

DAFTAR PUSTAKA

- Adenugba, O., Li, H., Daramola, S., Adewale, B., & Gong, Z. (2024a). Effects of localized development on land use and coastline dynamics: A focus on recent changes along the Lekki Peninsula. *Regional Studies in Marine Science*, 78, 103744. <https://doi.org/10.1016/J.RSMA.2024.103744>
- Adenugba, O., Li, H., Daramola, S., Adewale, B., & Gong, Z. (2024b). Effects of localized development on land use and coastline dynamics: A focus on recent changes along the Lekki Peninsula. *Regional Studies in Marine Science*, 78, 103744. <https://doi.org/10.1016/J.RSMA.2024.103744>
- Agustin, normala sekar, & Syah, ach. fachruddin. (2020). Analisis Perubahan Garis Pantai Di Pulau Madura Menggunakan Citra Satelit Landsat 8 Analysis Of The Coastline Change In Madura Island Using The Satellite Image. *Juvenil*, 1(3), 427–436. <https://doi.org/10.21107/juvenil.v1i3.8843>
- Ahmady, N. N., & Rahman, I. (2025). Dampak Perubahan Iklim Terhadap Ekosistem Pesisir Dipantai Pangandaran. *Jurnal Ilmu Sosial Dan Humaniora*, 3(1), 01–06. <https://journal.appisi.or.id/index.php/WISSEN>
- Akdeniz, H. B., & İnam, Ş. (2023). Spatio-temporal analysis of shoreline changes and future forecasting: the case of Küçük Menderes Delta, Türkiye. *Journal of Coastal Conservation*, 27(4). <https://doi.org/10.1007/S11852-023-00966-8>
- Ali, Y., & Rahman, M. M. (2025). Quantifying forest stocking changes in Sundarbans mangrove using remote sensing data. *Science of Remote Sensing*, 11, 100181. <https://doi.org/https://doi.org/10.1016/j.srs.2024.100181>
- Amaral, C. H. do, Poulter, B., Lagomasino, D., Fatoiyinbo, T., Taillie, P., Lizcano, G., Canty, S., Silveira, J. A. H., Teutli-Hernández, C., Cifuentes, M., Charles, S. P., Moreno, C. S., González-Trujillo, J. D., & Roman-Cuesta, R. M. (2022). Drivers of mangrove vulnerability and resilience to tropical cyclones in the North Atlantic Basin. *BioRxiv*, 2022.11.22.517275. <https://doi.org/10.1101/2022.11.22.517275>
- Annafiyah, A., Maulidi, A., Kurniadın, N., & Wilujeng, A. D. (2022). Analisis Perubahan Garis Pantai Wilayah Pesisir Selatan Kabupaten Sampang Menggunakan Citra Landsat. *Sebatik*, 26(2), 439–445. <https://doi.org/10.46984/sebatik.v26i2.1936>
- Appoo, J., Bunbury, N., Jaquemet, S., & Graham, N. A. J. (2024). Seabird nutrient subsidies enrich mangrove ecosystems and are exported to nearby coastal habitats. *IScience*, 27(4), 109404. <https://doi.org/10.1016/J.ISCI.2024.109404>
- Asmal, I., Syarif, E., Amin, S., Yahya Siradjuddin, M., Asmal, S., Rivai, F., Latief, R., & Ridwan. (2024). Human external and internal activities in the destruction of the north galesong coastal area. *Journal of Coastal Conservation*, 28(1), 1–18. <https://doi.org/10.1007/S11852-023-01026-X/METRICS>
- Assaf, H., Idwan, S., Jallad, A. H., Ammari, M. Z. J., Chaar, A. Al, & Kouja, M.

- (2022). Public Values Regarding an Urban Mangrove Wetland in the United Arab Emirates. *Journal of Environmental Engineering and Landscape Management*, 30(1), 114–123. <https://doi.org/10.3846/jeelm.2022.16333>
- Badan Pusat Statistik. (2022). *Kabupaten Ogan Komering Ilir Dalam Angka 2022 - Badan Pusat Statistik Kabupaten Ogan Komering Ilir*. <https://okikab.bps.go.id/id/publication/2022/02/25/2ae0d7d8209667bdea3a9ed4/kabupaten-ogan-komering-ilir-dalam-angka-2022.html>
- Badan Pusat Statistik. (2024). *Jumlah Curah Hujan - Tabel Statistik - Badan Pusat Statistik Kabupaten Ogan Komering Ilir*. <https://okikab.bps.go.id/id/statistics-table/2/MjMxIzI=/jumlah-curah-hujan.html>
- Bagindo, M. N., Herwandi, H., Chaniago, M. I., & Saga, S. S. (2023). Socio-Economic Changes in Coastal Fishermen of West Sumatra as the Impact of Coastal Abrasion. *Asian Journal of Environment-Behaviour Studies*, 8(26), 37–54. <https://doi.org/10.21834/AJE-BS.V8I26.433>
- Bahrami, N., & Siadatmousavi, S. M. (2025). Prediction of coastline evolution using remote sensing and deep learning approach; Case study of the Northwest of the Persian Gulf. *Marine Geology*, 480, 107472. <https://doi.org/10.1016/J.MARGEOT.2024.107472>
- Bastien-Olvera, B. A., Rivera, A., Gray, E., Mitchell, S., Favoretto, F., Ezcurra, E., & Aburto-Oropeza, O. (2024). Mangrove preservation could have significantly reduced damages from Hurricane Otis on the coast of Guerrero, Mexico. *Science of The Total Environment*, 957, 177822. <https://doi.org/10.1016/J.SCITOTENV.2024.177822>
- Basset, M., Gratiot, N., Anthony, E. J., Bouchette, F., Goichot, M., & Marchesiello, P. (2019). Mangroves and shoreline erosion in the Mekong River delta, Viet Nam. *Estuarine, Coastal and Shelf Science*, 226, 106263. <https://doi.org/10.1016/J.ECSS.2019.106263>
- Bishop-Taylor, R., Nanson, R., Sagar, S., & Lymburner, L. (2021). Mapping Australia's dynamic coastline at mean sea level using three decades of Landsat imagery. *Remote Sensing of Environment*, 267, 112734. <https://doi.org/https://doi.org/10.1016/j.rse.2021.112734>
- Black, S. K., Hughes, Z. J., & FitzGerald, D. M. (2025). Controls on coastal bluff erosion of a drowned drumlin field: Boston Harbor, Massachusetts. *Geomorphology*, 468, 109490. <https://doi.org/10.1016/J.GEOMORPH.2024.109490>
- Bojang, A., Oyedotun, T. D. T., Sawa, B. A., & Isma'il, M. (2023). Spatio-temporal coastline dynamics of the Gambia littoral zone from 1989 to 2019. *Geosystems and Geoenvironment*, 2(4), 100194. <https://doi.org/10.1016/J.GEOGEO.2023.100194>
- Bónová, K., Bóna, J., Mikuš, T., & Ferková, A. (2024). Heavy minerals of the

- aeolian sediments in the East Slovak Basin (Western Carpathians) – Implications for their origin, transport process and sedimentary history. *Aeolian Research*, 66. <https://doi.org/10.1016/j.aeolia.2024.100897>
- Borzi, L., Marino, M., Stagnitti, M., Stefano, A. Di, Sciandrello, S., Cavallaro, L., Foti, E., & Musumeci, R. E. (2025). Impact of coastal land use on long-term shoreline change. *Ocean & Coastal Management*, 262, 107583. <https://doi.org/10.1016/J.OCECOAMAN.2025.107583>
- Bryan-Brown, D. N., Connolly, R. M., Richards, D. R., Adame, F., Friess, D. A., & Brown, C. J. (2020). Global trends in mangrove forest fragmentation. *Scientific Reports* 2020 10:1, 10(1), 1–8. <https://doi.org/10.1038/s41598-020-63880-1>
- Cabezas-Rabadán, C., Pardo-Pascual, J. E., Almonacid-Caballer, J., & Rodilla, M. (2019). Detecting problematic beach widths for the recreational function along the Gulf of Valencia (Spain) from Landsat 8 subpixel shorelines. *Applied Geography*, 110. <https://doi.org/10.1016/J.APGEOG.2019.102047>
- Cabezas-Rabadán, C., Pardo-Pascual, J. E., Palomar-Vázquez, J., Roch-Talens, A., & Guillén, J. (2024). Satellite observations of storm erosion and recovery of the Ebro Delta coastline, NE Spain. *Coastal Engineering*, 188, 104451. <https://doi.org/10.1016/j.coastaleng.2023.104451>
- Castelle, B., & Harley, M. (2020). Extreme events: Impact and recovery. *Sandy Beach Morphodynamics*, 533–556. <https://doi.org/10.1016/B978-0-08-102927-5.00022-9>
- Chaiklang, P., Karthe, D., Babel, M., & Giessen, L. (2024). Trees , Forests and People Reviewing changes in mangrove land use over the decades in Thailand : Current responses and challenges. *Trees, Forests and People*, 17(July). <https://doi.org/10.1016/j.tfp.2024.100630>
- Chaiklang, P., Karthe, D., Babel, M., Giessen, L., & Schusser, C. (2024). Reviewing changes in mangrove land use over the decades in Thailand: Current responses and challenges. *Trees, Forests and People*, 17, 100630. <https://doi.org/10.1016/J.TFP.2024.100630>
- Chen, C., Bu, J., Zhang, Y., Zhuang, Y., Chu, Y., Hu, J., & Guo, B. (2019). The application of the tasseled cap transformation and feature knowledge for the extraction of coastline information from remote sensing images. *Advances in Space Research*, 64(9), 1780–1791. <https://doi.org/10.1016/J.ASR.2019.07.032>
- Chen, C., Liang, J., Xie, F., Hu, Z., Sun, W., Yang, G., Yu, J., Chen, L., Wang, L., Wang, L., Chen, H., He, X., & Zhang, Z. (2022). Temporal and spatial variation of coastline using remote sensing images for Zhoushan archipelago, China. *International Journal of Applied Earth Observation and Geoinformation*, 107, 102711. <https://doi.org/10.1016/J.JAG.2022.102711>

- Chen, X., Zhenshan, X., Ming, J., Xianguo, L., Yuanchun, Z., Yi, G., Xiaoyu, S., Dan, W., & Ruxu, L. (2024). Simulating Potential Impacts of Climate Change on the Habitats and Carbon Benefits of Mangroves in China. *Global Ecology and Conservation*, 54(November 2023), e03048. <https://doi.org/10.1016/j.gecco.2024.e03048>
- Chowdhury, M. S., & Hafsa, B. (2022). Multi-decadal land cover change analysis over Sundarbans Mangrove Forest of Bangladesh: A GIS and remote sensing based approach. *Global Ecology and Conservation*, 37(May), e02151. <https://doi.org/10.1016/j.gecco.2022.e02151>
- Conrad, S. R., Santos, I. R., White, S. A., Holloway, C. J., Brown, D. R., Wadnerkar, P. D., Correa, R. E., Woodrow, R. L., & Sanders, C. J. (2023). Land use change increases contaminant sequestration in blue carbon sediments. *Science of The Total Environment*, 873, 162175. <https://doi.org/10.1016/J.SCITOTENV.2023.162175>
- Damastuti, E., van Wesenbeeck, B. K., Leemans, R., de Groot, R. S., & Silvius, M. J. (2023). Effectiveness of community-based mangrove management for coastal protection: A case study from Central Java, Indonesia. *Ocean & Coastal Management*, 238, 106498. <https://doi.org/10.1016/J.OCECOAMAN.2023.106498>
- Damaywanti, K. (2019). Dampak Abrasi Pantai Terhadap Lingkungan Sosial (Studi Kasus di Desa Bedono, Sayung Demak). *Prosiding Seminar Nasional Pengelolaan Sumberdaya Alam Dan Lingkungan: Optimasi Pengelolaan Sumberdaya Alam Dan Lingkungan Dalam Mewujudkan Pembangunan Berkelanjutan*, 363–367.
- Das, A., Choudhury, K. M., & Choudhury, A. K. (2023). An assessment of mangrove vegetation changes in reference to cyclone impacted climatic alterations at land–ocean interface of Indian Sundarbans with application of remote sensing–based analytical tools. *Environmental Science and Pollution Research*, 30(38), 89311–89335. <https://doi.org/10.1007/S11356-023-28486-W>
- Das Adhikari, M., Park, S., & Yum, S. G. (2025). Coastal vulnerability to extreme weather events: An integrated analysis of erosion, sediment movement, and land subsidence based on multi-temporal optical and SAR satellite data. *Journal of Environmental Management*, 374, 124025. <https://doi.org/10.1016/J.JENVMAN.2025.124025>
- de Schipper, M. A., Ludka, B. C., Raubenheimer, B., Luijendijk, A. P., & Schlacher, T. A. (2021). Beach nourishment has complex implications for the future of sandy shores. *Nature Reviews Earth and Environment*, 2(1), 70–84. <https://doi.org/10.1038/S43017-020-00109-9>
- Del Valle, A., Eriksson, M., Ishizawa, O. A., & Miranda, J. J. (2020). Mangroves protect coastal economic activity from hurricanes. *Proceedings of the National*

- Academy of Sciences of the United States of America*, 117(1), 265–270. https://doi.org/10.1073/PNAS.1911617116/SUPPL_FILE/PNAS.1911617116.SAPP.PDF
- Desra Suhery, N., Kadek, N., Pusparini, S., Nurcahyanto, A., Syahrir, M., & Rony, A. M. (2016). Ko-Eksistensi Kegiatan Perikanan Tangkap Dan Keberadaan Anjungan Migas Di Laut Serta Pendekatan Pengelolaannya Di Pantai Utara Jawa Barat (Coexistence Between Capture Fisheries And Oil & Gas Platform – A Management Approach In Northern Coast Of West Java). *Marine Fisheries : Journal of Marine Fisheries Technology and Management*, 7(1), 13–24. <https://doi.org/10.29244/JMF.7.1.13-24>
- Dorrell, R., Lloyd, C., Lincoln, B., Rippeth, T., Taylor, J., Caulfield, C., Sharples, J., Polton, J., Scannell, B., Greaves, D., Hall, R., & Simpson, J. (2021). Anthropogenic Mixing of Seasonally Stratified Shelf Seas by Offshore Wind Farm Infrastructure. *Frontiers in Marine Science*, 9. <https://doi.org/10.3389/fmars.2022.830927>
- Dube, K., Nhamo, G., & Chikodzi, D. (2021). Rising sea level and its implications on coastal tourism development in Cape Town, South Africa. *Journal of Outdoor Recreation and Tourism*, 33, 100346. <https://doi.org/10.1016/J.JORT.2020.100346>
- Duke, N. C., Canning, A. D., & Mackenzie, J. R. (2024). More Intense Severe Tropical Cyclones in Recent Decades Cause Greater Impacts on Mangroves Bordering Australia's Great Barrier Reef. *Oceanographic Processes of Coral Reefs*, 226–253. <https://doi.org/10.1201/9781003320425-18>
- Erandi, M.-M., Rubicel, T.-A., José, T.-V., & Patricia, M.-C. (2025). An approach for accurate identification and monitoring of species in mangrove forests based on multi-source spectral data and deep learning. *Ecological Informatics*, 85, 102961. <https://doi.org/https://doi.org/10.1016/j.ecoinf.2024.102961>
- Evelpidou, N., & Spyrou, E. (2025). Coastal areas and wetlands: Suggestions for sustainable mitigation and management strategies. *Climate and Anthropogenic Impacts on Earth Surface Processes in the Anthropocene*, 313–322. <https://doi.org/10.1016/B978-0-443-13215-5.00006-1>
- Fajri, C., Amelya, A., & Suworo, S. (2022). Pengaruh Kepuasan Kerja dan Disiplin Kerja terhadap Kinerja Karyawan PT. Indonesia Applicad. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, 5(1), 369–373. <https://doi.org/10.54371/jiip.v5i1.425>
- Favaretto, C., Bertoni, D., Pozzebon, A., Martinelli, L., Sarti, G., & Ruol, P. (2025). Beach nourishment with coarse sediments: An in-situ investigation on the issues of abrasion and chipping. *Applied Ocean Research*, 154, 104409. <https://doi.org/10.1016/J.APOR.2024.104409>
- Fitton, J. M., Rennie, A. F., Hansom, J. D., & Muir, F. M. E. (2021). Remotely sensed mapping of the intertidal zone: A Sentinel-2 and Google Earth Engine methodology. *Remote Sensing Applications: Society and Environment*, 22,

100499. <https://doi.org/10.1016/J.RSASE.2021.100499>
- Galata, A. W. (2020). Analysis of land use/land cover changes and their causes using landsat data in hangar watershed, Abay basin, Ethiopia. *Journal of Sedimentary Environments*, 2020, 5:4, 5(4), 415–423. <https://doi.org/10.1007/S43217-020-00025-4>
- Gernon, T. M., Hincks, T. K., Brune, S., Braun, J., Jones, S. M., Keir, D., Cunningham, A., & Glerum, A. (2024). Coevolution of craton margins and interiors during continental break-up. *Nature*, 632(8024), 327–335. <https://doi.org/10.1038/S41586-024-07717-1>
- Gunawan, H., Setyawati, T., Atmoko, T., Subarudi, Kwatrina, R. T., Yeny, I., Yuwati, T. W., Effendy, R., Abdullah, L., Mukhlisi, Lastini, T., Arini, D. I. D., Sari, U. K., Sitepu, B. S., Pattiselanno, F., & Kuswanda, W. (2024). A review of forest fragmentation in Indonesia under the DPSIR framework for biodiversity conservation strategies. *Global Ecology and Conservation*, 51, e02918. <https://doi.org/10.1016/J.GECCO.2024.E02918>
- Harris, P. T., Macmillan-Lawler, M., Rupp, J., & Baker, E. K. (2014). Geomorphology of the oceans. In *Marine Geology* (Vol. 352). Elsevier. <https://doi.org/10.1016/J.MARGEOT.2014.01.011>
- He, Z., Yu, Z., Fürst, C., & Hersperger, A. M. (2023). Peer effects drive non-conformance between built-up land expansion and zoning: Evidence from Zhangzhou city, China. *Applied Geography*, 152, 102875. <https://doi.org/10.1016/J.APGEOG.2023.102875>
- Hossen, M. F., & Sultana, N. (2023). Shoreline change detection using DSAS technique: Case of Saint Martin Island, Bangladesh. *Remote Sensing Applications: Society and Environment*, 30, 100943. <https://doi.org/10.1016/J.RSASE.2023.100943>
- Hu, W., Wang, Y., Zhang, D., Yu, W., Chen, G., Xie, T., Liu, Z., Ma, Z., Du, J., Chao, B., Lei, G., & Chen, B. (2020). Mapping the potential of mangrove forest restoration based on species distribution models: A case study in China. *Science of The Total Environment*, 748, 142321. <https://doi.org/10.1016/J.SCITOTENV.2020.142321>
- Huang, X., Li, J., Yang, J., Zhang, Z., Li, D., & Liu, X. (2021). 30 m global impervious surface area dynamics and urban expansion pattern observed by Landsat satellites: From 1972 to 2019. *Science China Earth Sciences*, 64(11), 1922–1933. <https://doi.org/10.1007/S11430-020-9797-9>
- Ilman, M., Dargusch, P., Dart, P., & Onrizal. (2016). A historical analysis of the drivers of loss and degradation of Indonesia's mangroves. *Land Use Policy*, 54, 448–459. <https://doi.org/10.1016/J.LANDUSEPOL.2016.03.010>
- Islam, M. S., Uddin, M. A., & Hossain, M. A. (2021). Assessing the dynamics of land cover and shoreline changes of Nijhum Dwip (Island) of Bangladesh

- using remote sensing and GIS techniques. *Regional Studies in Marine Science*, 41, 101578. <https://doi.org/10.1016/J.RSMA.2020.101578>
- Ismiyanti, D., Buchori, I., & Artikel, I. (2021). Dampak Abrasi Terhadap Kondisi Sosial Ekonomi Masyarakat Kecamatan Kedung, Jepara. *Jurnal Pembangunan Wilayah Dan Kota*, 17(3), 251–265. <https://doi.org/10.14710/PWK.V17I3.21998>
- Jayson-Quashigah, P. N., Staneva, J., Chen, W., Djath, B., Mahu, E., & Appeaning Addo, K. (2025). Evaluating mangroves as nature-based solutions for coastal protection under current and future sea level rise scenarios. *Frontiers in Marine Science*, 12, 1526082. <https://doi.org/10.3389/FMARS.2025.1526082/BIBTEX>
- Kang, B., & Xie, S. (2025). Accelerated land loss and nuisance flooding potential in the Barataria Basin: The impacts of land subsidence, sea-level rise, and tidal dynamics. *Journal of Sea Research*, 205, 102594. <https://doi.org/10.1016/J.SEARES.2025.102594>
- Kanjin, K., & Alam, B. M. (2024). Assessing changes in land cover, NDVI, and LST in the Sundarbans mangrove forest in Bangladesh and India: A GIS and remote sensing approach. *Remote Sensing Applications: Society and Environment*, 36(June), 101289. <https://doi.org/10.1016/j.rsase.2024.101289>
- Kioka, A., & Strasser, M. (2022). Oceanic Trenches. *Treatise on Geomorphology*, 882–900. <https://doi.org/10.1016/B978-0-12-818234-5.00167-X>
- Kumala sari, R., Kusuma, N., Ferdinandus, S., Syalendra, P., Fathonah, S., Asriani Ridzal, D., wulla Rato, K., Apriani, E., Yurni, parta Wibowo, T., Mardhiyana, D., nirmala Purba, O., khaerul mu'min, A., ilham s, M., & Togatorop, M. (2023). *Metodologi Penelitian Pendidikan* (A. cahyo purnomo (ed.)). Sada Kurnia Pustaka. https://books.google.co.id/books?id=3He2EAAAQBAJ&hl=id&source=gbs_navlinks_s
- Kumari, P., & Pathak, B. (2023). *Effect of Climate Change and Urbanization on Mangrove Ecosystem*. 293–301. https://doi.org/10.1007/978-981-19-7618-6_16
- Laroche-Pinel, E., Cianciola, V., Singh, K., Vivaldi, G. A., & Brillante, L. (2024). Assessing the spatial-temporal performance of machine learning in predicting grapevine water status from Landsat 8 imagery via block-out and date-out cross-validation. *Agricultural Water Management*, 306, 109163. <https://doi.org/10.1016/J.AGWAT.2024.109163>
- Lasaiba, M. A. (2022). Pemanfaatan Citra Landsat 8 Oli/Tirs Untuk Identifikasi Erapatan Vegetasi Menggunakan Metode Normalized Difference Vegetation Index (Ndvi) Di Kota Ambon. *JURNAL GEOGRAFI Geografi Dan Pengajarannya*, 20(1), 53–65. <https://doi.org/10.26740/jggp.v20n1.p53-65>

- Leal, M., & Spalding, M. D. (Eds.). (2024). *The State of the World's Mangroves 2024*. <https://doi.org/10.5479/10088/119867>
- Li, H., Zhang, Y., Fan, C., Hou, X., Zeng, L., & Guo, P. (2024). Characteristics and models of anthropogenic disturbances on islands from perspective of coastline: Extensive cases from Indian Ocean and mediterranean sea. *Ecological Indicators*, 160, 111835. <https://doi.org/10.1016/J.ECOLIND.2024.111835>
- Li, J., Chu, S., Hu, Q., Cong, Y., Cheng, J., Chen, H., Cheng, L., Zhang, G., & Xing, S. (2024). Land-sea classification based on the fast feature detection model for ICESat-2 ATL03 datasets. *International Journal of Applied Earth Observation and Geoinformation*, 130, 103916. <https://doi.org/10.1016/J.JAG.2024.103916>
- Li, Y., Wen, M., Yu, H., Yang, P., Wang, F., & Wang, F. (2024). China Geology Changes of coastline and tidal flat and its implication for ecological protection under human activities : Take China ' s Bohai Bay as an example. *China Geology*, 7(1), 26–35. <https://doi.org/10.31035/cg2023007>
- Liu, C., Zhang, Q., Luo, H., Qi, S., Tao, S., Xu, H., & Yao, Y. (2019). An efficient approach to capture continuous impervious surface dynamics using spatial-temporal rules and dense Landsat time series stacks. *Remote Sensing of Environment*, 229, 114–132. <https://doi.org/10.1016/J.RSE.2019.04.025>
- Liu, R., Wang, Q., Kong, H., & Li, Y. (2025). Priority protected areas for mangrove conservation in coastal Guangdong, China: Addressing climate and land cover changes. *Ocean & Coastal Management*, 267, 107707. <https://doi.org/10.1016/J.OCECOAMAN.2025.107707>
- Liu, Y., Feng, J., Cheng, Q., Tsou, J. Y., Huang, B., Ji, C., Yang, Y., & Zhang, Y. (2024a). Investigating spatiotemporal coastline changes and impacts on coastal zone management: A case study in Pearl River Estuary and Hong Kong's coast. *Ocean & Coastal Management*, 257, 107354. <https://doi.org/10.1016/J.OCECOAMAN.2024.107354>
- Liu, Y., Feng, J., Cheng, Q., Tsou, J. Y., Huang, B., Ji, C., Yang, Y., & Zhang, Y. (2024b). Investigating spatiotemporal coastline changes and impacts on coastal zone management: A case study in Pearl River Estuary and Hong Kong's coast. *Ocean & Coastal Management*, 257, 107354. <https://doi.org/10.1016/J.OCECOAMAN.2024.107354>
- Lu, J., Zheng, W., Song, D., Lv, X., Wang, W., & Shi, H. (2025). The individual and combined effects of coastline changes and riverine input on water quality: A multi-scenario simulation perspective. *Marine Pollution Bulletin*, 218, 118155. <https://doi.org/10.1016/J.MARPOLBUL.2025.118155>
- Magdalena, I., Kristianto, I. J., Rif'atin, H. Q., Ratnayake, A. S., Saengsupavanich, C., Solekhudin, I., & Helmi, M. (2025). Reduction in wave shoaling over a linear transition bottom using a porous medium. *Theoretical and Applied Mechanics Letters*, 15(1), 100556.

- <https://doi.org/10.1016/J.TAML.2024.100556>
- Mamun, M., Hasan, M., & An, K. G. (2024). Advancing reservoirs water quality parameters estimation using Sentinel-2 and Landsat-8 satellite data with machine learning approaches. *Ecological Informatics*, 81, 102608. <https://doi.org/10.1016/J.ECOINF.2024.102608>
- Mashimbye, Z. E., & Loggenberg, K. (2023). A Scoping Review of Landform Classification Using Geospatial Methods. *Geomatics 2023, Vol. 3, Pages 93-114*, 3(1), 93–114. <https://doi.org/10.3390/GEOMATICS3010005>
- Mattone, C., & Sheaves, M. (2024). Mangrove forest ecological function is influenced by the environmental settings and the benthic fauna composition. *Estuarine, Coastal and Shelf Science*, 309(August), 108959. <https://doi.org/10.1016/j.ecss.2024.108959>
- Maulana, N. S. M., Zulkifli, M. S., Khalid, A. A., Shahrudin, R., Anuar, S. T., Jaafar, M., & Ariffin, E. H. (2025). Revealing Microplastic Contamination in Mangrove Sediments from Setiu Wetlands, Malaysia. *Indonesian Journal of Chemistry*, 25(2), 520–533. <https://doi.org/10.22146/IJC.100813>
- Miatta, M., Snelgrove, P. V. R., Bates, A. E., Bailey, M., Bradbury, I. R., Cadman, R., Campanyà-Llovet, N., Clinton, M. E., Cote, D., Denniston, M., de Young, B., Gregory, R. S., King, B. G. C., Kourantidou, M., Layton, K. K. S., McBride, C. E., Oliver, E. C. J., Sipler, R. E., & Ziegler, S. E. (2025). Developing socio-ecological indicators for changing Northern Coastal environments. *FACETS*, 10, 1–18. <https://doi.org/10.1139/FACETS-2023-0183>
- Ministry, O., Affairs, M., & Indonesia, F. (2021). Dynamic Sedimentary Environments of Mangrove Coasts. In *Dynamic Sedimentary Environments of Mangrove Coasts*. <https://doi.org/10.1016/c2018-0-00130-9>
- Mokhtar, K., Chuah, L. F., Abdullah, M. A., Oloruntobi, O., Ruslan, S. M. M., Albasher, G., Ali, A., & Akhtar, M. S. (2023). Assessing coastal bathymetry and climate change impacts on coastal ecosystems using Landsat 8 and Sentinel-2 satellite imagery. *Environmental Research*, 239, 117314. <https://doi.org/10.1016/J.ENVRES.2023.117314>
- Murdiyarso, D., Krisnawati, H., Adinugroho, W. C., & Sasmito, S. D. (2023). Deriving emission factors for mangrove blue carbon ecosystem in Indonesia. *Carbon Balance and Management*, 18(1), 1–12. <https://doi.org/10.1186/S13021-023-00233-1/FIGURES/4>
- Nghiningwa, A. N., Adelekan, I. O., & Mshelia, Z. H. (2025). Shoreline change, sea level rise and the impacts along the coastline of Walvis Bay, Namibia. *Ocean & Coastal Management*, 266, 107690. <https://doi.org/10.1016/J.OCECOAMAN.2025.107690>
- Pardo-Pascual, J. E., Sánchez-García, E., Almonacid-Caballer, J., Palomar-

- Vázquez, J. M., de los Santos, E. P., Fernández-Sarría, A., & Balaguer-Beser, Á. (2018). Assessing the Accuracy of Automatically Extracted Shorelines on Microtidal Beaches from Landsat 7, Landsat 8 and Sentinel-2 Imagery. *Remote Sensing 2018*, Vol. 10, Page 326, 10(2), 326. <https://doi.org/10.3390/RS10020326>
- Parida, B. R., & Kumar, P. (2020). Mapping and dynamic analysis of mangrove forest during 2009–2019 using landsat–5 and sentinel–2 satellite data along Odisha Coast. *Tropical Ecology*, 61(4), 538–549. <https://doi.org/10.1007/S42965-020-00112-7/METRICS>
- Patty, S. I., Nurdiansah, D., Rizqi, M. P., Akbar, N., Huwae, R., Program, S. S., & Sciences, M. (2025). *Analysis of Mangrove Vegetation Index Using Landsat 8 Images in Dodinga Bay, West Halmahera*. 13(June), 155–163.
- Pedretti, L., Giarola, A., Korff, M., Lambert, J., & Meisina, C. (2024). Comprehensive database of land subsidence in 143 major coastal cities around the world: overview of issues, causes, and future challenges. *Frontiers in Earth Science*, 12, 1351581. <https://doi.org/10.3389/FEART.2024.1351581/XML/NLM>
- Pereira, E. S., dos Santos, C. A., Vargas, R., Coutinho, I. P. de O., Mansur, K. L., Araújo, J. C. de, Cambra, M. F. E., Santos, E. E. de S., Fernandez, G. B., Michelotti, P., & Dias, F. F. (2024). Coastline variations on a section of a coast dominated by cliffs: Past, current and future changes in the municipality of São Francisco de Itabapoana, Brazil. *Evolving Earth*, 2, 100037. <https://doi.org/10.1016/J.EVE.2024.100037>
- Perubahan Garis Pantai Dengan Menggunakan Citra Landsat, S., Pesisir Pantai Rajabasa, D., Selatan Muhamad Faqih Fajri, L., & Atmodjo dan Alfi Satriadi, W. (2024). Studi Perubahan Garis Pantai Dengan Menggunakan Citra Landsat 8 Di Pesisir Pantai Rajabasa, Lampung Selatan. *Indonesian Journal of Oceanography*, 6(2), 102–113. <https://doi.org/10.14710/IJOCE.V6I2.19652>
- Putri, S. I., Qomar, N., & Oktorini, Y. (2021). Analisis Kecukupan Ruang Terbuka Hijau (Rth) Kota Batam. *Jurnal Belantara*, 4(2), 176–185. <https://doi.org/10.29303/jbl.v4i2.604>
- Rahman, K.-S., Dana, N. H., Rahman, M. M., Mondal, H. S., Chen, L., & Islam, M. N. (2025). Degradation of mangrove forests in the Sundarbans: An assessment based on perspectives of mangrove resource collectors using the DPSIR framework. *Trees, Forests and People*, 19, 100769. <https://doi.org/https://doi.org/10.1016/j.tfp.2024.100769>
- Rahmanto, E., Rahmabudhi, S., & Kustia, T. (2022). Kajian Analisis Spasial Penentuan Tipe Iklim Menurut Klasifikasi Schmidt – Ferguson Menggunakan Metode Thiessen – Polygon di Provinsi Riau. *Buletin GAW Bariri*, 3(1), 35–42. <https://doi.org/10.31172/bgb.v3i1.66>
- Ramena, G. O., V Wuisang, C. E., & P Siregar, F. O. (2020). Pengaruh Aktivitas

- Masyarakat Terhadap Ekosistem Mangrove Di Kecamatan Mananggu. *Jurnal Spasial*, 7(3), 343–351.
- RKPD. (2023). *Perubahan Rencana Kerja Pemerintah Daerah Kabupaten Ogan Komering Ilir Tahun 2023*.
- Rumondang, R., Feliatra, F., Warningsih, T., & Yoswati, D. (2024). Sustainable management model and ecosystem services of mangroves based on socio-ecological system on the coast of Batu Bara Regency, Indonesia. *Environmental Research Communications*, 6(3), 035008. <https://doi.org/10.1088/2515-7620/AD2D01>
- Samal, P., Srivastava, J., Charles, B., & Singarasubramanian, S. R. (2023). Species distribution models to predict the potential niche shift and priority conservation areas for mangroves (*Rhizophora apiculata*, *R. mucronata*) in response to climate and sea level fluctuations along coastal India. *Ecological Indicators*, 154. <https://doi.org/10.1016/j.ecolind.2023.110631>
- Sánchez-Artús, X., Gracia, V., Espino, M., Sierra, J. P., Pinyol, J., & Sánchez-Arcilla, A. (2023). Present and future flooding and erosion along the NW Spanish Mediterranean Coast. *Frontiers in Marine Science*, 10, 1125138. <https://doi.org/10.3389/FMARS.2023.1125138/BIBTEX>
- Sari, R., Marpaung, S. S. M., Has, D. H., & Daulay, A. P. (2023). Evaluation of Planting Success and Mangrove Habitat Suitability in Various Planting Years in Pasar Rawa Village, Langkat Regency. *Jurnal Biologi Tropis*, 23(4), 317–322. <https://doi.org/10.29303/jbt.v23i4.5620>
- Sari, S. P. (2009). Analisis Kondisi Mangrove di Pantai Timur Ogan Komering Ilir (OKI) Provinsi Sumatera Selatan Menggunakan Data CItra Landsat TM (The Analysis of Mangrove Density at the Ogan Komering Ilir (OKI) East Coast in the South Sumatera Province Using). *Sumber Daya Perairan*, 3(2), 13–17. <https://mail.journal.ubb.ac.id/akuatik/article/view/404>
- Savari, M., Damaneh, H. E., & Damaneh, H. E. (2024). Conservation behaviors of local communities towards mangrove forests in Iran. *Global Ecology and Conservation*, 56, e03311. <https://doi.org/https://doi.org/10.1016/j.gecco.2024.e03311>
- Serial, A. (2023). *Manual Pemulihan Ekosistem Mangrove* (S. Nurbaya & A. Dohong (Eds.)). Kementerian Lingkungan Hidup dan Kehutanan.
- Shalsabilla, A., Setiyono, H., Sugianto, D. N., Ismunarti, D. H., & Marwoto, J. (2022). Kajian Fluktuasi Muka Air Laut Sebagai Dampak dari Perubahan Iklim di Perairan Semarang. *Indonesian Journal of Oceanography*, 4(1), 69–76. <https://doi.org/10.14710/ijoce.v4i1.13183>
- Shaltout, K. H., Ahmed, M. T., Alrumanan, S. A., Ahmed, D. A., & Eid, E. M. (2020). Evaluation of the carbon sequestration capacity of arid mangroves along nutrient availability and salinity gradients along the Red Sea coastline

- of Saudi Arabia. *Oceanologia*, 62(1), 56–69. <https://doi.org/10.1016/j.oceano.2019.08.002>
- Simarmata, N., Wikantika, K., Tarigan, T. A., Aldyansyah, M., Tohir, R. K., Fauzi, A. I., & Fauzia, A. R. (2025). Comparison of random forest, gradient tree boosting, and classification and regression trees for mangrove cover change monitoring using Landsat imagery. *The Egyptian Journal of Remote Sensing and Space Sciences*, 28(1), 138–150. <https://doi.org/10.1016/J.EJRS.2025.02.002>
- Sobhani, P., & Danehkar, A. (2023). Environmental and Sustainability Indicators Spatial-temporal changes in mangrove Forests for Analyzing habitat Integrity : A case of hara biosphere Reserve , Iran. *Environmental and Sustainability Indicators*, 20(August), 100293. <https://doi.org/10.1016/j.indic.2023.100293>
- Sofue, Y., Quevedo, J. M. D., Lukman, K. M., & Kohsaka, R. (2025). Identifying changes in mangrove landscapes in the Philippines and Indonesia using remote sensing and community perceptions: Towards ecosystem services management. *Regional Studies in Marine Science*, 82, 104023. <https://doi.org/10.1016/J.RSMA.2025.104023>
- Suchayla Adiba, M., Tintin Yuningsih, E., Fatonah, A., Nursiyam Barkah, M., & Isnaniawardhani, V. (2021). Karakteristik Geomorfologi Dan Hubungannya Dengan Sebaran Litologi Daerah Cirawamekar Dan Sekitarnya, Kecamatan Cipatat, Kabupaten Bandung Barat. *Padjadjaran Geoscience Journal*, 5(1), 71–79.
- Sugiyono, P. D. (2013). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D*. Alfabeta. https://digilib.unigres.ac.id/index.php?p=show_detail&id=43
- Sun, S., Mu, L., Feng, R., Chen, Y., & Han, W. (2024). Quadtree decomposition-based Deep learning method for multiscale coastline extraction with high-resolution remote sensing imagery. *Science of Remote Sensing*, 9, 100112. <https://doi.org/https://doi.org/10.1016/j.srs.2023.100112>
- Sun, X., Zhang, L., Lu, S. Y., Tan, X. Y., Chen, K. L., Zhao, S. Q., & Huang, R. H. (2020). A new model for evaluating sustainable utilization of coastline integrating economic output and ecological impact: A case study of coastal areas in Beibu Gulf, China. *Journal of Cleaner Production*, 271, 122423. <https://doi.org/10.1016/J.JCLEPRO.2020.122423>
- Thakur, S., Maity, D., Mondal, I., Basumatary, G., Ghosh, P. B., Das, P., & De, T. K. (2021). Assessment of changes in land use, land cover, and land surface temperature in the mangrove forest of Sundarbans, northeast coast of India. *Environment, Development and Sustainability*, 23(2), 1917–1943. <https://doi.org/10.1007/S10668-020-00656-7/METRICS>
- Thoai, D. T., Dang, A. N., & Kim Oanh, N. T. (2019). Analysis of coastline change in relation to meteorological conditions and human activities in Ca mau cape,

- Viet Nam. *Ocean & Coastal Management*, 171, 56–65. <https://doi.org/10.1016/J.OCECOAMAN.2019.01.007>
- Thomson, T., Ellis, J. I., Fusi, M., Prinz, N., Lundquist, C. J., Bury, S. J., Shankar, U., Cary, S. C., & Pilditch, C. A. (2024). Effects of catchment land use on temperate mangrove forests. *Science of the Total Environment*, 940(May), 173579. <https://doi.org/10.1016/j.scitotenv.2024.173579>
- Tri Wulandari, M., Santoso, R., Studi DIII Akuntansi, P., Akumtansi, J., & Negeri Sriwijaya, P. (2022). Peranan Departement General Affrair dalam Pelayanan Operasional Perusahaan di PT Semen Baturaja (Persero) Tbk. *AT TARIIZ : Jurnal Ekonomi Dan Bisnis Islam*, 1(03), 121–131. <https://doi.org/10.62668/ATTARIIZ.V1I03.312>
- Tsai, L.-H., Wu, C.-H., Zhang, Q.-S., Shao, J.-C., Hsieh, C.-M., & Yang, C.-H. (2025). Shoreline change prediction along the Cijin coastline of Taiwan using deep learning and satellite imagery. *Engineering Applications of Artificial Intelligence*, 143, 110039. <https://doi.org/10.1016/J.ENGAPPAL.2025.110039>
- Tsai, Y. S., & Tseng, K. (2023). International Journal of Applied Earth Observation and Geoinformation Monitoring multidecadal coastline change and reconstructing tidal flat topography. *International Journal of Applied Earth Observation and Geoinformation*, 118(December 2022), 103260. <https://doi.org/10.1016/j.jag.2023.103260>
- U.S. Geological Survey. (2019). Landsat 8 Data Users Handbook. *Nasa*, 8(November), 114. <https://landsat.usgs.gov/documents/Landsat8DataUsersHandbook.pdf>
- Ülger, M., & Tanrıvermiş, Y. (2023). Prevention of the effects of coastal structures on shoreline change using numerical modeling. *Ocean & Coastal Management*, 243, 106752. <https://doi.org/10.1016/J.OCECOAMAN.2023.106752>
- USGS. (2011). Accuracy Standards. *The Student Evaluation Standards*, 125–208. <https://doi.org/10.4135/9781412990097.d13>
- Utomo, B., & Septinar, H. (2022). Analysis of Land Cover Change in The Mangrove Forest in Air Telang Protected Forest Area, Banyuasin Regency, Indonesia. *Majalah Ilmiah Globe*, 24(2), 91–98.
- Van Bijsterveldt, C. E. J., Van der Wal, D., Mancheño, A. G., Fivash, G. S., Helmi, M., & Bouma, T. J. (2023). Can cheniers protect mangroves along eroding coastlines? – The effect of contrasting foreshore types on mangrove stability. *Ecological Engineering*, 187, 106863. <https://doi.org/10.1016/J.ECOLENG.2022.106863>
- Wei, S., Lin, Y., Wan, L., Lin, G., Zhang, Y., & Zhang, H. (2021). Developing a grid-based association rules mining approach to quantify the impacts of urbanization on the spatial extent of mangroves in China. *International*

- Journal of Applied Earth Observation and Geoinformation*, 102, 102431. <https://doi.org/10.1016/J.JAG.2021.102431>
- Widyaningtias, W., Bumi, I. S., Nugroho, J., Adityawan, M. B., & Kuntoro, A. A. (2021). Struktur Berpori Sebagai Upaya Penanggulangan Erosi di Pantai Utara Jawa (Studi Kasus Pantai Demak, Jawa Tengah). *Jurnal Teknik Sipil*, 28(3), 319–328. <https://doi.org/10.5614/JTS.2021.28.3.9>
- Xu, M., Wang, Z., Liang, Y., Mo, Z., & Zhang, Q. (2024). Analysis of spatiotemporal evolution characteristics and recovery patterns of mangrove forests in China since 1978. *Ecological Indicators*, 169, 112882. <https://doi.org/10.1016/J.ECOLIND.2024.112882>
- Yan, J., Miao, C., Su, F., & Zhao, Y. (2024). Association mining of coastline change and land use patterns to enhance conservation. *Ecological Informatics*, 80, 102544. <https://doi.org/10.1016/J.ECOINF.2024.102544>
- Yang, X., Zhu, Z., Kroeger, K. D., Qiu, S., Covington, S., Conrad, J. R., & Zhu, Z. (2024). Tracking mangrove condition changes using dense Landsat time series. *Remote Sensing of Environment*, 315(June), 114461. <https://doi.org/10.1016/j.rse.2024.114461>
- Yusuf, D., Lahay, R. J., Thalib, H. Z., Zainuri, A., Faridawaty, W. O., Utina, R., Baderan, D. W., & Hasim, H. (2024). Analisis Perubahan Alih Fungsi Lahan Mangrove Di Binuang Bolaang Mongondow Utara. *Journal Bionatural*, 11(1), 67–73.
- Zamboni, N. S., Matos, M. de F. A. de, Amaro, V. E., Cunha Prudêncio, M. da, & Carvalho, A. R. (2025). Impacts of land use change on mangrove blue carbon services: A future perspective in northeastern Brazil. *Estuarine, Coastal and Shelf Science*, 317, 109185. <https://doi.org/10.1016/J.ECSS.2025.109185>
- Zega, A., Telaumbanua, B. V., Laoli, D., & Zebua, R. D. (2023). Physical Water Quality Parameters In Boyo River Onowaembo Village, Gunungsitoli Subdistrict, Gunungsitoli City. *JURNAL PERIKANAN TROPIS*, 10(2), 43–52. <https://doi.org/10.35308/JPT.V10I2.7355>
- Zhai, J., Pu, L., Qie, L., He, G., Wang, X., Zhang, R., Yuan, Y., Zhong, R., Lu, Y., Xie, J., Tao, J., & Huang, S. (2025). Changes of land use and landscape pattern along sea–land gradient in developed coastal region: A case study of Jiangsu Province, China. *Ecological Indicators*, 176, 113635. <https://doi.org/10.1016/J.ECOLIND.2025.113635>
- Zhang, G., Zhang, G., Xing, S., Xu, Q., Xu, Q., Guo, S., Gao, M., Chen, L., & Wang, D. (2023). Automatic land-sea classification in a nearshore environment using satellite-based photon-counting LiDAR data. *Optics Express*, Vol. 31, Issue 2, Pp. 2492-2507, 31(2), 2492–2507. <https://doi.org/10.1364/OE.479449>
- Zhang, L., Zhang, M., & Wang, Q. (2023). Monitoring of subpixel impervious

- surface dynamics using seasonal time series Landsat 8 OLI imagery. *Ecological Indicators*, 154, 110772. <https://doi.org/10.1016/J.ECOLIND.2023.110772>
- Zhang, T., Liu, H., Lu, Y., Wang, Q., Loh, Y. C., & Li, Z. (2024). Impact Of Climate Change On Coastal Ecosystem And Outdoor Activities: A Comparative Analysis Among Four Largest Coastline Covering Countries. *Environmental Research*, 250, 118405. <https://doi.org/10.1016/J.ENVRES.2024.118405>
- Zhu, B., Liao, J., & Shen, G. (2021). Combining time series and land cover data for analyzing spatio-temporal changes in mangrove forests : A case study of Qinglangang Nature Reserve ,. *Ecological Indicators*, 131, 108135. <https://doi.org/10.1016/j.ecolind.2021.108135>
- Zhu, J.-J., & Yan, B. (2022). Blue carbon sink function and carbon neutrality potential of mangroves. *Science of The Total Environment*, 822, 153438. <https://doi.org/https://doi.org/10.1016/j.scitotenv.2022.153438>
- Zhuang, L., Huang, L., Zhao, C., Zheng, G., Tang, W., Zhou, D., & Zhu, J. (2024). Identification and assessment of the mudflat ecological vulnerability dominated by coastline evolution in Jiangsu. *Ecological Indicators*, 168, 112761. <https://doi.org/https://doi.org/10.1016/j.ecolind.2024.112761>