatial mapping of tsunami susceptibility in Parangtritis coastal area of Yogyakarta, Indonesia. *Arabian Journal of Geosciences* 2022 15:15, 15(15), 1–15. <https://doi.org/10.1007/S12517-022-10608-2>
- Amin, M. (2024). Kajian perbandingan mitigasi kerentanan fisik, ekonomi, sosial dan lingkungan akibat banjir rob di Demak. *Journal of Economic Resilience and Sustainable Development*, 1(1), 47–63. <https://doi.org/10.61511/ERSUD.V1I1.2024.640>
- Andronicus, Yulianda, F., & Fahrudin, A. (2016). Kajian Keberlanjutan Pengelolaan Ekowisata Berbasis Daerah Perlindungan Laut (Dpl) Di Psisir Desa Bahoi, Minahasa Utara, Sulawesi Utara. *JEMIS (Journal of Engineering & Management in Industrial System)*, 4(1), 1–10. <https://doi.org/10.21776/UB.JEMIS.2016.004.01.1>
- Angkotasan, A. M., Nurjaya, W., & Natih, N. M. N. (2017). Analisis Perubahan Garis Pantai Di Pantai Barat Daya Pulau Ternate, Provinsi Maluku Utara. *Jurnal Teknologi Perikanan Dan Kelautan*, 3(2), 11–22. <https://doi.org/10.24319/jtpk.3.11-22>
- Arif, M., Hendri, A., Suprayogi, I., Jurusan Teknik Sipil, M., Teknik, F., & Riau, U. (2019). Analisis Pasang Surut Di Pantai Dumai Menggunakan Metode Least Square 15 Piantan. *Jurnal Online Mahasiswa (JOM) Bidang Teknik Dan*



Sains, 6(0), 1–9.
<https://jom.unri.ac.id/index.php/JOMFTEKNIK/article/view/23274>

Ariffin, E. H., Mathew, M. J., Roslee, A., Ismailluddin, A., Yun, L. S., Putra, A. B., Yusof, K. M. K. K., Menhat, M., Ismail, I., Shamsul, H. A., Menier, D., Ghazali, N. H. M., & Lee, L. H. (2023). A multi-hazards coastal vulnerability index of the east coast of Peninsular Malaysia. *International Journal of Disaster Risk Reduction*, 84, 103484. <https://doi.org/10.1016/J.IJDRR.2022.103484>

Arikunto. (2016). *Prosedur Penelitian: suatu Pendekatan Praktik*. Rineka Cipta.

Arkema, K. K., Guannel, G., Verutes, G., Wood, S. A., Guerry, A., Ruckelshaus, M., Kareiva, P., Lacayo, M., & Silver, J. M. (2013). Coastal habitats shield people and property from sea-level rise and storms. *Nature Climate Change* 2013 3:10, 3(10), 913–918. <https://doi.org/10.1038/nclimate1944>

Armenio, E., De Serio, F., & Mossa, M. (2017). Analysis of data characterizing tide and current fluxes in coastal basins. *Hydrology and Earth System Sciences*, 21(7), 3441–3454. <https://doi.org/10.5194/HESS-21-3441-2017>

Army, P. F., & Ozali, I. (2022). Strategi Meningkatkan Jumlah Kunjungan Wisatawan Di Kawasan Bintan Resorts Lagoi Kepulauan Riau Di Masa Pandemi Covid-19. *NUSANTARA : Jurnal Ilmu Pengetahuan Sosial*, 9(2), 377–387. <https://doi.org/10.31604/JIPS.V9I1.2022.377-387>

Azuga, N. A. (2021). Kajian Kerentanan Kawasan Pesisir Terhadap Bencana Kenaikan Muka Air Laut (Sea Level Rise) Di Indonesia. *Jurnal Riset Kelautan Tropis (Journal of Tropical Marine Research) (J-Tropimar)*, 3(2), 65–76. <https://doi.org/10.30649/JRKT.V3I2.41>

Bird, E. C. F. (2008). *Coastal Geomorphology: An Introduction, 2nd Edition*. John Wiley & Sons.

Boateng, I. (2012). GIS assessment of coastal vulnerability to climate change and coastal adaption planning in Vietnam. *Journal of Coastal Conservation*, 16(1), 25–36. <https://doi.org/10.1007/S11852-011-0165-0/METRICS>

BPBD. (2022). *Kajian Risiko Bencana Kabupaten BIntan*. BPBD.

Charuka, B., Angnuureng, D. B., Brempong, E. K., Agblorti, S. K. M., & Antwi Agyakwa, K. T. (2023). Assessment of the integrated coastal vulnerability index of Ghana toward future coastal infrastructure investment plans. *Ocean & Coastal Management*, 244, 106804. <https://doi.org/10.1016/J.OCECOAMAN.2023.106804>

Christanto, J. (2010). *Pengantar Pengelolan Berkelanjutan Sumberdaya Pesisir dan Pulau Pulau Kecil*. Deepublish.

Church, J. A., & White, N. J. (2011). Sea-Level Rise from the Late 19th to the Early 21st Century. *Surveys in Geophysics*, 32(4–5), 585–602. <https://doi.org/10.1007/S10712-011-9119-1/FIGURES/8>



- Coppola, D. P. (2015). Introduction to International Disaster Management: Third Edition. *Introduction to International Disaster Management: Third Edition*, 1–733. <https://doi.org/10.1016/C2014-0-00128-1>
- Danial, M. (2008). *Rekayasa Pantai. Alfabeta.*
- Davis Jr, R. A., & FitzGerald, D. (2004). *Beach and Coast*. Blackwell Publishing company.
- De Serio, F., Armenio, E., Mossa, M., & Petrillo, A. F. (2018). How to Define Priorities in Coastal Vulnerability Assessment. *Geosciences 2018, Vol. 8, Page 415*, 8(11), 415. <https://doi.org/10.3390/GEOSCIENCES8110415>
- Efendy, M. (2009). Pengelolaan Wilayah Pesisir Secara Terpadu: Solusi Pemanfaatan Ruang, Pemanfaatan Sumberdaya Dan Pemanfaatan Kapasitas Asimilasi Wilayah Pesisir Yang Optimal Dan Berkelaanjutan. *Jurnal Kelautan: Indonesian Journal of Marine Science and Technology*, 2(1), 81–86. <https://doi.org/10.21107/jk.v2i1.906>
- Eurostat. (2013). *Methodological manual for tourism statistics* (Version 3.1). Publications Office of the European Union.
- Falatehan, AA. F. (2016). *Analytical Hierarchy Process (AHP): Teknik Pengambilan Keputusan untuk Pembangunan Daerah*. Indomedia Pustaka.
- Faza, L. H., & Kurniadi, Y. N. (2016). Desain Bangunan Pelindung Pantai Sebagai Penanggulangan Abrasi Di Kawasan Pantai Ujung Jabung Provinsi Jambi. *RekaRacana: Jurnal Teknil Sipil*, 2(2), 58. <https://doi.org/10.26760/REKARACANA.V2I2.47>
- Fitriani, J., & Muliadi, M. (2021). Kondisi Arus Musim Barat di Perairan Pantai Kijing Kabupaten Mempawah Kalimantan Barat. *Jurnal Laut Khatulistiwa*, 4(1), 40–49. <https://doi.org/10.26418/LKUNTAN.V4I1.42967>
- Gautam, V. K., Gaurav, P. K., Murugan, P., & Annadurai, M. (2015). Assessment of Surface Water Dynamicsin Bangalore Using WRI, NDWI, MNDWI, Supervised Classification and K-T Transformation. *Aquatic Procedia*, 4, 739–746. <https://doi.org/10.1016/J.AQPRO.2015.02.095>
- Gracia, A., Rangel-Buitrago, N., Oakley, J. A., & Williams, A. T. (2018). Use of ecosystems in coastal erosion management. *Ocean & Coastal Management*, 156, 277–289. <https://doi.org/10.1016/J.OCECOAMAN.2017.07.009>
- Hakim, A. R., Sutikno, S., & Fauzi, M. (2016). Analisis Laju Abrasi Pantai Pulau Rangsang Di Kabupaten Kepulauan Meranti Dengan Menggunakan Data Satelit. *Jurnal Sains Dan Teknologi*, 13(2), 57–62. <https://doi.org/10.31258/JST.V13.N2.P>
- Hammar-Plose, E. S., Pendleton, E. A., Thieler, E. R., & Williams, J. (2003). *Coastal Vulnerability Assessment of Cape Cod National Seashore (CACO) to Sea-Level Rise*.
- Hamuna, B., Sari, A. N., & Alianto, A. (2018). Kajian Kerentanan Wilayah Pesisir Ditinjau dari Geomorfologi dan Elevasi Pesisir Kota dan Kabupaten Jayapura,



Provinsi Papua. *Jurnal Wilayah Dan Lingkungan*, 6(1), 1–14.
<https://doi.org/10.14710/jwl.6.1.1-14>

Handiani, D. N., Darmawan, S., Heriati, A., & Aditya, Y. D. (2019). Kajian Kerentanan Pesisir Terhadap Kenaikan Muka Air Laut di Kabupaten Subang-Jawa Barat. *Jurnal Kelautan Nasional*, 14(3), 145–154.
<https://doi.org/10.15578/JKN.V14I3.7583>

Handoko, E. Y., Yuwono, & Ariani, R. (2020). Analisis Kenaikan Muka Air Laut Indonesia Tahun 1993-2018 Menggunakan Data Altimetri. *Geoid*, 15(1), 58–64. <https://doi.org/10.12962/J24423998.V15I1.3958>

Hastuti, A. W., Nagai, M., & Suniada, K. I. (2022). Coastal Vulnerability Assessment of Bali Province, Indonesia Using Remote Sensing and GIS Approaches. *Remote Sensing* 2022, Vol. 14, Page 4409, 14(17), 4409. <https://doi.org/10.3390/RS14174409>

Helmy Ariffin, E., Syakir Zufayri Zulfakar, M., Shahida Redzuan, N., Joseph Mathew, M., Fadzil Akhir, M., Bakhiah Baharim, N., Aslinda Awang, N., & Aieni Mokhtar, N. (2020). Evaluating The Effects Of Beach Nourishment On Littoral Morphodynamics At Kuala Nerus, Terengganu (Malaysia). *Penerbit UMT Journal of Sustainability Science and Management*, 15, 29–42. <https://doi.org/10.46754/jssm.2020.07.005>

Hidayah, Z., Ilhami, S. A. A., As-Syakur, A., Wiyanto, D. B., & Wirayuhanto, H. (2023). Pemodelan Spasial Genangan Akibat Kenaikan Muka Air Laut di Pesisir Selatan Kabupaten Tulungagung Jawa Timur. *Jurnal Kelautan Nasional*, 18(1), 1–12. <https://doi.org/10.15578/JKN.V18I1.10796>

husain, firman, Paroka, D., & Rahman, S. (2021). Penggunaan Pemecah Gelombang Terendam Untuk Mengurangi Abrasi Di Pulau Lamputang. *Jurnal Pengabdian Masyarakat Teknik*, 3(2), 65–70. <https://doi.org/10.24853/JPMT.3.2.65-70>

Imran, Z., Sugiarto, S. W., & Muhammad, A. N. (2020). Coastal vulnerability index aftermath tsunami in Palu Bay, Indonesia. *IOP Conference Series: Earth and Environmental Science*, 420(1), 012014. <https://doi.org/10.1088/1755-1315/420/1/012014>

IPCC. (2014). *Climate Change 2014 Impacts, Adaptation, and Vulnerability* (C. B. Field, V. R. Barros, D. J. Dokken, K. J. Mach, & M. D. Mastrandrea, Eds.). Cambridge University Press. <https://doi.org/10.1017/CBO9781107415379>

IPCC. (2023). : *Summary for Policymakers*. In: *Climate Change 2023: Synthesis Report*.

Isdianto, A., Adibah, F., Haykal, M. F., Irsyad, M. J., Asyari, I. M., & Supriyadi, S. (2022). Indeks Kerentanan Pesisir Ditinjau Dari Geomorfologi, Elevasi, Dan Ancaman Gelombang Untuk Mewujudkan Ketahanan Ekosistem Pesisir. *Jukung (Jurnal Teknik Lingkungan)*, 8(2), 69–80. <https://doi.org/10.20527/JUKUNG.V8I2.14912>



- Ismail, I., Husain, M. L., Abdullah, W. S. W., & Zakaria, R. (2022). Modelling of Coastal Vulnerability Index Along the East Coast of Peninsular Malaysia due to Sea Level Rise Impact. *IOP Conference Series: Earth and Environmental Science*, 1103(1), 012011. <https://doi.org/10.1088/1755-1315/1103/1/012011>
- Istiqomah, F., Sasmito, B., & Amaroohman, F. J. (2016). Pemantauan Perubahan Garis Pantai Menggunakan Aplikasi Digital Shoreline Anaysis System (Dsas) Studi Kasus : Pesisir Kabupaten Demak. *Jurnal Geodesi Undip*, 5(1), 78–89. <https://doi.org/10.14710/JGUNDIP.2016.10559>
- Isvari, M. Y., & Anggraini, K. (2018). DEMNAS: Model Digital Ketinggian Nasional Untuk Aplikasi Kepesisiran. *OSEANA*, 43(4). <https://doi.org/10.14203/OSEANA.2018.VOL.43NO.4.2>
- Jewlaika, Lady, Mubarak, M., & Warningsih, T. (2022). Kerentanan Wilayah Pesisir Berdasarkan Parameter Fisik Dan Sosial Ekonomi Di Kelurahan Pelintung Kota Dumai. *Jurnal Ilmu Lingkungan*, 16(2), 196–206. <https://doi.org/10.31258/JIL.16.2.P.196-206>
- Jia, K., Liang, S., Zhang, N., Wei, X., Gu, X., Zhao, X., Yao, Y., & Xie, X. (2014). Land cover classification of finer resolution remote sensing data integrating temporal features from time series coarser resolution data. *ISPRS Journal of Photogrammetry and Remote Sensing*, 93, 49–55. <https://doi.org/10.1016/J.ISPRSJPRS.2014.04.004>
- Joesidawati, M. I. (2016). Penilaian Kerentanan Pantai Di Wilayah Pesisir Kabupaten Tuban Terhadap Ancaman Kerusakan. *Jurnal Kelautan: Indonesian Journal of Marine Science and Technology*, 9(2), 188–198. <https://doi.org/10.21107/jk.v9i2.1667>
- Junus, N., Hartono, H., & Sukwardjono, S. (2016). Penginderaan Jauh Dan Sistem Informasi Geografis Untuk Monitoring Perkembangan Morfologi Delta Sungai Jeneberang Menggunakan Citra Landsat Multi Temporal. *Majalah Geografi Indonesia*, 23(1), 40–56. <https://jurnal.ugm.ac.id/mgi/article/view/13326>
- Khairunnisa, A., Trisutomo, S., & Ekawati, S. A. (2019). Strategi Adaptasi Terhadap Dampak Perubahan Iklim di Pesisir Kota Makassar. *Jurnal Wilayah & Kota Maritim (Journal of Regional and Maritime City Studies)*, 7, 92711. <https://doi.org/10.20956/JWKM.V7I0.1352>
- Kirwan, M. L., Guntenspergen, G. R., D'Alpaos, A., Morris, J. T., Mudd, S. M., & Temmerman, S. (2010). Limits on the adaptability of coastal marshes to rising sea level. *Volume* 37, *Issue* 23, 37(23). <https://doi.org/10.1029/2010GL045489>
- Koroglu, A., Ranasinghe, R., Jiménez, J. A., & Dastgheib, A. (2019). Comparison of Coastal Vulnerability Index applications for Barcelona Province. *Ocean & Coastal Management*, 178, 104799. <https://doi.org/10.1016/J.OCECOAMAN.2019.05.001>



- Kurniawan, R., Habibie, M. N., & Permana, D. S. (2012). Kajian Daerah Rawan Gelombang Tinggi Di Perairan Indonesia. *Jurnal Meteorologi Dan Geofisika*, 13(3). <https://doi.org/10.31172/JMG.V13I3.135>
- Kurniawati, N., Umar, I., & Gampu, S. (2024). Arahan Pengembangan Kawasan Permukiman dan Kesesuaian Lahan Kecamatan Marisa Kabupaten Pohuwato: *Jurnal Kolaboratif Sains*, 7(7), 2767–2775. <https://doi.org/10.56338/JKS.V7I8.5940>
- Kusrini, K., Suharyadi, S., & Hardoyo, S. R. (2011). Perubahan Penggunaan Lahan dan Faktor yang Mempengaruhinya di Kecamatan Gunungpati Kota Semarang. *MGI*, 25(1), 25–40. <https://doi.org/10.22146/MGI.13358>
- Kusumaningrat, M. D., Subiyanto, S., & Yuwono, B. D. (2017). Analisis Perubahan Penggunaan Dan Pemanfaatan Lahan Terhadap Rencana Tata Ruang Wilayah Tahun 2009 Dan 2017 (Studi Kasus : Kabupaten Boyolali). *Jurnal Geodesi Undip*, 6(4), 443–452. <https://doi.org/10.14710/JGUNDIP.2017.18175>
- Lazarus, E. D. (2017). Toward a Global Classification of Coastal Anthromes. *Land 2017, Vol. 6, Page 13*, 6(1), 13. <https://doi.org/10.3390/LAND6010013>
- Lillesand, T. M., Kiefer, R. W., & Chipman, J. W. (1994). *Remote Sensing and Image Interpretation*. John Wiley & Sons.
- Limantara, Y., Sudarsono, I. B., & Sasmito, B. (2013). Analisis Sea Level Rise Menggunakan Data Satelit Altimetri Jason-2 Periode 2008-1012. *Jurnal Geodesi Undip*, 2(4). <https://doi.org/10.14710/JGUNDIP.2013.3703>
- Lins-de-Barros, F. M. (2017). Integrated coastal vulnerability assessment: A methodology for coastal cities management integrating socioeconomic, physical and environmental dimensions - Case study of Região dos Lagos, Rio de Janeiro, Brazil. *Ocean & Coastal Management*, 149, 1–11. <https://doi.org/10.1016/J.OCECOAMAN.2017.09.007>
- Maanan, M., Maanan, M., Rueff, H., Adouk, N., Zourarah, B., & Rhinane, H. (2018). Assess the human and environmental vulnerability for coastal hazard by using a multi-criteria decision analysis. *Human and Ecological Risk Assessment: An International Journal*, 24(6), 1642–1658. <https://doi.org/10.1080/10807039.2017.1421452>
- Mahapatra, M., Ramakrishnan, R., & Rajawat, A. S. (2015). Coastal vulnerability assessment using analytical hierarchical process for South Gujarat coast, India. *Natural Hazards*, 76(1), 139–159. <https://doi.org/10.1007/S11069-014-1491-Y/TABLES/12>
- Makmun, M. D. M., Muryani, C., & Wijayanti, P. (2021). The tourism impact on the social economic life of community in Ngargoyoso Sub-district, Karanganyar Regency. *IOP Conference Series: Earth and Environmental Science*, 683(1), 012114. <https://doi.org/10.1088/1755-1315/683/1/012114>
- Mani Murali, R., Ankita, M., Amrita, S., & Vethamony, P. (2013). Coastal vulnerability assessment of Puducherry coast, India, using the analytical



- hierarchical process. *Natural Hazards and Earth System Sciences*, 13(12), 3291–3311. <https://doi.org/10.5194/nhess-13-3291-2013>
- Mantra, I. B. (2007). *Demografi Umum*. Pustaka Pelajar Offset.
- Marfai, M. A. (2014). *Banjir Pesisir: Dinamika Pesisir Semarang*. Gadjah Mada University Press.
- Marfai, M. A., Mardiatno, D., Cahyadi, A., Nucifera, F., & Prihatno, H. (2017). Pemodelan Spasial Bahaya Banjir Rob Berdasarkan Skenario Perubahan Iklim dan Dampaknya di Pesisir Pekalongan. *Jurnal Bumi Lestari*, 13(2)(December 2018), 244–256. <https://doi.org/10.31227/OSF.IO/WZTER>
- Marwasta, D., & Priyono, K. D. (2016). Analisis Karakteristik Permukiman Desa-Desa Pesisir di Kabupaten Kulonprogo. *Forum Geografi*, 21(1). <https://doi.org/10.23917/FORGEO.V21I1.1819>
- Meddah, R. Y., Ghodbani, T., Senouci, R., Rabehi, W., Duarte, L., & Teodoro, A. C. (2023). Estimation of the Coastal Vulnerability Index Using Multi-Criteria Decision Making: The Coastal Social-Ecological System of Rachgoun, Western Algeria. *Sustainability* 2023, Vol. 15, Page 12838, 15(17), 12838. <https://doi.org/10.3390/SU151712838>
- Miswanto, S. (2018). Dampak Pembangunan Industri Pariwisata Terhadap Alih Fungsi Lahan (Studi Tentang Kehidupan Sosial Budaya Masyarakat Desa Teluk Bakau, Kecamatan Gunung Kijang, Kabupaten Bintan, Kepulauan Riau). *Jurnal Nasional Pariwisata*, 10(1), 14. <https://doi.org/10.22146/JNP.59463>
- Mohanty, B., Sarkar, R., & Saha, S. (2023). Preparing coastal erosion vulnerability index applying deep learning techniques in Odisha state of India. *International Journal of Disaster Risk Reduction*, 96, 103986. <https://doi.org/10.1016/J.IJDRR.2023.103986>
- Munthafa, A. E., & Mubarok, H. (2017). Penerapan Metode Analytical Hierarchy Process Dalam Sistem Pendukung Keputusan Penentuan Mahasiswa Berprestasi. *Jurnal Siliwangi Seri Sains Dan Teknologi*, 3(2). <https://doi.org/10.37058/JSSAINSTEK.V3I2.355>
- Murali, R. M., Ankita, M., Amrita, S., & Vethamony, P. (2013). Coastal vulnerability assessment of Puducherry coast, India, using the analytical hierarchical process. *Natural Hazards and Earth System Sciences*, 13(12), 3291–3311. <https://doi.org/10.5194/nhess-13-3291-2013>
- Mutaqin, B. W. (2017). Shoreline changes analysis in Kuwaru coastal area, Yogyakarta, Indonesia: an application of the Digital Shoreline Analysis System (DSAS). *International Journal of Sustainable Development and Planning*, 12(7), 1203–1214. <https://doi.org/10.2495/SDP-V12-N7-1203-1214>
- Mutaqin, B. W., Isnain, M. N., Marfai, M. A., Fatchurohman, H., Quesada-Román, A., & Khakhim, N. (2023). Assessing the accuracy of open-source digital elevation models for the geomorphological analysis of very small islands of



- Indonesia. *Applied Geomatics*, 15(4), 957–974. <https://doi.org/10.1007/S12518-023-00533-8/TABLES/5>
- Mutaqin, B. W., & Ningsih, R. L. (2023). Tidal Characteristics in Southern Waters of Java - Indonesia. *JURNAL GEOGRAFI*, 15(2), 154–164. <https://doi.org/10.24114/JG.V15I2.45017>
- Nadya, & Salim, A. (2023). Pengaruh Sea Level Rise di Wilayah Perkotaan Indonesia. *Riset Sains Dan Teknologi Kelautan*, 6(1), 52–55. <https://doi.org/10.62012/SENSISTEK.V6I1.24248>
- National Committee on Soil and Terrain. (2009). *Australian Soil and Land Survey Field Handbook third edition The*. CSIRO Publishing.
- Noor, N. M., & Abdul Maulud, K. N. (2022). Coastal Vulnerability: A Brief Review on Integrated Assessment in Southeast Asia. *Journal of Marine Science and Engineering*, 10(5), 595. <https://doi.org/10.3390/jmse10050595>
- Numberi, F. (2009). *Perubahan Iklim: Implikasinya terhadap Kehidupan di Laut, Pesisir dan Pualu-Pulau Kecil*. Citrakreasi Indonesia.
- Oglesby, C. H. (1999). *Teknik Jalan Raya* (Vol. 1). Gramedia.
- Oktaviani, L., Rahmawati, A., Muta, & Khalifa, A. (2023). Pemetaan Kerentanan Wilayah Pesisir Terhadap Kenaikan Muka Air Laut Di Kabupaten Lebak Banten. *Jurnal Ilmu Dan Teknologi Kelautan Tropis*, 15(1), 49–63. <https://doi.org/10.29244/JITKT.V15I1.43870>
- Pamungkas, A. (2018). Karakteristik Parameter Oseanografi (Pasang-Surut, Arus, dan Gelombang) di Perairan Utara dan Selatan Pulau Bangka. *Buletin Oseanografi Marina*, 7(1), 51–58. <https://doi.org/10.14710/BULOMA.V7I1.19042>
- Pamungkas, R. J., Diansyah, G., & Ulqodry, T. Z. (2021). Pemetaan Kerentanan Pesisir Menggunakan Metode Coastal Vulnerability Index (CVI) Di Pesisir Pantai Kalianda, Kabupaten Lampung Selatan. *Marlin : Marine and Fisheries Science Technology Journal*, 2(1), 1–9. <https://doi.org/10.15578/MARLIN.V2.I1.2021.1-9>
- Paola, G. Di, Iglesias, J., Rodríguez, G., Benassai, G., Aucelli, P., & Pappone, G. (2011). Estimating Coastal Vulnerability in a Meso-Tidal Beach by Means of Quantitative and Semi-Quantitative Methodologies. *Https://Doi.Org/10.2112/SI61-001.30*, 2011(10061), 303–308. <https://doi.org/10.2112/SI61-001.30>
- Pariwono, J. I. (1989). *Gaya Penggerak Pasang Surut*. Pusat Penelitian dan Pengembangan Oseanologi (P3O) LIPI.
- Pasaribu, R. P., Kabul, P. A., Waluyo, & Devi, A. F. (2022). Pemetaan Tingkat Kerentanan Pesisir Dengan Metode CVI (Coastal Vulnerability Index) Di Kabupaten Indramayu. *Maspuri Journal : Marine Science Research*, 14(2), 133–145. <https://doi.org/10.56064/MASPARI.V14I2.19007>



- Pendleton, E. A., Thieler, E. R., & Williams, S. J. (2005). Coastal vulnerability assessment of War in the Pacific National Historical Park to sea-level rise. In *Open-File Report*. <https://doi.org/10.3133/OFR20051056>
- Poerbandono, & Djunarsjah. (2005). *Survey Hidrograf*. Refika Aditama.
- Pond, S., & Pickard, G. L. (1983). *Introductory Dynamical Oceanography* (2nd ed.). Pergamon Press.
- Prajnawrdhi, T. A., Karuppannan, S., & Sivam, A. (2015). Preserving Cultural Heritage of Denpasar: Local Community Perspectives. *Procedia Environmental Sciences*, 28, 557–566. <https://doi.org/10.1016/J.PROENV.2015.07.066>
- Pramanik, M. K., Biswas, S. S., Mondal, B., & Pal, R. (2016). Coastal vulnerability assessment of the predicted sea level rise in the coastal zone of Krishna-Godavari delta region, Andhra Pradesh, east coast of India. *Environment, Development and Sustainability*, 18(6), 1635–1655. <https://doi.org/10.1007/S10668-015-9708-0/FIGURES/9>
- Pramono, G. H. (2008). Akurasi Metode IDW dan Kriging untuk Interpolasi Sebaran Sedimen Tersuspensi. *Forum Geografi*, 22(1), 97–110. <https://doi.org/10.23917/FORGEO.V22I1.4929>
- Prathanazal, N. M., Sasmito, B., & Sabri, L. M. (2020). Analisis Kerentanan Daerah Pesisir Kabupaten Jepara Menggunakan Coastal Vulnerability Index (CVI). *Jurnal Geodesi Undip*, 10(1), 115–123. <https://doi.org/10.14710/JGUNDIP.2021.29631>
- Primasti, T. P. G., Hariyadi, H., Rochaddi, B., Widada, S., & widiaratih, rikha. (2021). Pemantauan Kerentanan Fisik di Pesisir Kabupaten Demak (Studi Kasus Perubahan Garis Pantai). *Indonesian Journal of Oceanography*, 3(1), 44–54. <https://doi.org/10.14710/IJOCE.V3I1.9997>
- Priyoadi, B. R., & Setiawan, B. I. (2020). Pemetaan Topografi Calon Lokasi Embung di Kampus IPB Darmaga, Bogor. *Jurnal Teknik Sipil Dan Lingkungan*, 5(1), 51–58. <https://doi.org/10.29244/jsil.5.1.51-58>
- Purwanto, E. H., & Lukianow, R. (2019). Parameter teknis dalam usulan standar pengolahan penginderaan jauh: metode klasifikasi terbimbing. *Jurnal Standardisasi*, 21(1), 67–78. <https://doi.org/10.31153/JS.V21I1.737>
- Putra, A. R., & Silfiana, S. (2020). Resiko Kerentanan Masyarakat Perkotaan Terhadap Bahaya Banjir di Kelurahan Margagiri, Kecamatan Bojonegara, Kabupaten Serang. *Jurnal Kebijakan Pembangunan Daerah*, 4(1), 62–76. <https://doi.org/10.37950/JKPD.V4I1.92>
- Rahmawan, G. A., Dhiauddin, R., Wisha, U. J., Gemilang, W. A., Syetiawan, A., Ambarwulan, W., & Rahadiati, A. (2022). GIS-Based Assessment Of Coastal Vulnerability In The JATABEKJatabek (Jakarta, Tangerang, And Bekasi) Region, Indonesia. *Geographia Technica*, 17(2), 84–96. https://doi.org/10.21163/GT_2022.172.08



- Ramadhan, C., Ruslanjari, D., Puspitasari, D., Indasari, G. D., & Sandro, N. (2022). Coastal Vulnerability Assessment for Community Resilience on Abrasion: Case of Bugel Coast, Kulon Progo Regency, Indonesia. *ASEAN Journal on Science and Technology for Development*, 39(1), 13–22. <https://doi.org/10.29037/AJSTD.715>
- Ramdhani, M. (2021). Dampak dan Adaptasi Kerentanan Pesisir di Pantai Kota Padang, Provinsi Sumatera Barat. *Indonesian Journal of Earth Sciences*, 1(1), 1–9. <https://doi.org/10.52562/INJOES.V1I1.15>
- Ramnalis, P., Batzakis, D.-V., & Karymbalis, E. (2023). Applying two methodologies of an integrated coastal vulnerability index (ICVI) to future sea-level rise: Case study: southern coast of the Gulf of Corinth, Greece. *Geoadria*, 28(1), 7–24. <https://doi.org/10.15291/GEOADRIA.4234>
- Randi. (2018). *Teori Penelitian Terdahulu*. Erlangga.
- Refki, A., Asmawi, S., & Ahsin Rifa, M. (2023). Analisis Indeks Kerentanan Pantai Takisung Kabupaten Tanah Laut Provinsi Kalimantan Selatan. *EnviroScientiae*, 19(3), 121–127. <https://doi.org/10.20527/es.v19i3.17276>
- Reppi, E. I., Warouw, F., & Sembel, A. (2021). Analisis Resiko Bencana Longsor di Kota Bitung. *SPASIAL*, 8(2), 246–254. <https://doi.org/10.35793/SP.V8I2.34655>
- Rosendahl Appelquist, L., & Halsnæs, K. (2015). The Coastal Hazard Wheel system for coastal multi-hazard assessment & management in a changing climate. *Journal of Coastal Conservation*, 19(2), 157–179. <https://doi.org/10.1007/S11852-015-0379-7/TABLES/4>
- Roziqin, A., & Gustin, O. (2017). Pemetaan Perubahan Garis Pantai Menggunakan Citra Penginderaan Jauh di Pulau Batam. *Prosiding Industrial Research Workshop and National Seminar*, 8, 295–299. <https://doi.org/10.35313/IRWNS.V8I3.738>
- Rumahorbo, B. T., Warpur, M., Tanjung, R. H. R., & Hamuna, B. (2023). Spatial Analysis of Coastal Vulnerability Index to Sea Level Rise in Biak Numfor Regency (Indonesia). *Journal of Ecological Engineering*, 24(3), 113–125. <https://doi.org/10.12911/22998993/157539>
- Saaty, T. L. (1977). A scaling method for priorities in hierarchical structures. *Journal of Mathematical Psychology*, 15(3), 234–281. [https://doi.org/10.1016/0022-2496\(77\)90033-5](https://doi.org/10.1016/0022-2496(77)90033-5)
- Saaty, T. L. (2008). Decision making with the analytic hierarchy process. *International Journal of Services Sciences*, 1(1), 83. <https://doi.org/10.1504/IJSSCI.2008.017590>
- Said, A. zaena. (2012). *Kebijakan publik*. Salemba Humanika.
- Sakka, S., Paharuddin, P., & Rupang, E. (2014). Analisis Kerentanan Pantai Berdasarkan Coastal Vulnerability Index (CVI) Di Pantai Kota Makassar.



Torani Journal of Fisheries and Marine Science, 24(3), 49–53.
<https://doi.org/10.35911/TORANI.V24I3.237>

Sánchez-Arcilla, A., García-León, M., Gracia, V., Devoy, R., Stanica, A., & Gault, J. (2016). Managing coastal environments under climate change: Pathways to adaptation. *Science of The Total Environment*, 572, 1336–1352. <https://doi.org/10.1016/J.SCITOTENV.2016.01.124>

Sandhyavitri, A., Fatnanta, F., & Husaini, R. R. (2020). Identification and prioritization of coastal vulnerability areas based on coastal vulnerability indexes (CVI) and analytical hierarchy process (AHP). *AIP Conference Proceedings*, 2230(1). <https://doi.org/10.1063/5.0005007/1002523>

Santosa, L. W. (2005). *Pedoman Survei Cepat Terintegrasi Wilayah Kepesisiran (Rapid Integrated Survey for Coastal Area)*. Badan Penerbit dan Percetakan Fakultas Geografi.

Sarwono, S. W. (1992). *Psikologi Lingkungan*. PT.Grasindo.

Schmidt, L., Delicado, A., Gomes, C., Granjo, P., Guerreiro, S., Horta, A., Mourato, J., Prista, P., Saraiva, T., Truninger, M., O'Riordan, T., Santos, F. D., & Penha-Lopes, G. (2013). Change in the way we live and plan the coast: stakeholders discussions on future scenarios and adaptation strategies. <Https://Doi.Org/10.2112/SI65-175.1>, 65(sp1), 1033–1038. <https://doi.org/10.2112/SI65-175.1>

Sekovski, I., Del Río, L., & Armaroli, C. (2020). Development of a coastal vulnerability index using analytical hierarchy process and application to Ravenna province (Italy). *Ocean & Coastal Management*, 183, 104982. <https://doi.org/10.1016/J.OCECOAMAN.2019.104982>

Setiadi, S. Si. M. T. I., Aryanto, N., & Nurdin, N. (2021). Delineasi Batuan Granit dan Sedimen Daerah Bintan dan Sekitarnya, Kepulauan Riau Berdasarkan Analisis Data Gayaberat. *Jurnal Geologi Dan Sumberdaya Mineral*, 22(3), 143–152. <https://doi.org/10.33332/JGSM.GEOLOGI.V22I3.594>

Setianingsih, W., Sasmito, B., & Bashit, N. (2018). Analisis Sea Level Rise Di Laut Utara Jawa Terhadap Perubahan Garis Pantai Wilayah Demak Pada Tahun 2006-2016. *Jurnal Geodesi Undip*, 7(2), 53–64. <https://doi.org/10.14710/JGUNDIP.2018.20657>

Shaji, J. (2021). Evaluating social vulnerability of people inhabiting a tropical coast in Kerala, south west coast of India. *International Journal of Disaster Risk Reduction*, 56, 102130. <https://doi.org/10.1016/J.IJDRR.2021.102130>

Shepard, C. C., Crain, C. M., & Beck, M. W. (2011). The Protective Role of Coastal Marshes: A Systematic Review and Meta-analysis. *PLOS ONE*, 6(11), e27374. <https://doi.org/10.1371/JOURNAL.PONE.0027374>

Šimac, Z., Lončar, N., & Faivre, S. (2023). Overview of Coastal Vulnerability Indices with Reference to Physical Characteristics of the Croatian Coast of Istria. *Hydrology* 2023, Vol. 10, Page 14, 10(1), 14. <https://doi.org/10.3390/HYDROLOGY10010014>



- Stephens, S. A., Bell, R. G., & Lawrence, J. (2017). Applying Principles of Uncertainty within Coastal Hazard Assessments to Better Support Coastal Adaptation. *Journal of Marine Science and Engineering* 2017, Vol. 5, Page 40, 5(3), 40. <https://doi.org/10.3390/JMSE5030040>
- Sudha Rani, N. N. V., Satyanarayana, A. N. V., & Bhaskaran, P. K. (2015). Coastal vulnerability assessment studies over India: a review. *Natural Hazards*, 77(1), 405–428. <https://doi.org/10.1007/S11069-015-1597-X/TABLES/7>
- Suhana, M. P., Putra, R. D., Shafitri, L. F., Muliadi, M., Khairunnisa, K., Nurjaya, I. W., & Natih, N. M. N. (2021). Tingkat Kerentanan Pesisir Di Utara Dan Timur Pulau Bintan Provinsi Kepulauan Riau Tahun 2020. *Jurnal Teknologi Perikanan Dan Kelautan*, 11(1), 11–27. <https://doi.org/10.24319/JTPK.11.11-27>
- Suhana, M. P., Shafitri, L. F., Putra, R. D., Nugraha, A. H., Koenawan, C. J., Idris, F., Karlina, I., Febrianto, T., Angraini, R., Apdillah, D., Nurjaya, I. W., Natih, N. M. N., & Syakti, A. D. (2021). Characteristics of Sea Waves Condition at The Northern and Eastern of Bintan Island within Period of 2015-2019. *IOP Conference Series: Earth and Environmental Science*, 695(1), 012038. <https://doi.org/10.1088/1755-1315/695/1/012038>
- Sulaiha, F., Handoko, E. Y., & Yuwono, Y. (2020). Studi Variasi Permukaan Laut Di Wilayah Laut Jawa Dan Laut China Selatan Menggunakan Data Satelit Altimetri Jason. *Geoid*, 15(2), 172–178. <https://doi.org/10.12962/J24423998.V15I2.6953>
- Sunarto, Malawani, M. N., & Mutaqin, B. W. (2019). *Geomorfologi Lingkungan Pesisir*. Badan Penerbit Fakultas Geografi (BPFG).
- Sunarto, Marfai, M. A., & Setiawan, M. A. (2014). *Geomorfologi dan Dinamika Pesisir Jepara*. Gadjah Mada University Press.
- Susanto, K. E., Marfa'i, M. A., & Mardiatno, D. (2010). Proyeksi Kenaikan Permukaan Air Laut dan Dampaknya Terhadap Banjir Genangan Kawasan Pesisir. *Majalah Geografi Indonesia*, 24(2), 101–120. <https://doi.org/DOI:10.22146/mgi.13348>
- Tanim, A. H., Goharian, E., & Moradkhani, H. (2022). Integrated socio-environmental vulnerability assessment of coastal hazards using data-driven and multi-criteria analysis approaches. *Scientific Reports* 2022 12:1, 12(1), 1–28. <https://doi.org/10.1038/s41598-022-15237-z>
- Tano, R. A., Aman, A., Toualy, E., Kouadio, Y. K., François-Xavier, B. B. D., Addo, K. A., Tano, R. A., Aman, A., Toualy, E., Kouadio, Y. K., François-Xavier, B. B. D., & Addo, K. A. (2018). Development of an Integrated Coastal Vulnerability Index for the Ivorian Coast in West Africa. *Journal of Environmental Protection*, 9(11), 1171–1184. <https://doi.org/10.4236/JEP.2018.911073>



- Tejakusuma, I. G. (2011). Pengkajian Kerentanan Fisik Untuk Pengembangan Pesisir Wilayah Kota Makassar. *Jurnal Sains Dan Teknologi Indonesia*, 13(2), 124–133. <https://doi.org/10.29122/JSTI.V13I2.882>
- Thieler, E. R., Himmelstoss, E. A., Zichichi, J. L., & Ergul, A. (2009). The Digital Shoreline Analysis System (DSAS) Version 4.0 - An ArcGIS extension for calculating shoreline change. *U.S. Geological Survey Open-File Report 2008-1278*. <https://doi.org/10.3133/OFR20081278>
- Tragaki, A., Gallousi, C., & Karymbalis, E. (2018). Coastal Hazard Vulnerability Assessment Based on Geomorphic, Oceanographic and Demographic Parameters: The Case of the Peloponnese (Southern Greece). *Land 2018, Vol. 7, Page 56*, 7(2), 56. <https://doi.org/10.3390/LAND7020056>
- Triatmodjo, B. (1999). *Teknik Pantai*. Beta Offset.
- Triatmodjo, B. (2012). *Perencanaan Bangunan Pantai*. Beta Offset.
- Ulum, M., & Khomsin, K. (2013). Perbandingan Akurasi Prediksi Pasang Surut Antara Metode Admiralty Dan Metode Least Square. *Geoid*, 9(1), 65–72. <https://doi.org/10.12962/J24423998.V9I1.746>
- UNWTO. (2008). *International recommendations for tourism statistics*. World Tourism Organization Madrid.
- Verstappen, H. T. (1983). *Applied geomorphology: geomorphological surveys for environmental development*. Elsevier Science Publishing Company Inc.
- Wardhana, I. (2020). Pengelolaan Wilayah Dan Sumber Daya Pesisir Terintegrasi Dalam Implementasi Rencana Tata Ruang Kawasan Industri Oleochemical Maloy Kutai Timur. *Jurnal Renaissance*, 5(1), 599–609. <https://doi.org/10.53878/JR.V5I1.107>
- Williams, A. T., Rangel-Buitrago, N., Pranzini, E., & Anfuso, G. (2018). The management of coastal erosion. *Ocean & Coastal Management*, 156, 4–20. <https://doi.org/10.1016/J.OCECOAMAN.2017.03.022>
- Witasari, Y., & Prasetyo, S. (2020). Adaptasi Masyarakat Nelayan Terhadap Kerentanan Fisik Pesisir Pulau Bintan. *JFMR (Journal of Fisheries and Marine Research)*, 4(3), 428–435. <https://doi.org/10.21776/UB.JFMR.2020.004.03.16>
- Wulandari, S., Wulandari, S. J., Febrianto, T., Suhana, M. P., Putra, R. D., & Apdillah, D. (2022). Perbandingan Penerapan Hasil Metode Admiralty dan Least Square untuk Peramalan Pasang Surut di Selat Bintan, Kepulauan Riau. *Jurnal Kelautan: Indonesian Journal of Marine Science and Technology*, 15(3), 258–269. <https://doi.org/10.21107/jk.v15i3.11406>
- Wuriyatmo, H., Koesuma, S., & Yunianto, M. (2016). Analisa Sea Level Rise Dari Data Satelit Altimetri Topex/Poseidon, Jason-1 Dan Jason-2 Di Perairan Laut Pulau Jawa Periode 2000 – 2010. *INDONESIAN JOURNAL OF APPLIED PHYSICS*, 2(02), 65–72. <https://doi.org/10.13057/IJAP.V2I02.1296>



Wyrtki, K. (1961). *Physical oceanography of Southeast Asian waters*. University of California.

Xu, H. (2006). Modification of normalised difference water index (NDWI) to enhance open water features in remotely sensed imagery. *International Journal of Remote Sensing*, 27(14), 3025–3033. <https://doi.org/10.1080/01431160600589179>

Yanti, V., Meilianda, E., & Syamsidik, S. (2019). Analisis Pengaruh Parameter Fisik Terhadap Indeks Kerentanan Pantai (CVI) di Kawasan Pantai Banda Aceh dan Sekitarnya (Studi Kasus Pada Kawasan Ujung Pancu Sampai Ujung Batee). *Jurnal Arsip Rekayasa Sipil Dan Perencanaan*, 2(2), 123–133. <https://doi.org/10.24815/jarsp.v2i2.13212>

Yuliastini, L. F., Zainuri, M., & Widiaratih, R. (2023). Analisis Kerentanan Pesisir di Kabupaten Kendal. *Indonesian Journal of Oceanography*, 5(1), 80–89. <https://doi.org/10.14710/IJOCE.V5I1.16061>