DAFTAR PUSTAKA

Achanta, R., & Süsstrunk, S. (2017). *Superpixels and Polygons Using Simple Non-Iterative Clustering*. 4651–4660. https://doi.org/10.1109/CVPR.2017.520

Ahamed, T., Tian, L., Zhang, Y., & Ting, K. C. (2011). A review of remote sensing methods for biomass feedstock production. *Biomass & Bioenergy*, *35*(7), 2455–2469.

Alam, M. I. F., Nuarsa, I. W., & Puspitha, N. L. P. R. (2020). Uji Akurasi Beberapa Indeks Vegetasi dalam Mengestimasi Kerapatan Hutan Mangrove dengan Citra Sentinel-2A di Taman Nasional Bali Barat. *Journal of Marine Research and Technology*, *3*, 59–67.

Alongi, D. M. (2012). Carbon sequestration in mangrove forests. *Carbon Management*, *3*(3), 313–322. https://doi.org/10.4155/cmt.12.20

Altman, D. G. (1999). *Practical Statistics for Medical Research*. NY: Chapman & Hall/CRC Press.

Analuddin, K., Kadidae, L. O., Yasir Haya, L. O. M., Septiana, A., Sahidin, I., Syahrir, L., Rahim, S., Fajar, L. O. A., & Nadaoka, K. (2020). Aboveground Biomass, Productivity and Carbon Sequestration in Rhizophora stylosa Mangrove Forest of Southeast Sulawesi, Indonesia. *Biodiversitas*, *21*(4), 1316–1325. https://doi.org/10.13057/biodiv/d210407

Analuddin, K., Sharma, S., Jamili, J., Septiana, A., Sahidin, I., Rianse, U., Rahim, S., & Nadaoka, K. (2018). Trends in allometric models and aboveground biomass of family Rhizophoraceae mangroves in the Coral Triangle ecoregion, Southeast Sulawesi, Indonesia. *Journal of Sustainable Forestry*, *37*(7), 691–711. https://doi.org/10.1080/10549811.2018.1453843

Anwar, A. (2009). *Statistika Untuk Penelitian Pendidikan Dan Aplikasinya Dengan SPSS Dan Excel*. IAIT Press.

Badan Informasi Geospasial. (2014). *Pedoman Teknis Pengumpulan Dan Pengolahan Data Geospasial Mangrove*. Peraturan Kepala Badan Informasi Geospasial Nomor 3 Tahun 2014.

Badan Standardisasi Nasional. (2011). *Pengukuran dan penghitungan cadangan karbon-Pengukuran lapangan untuk penaksiran cadangan karbon hutan (ground based forest carbon accounting)* (Patent SNI 7724:2011). www.bsn.go.id

Badan Standardisasi Nasional. (2020). *Spesifikasi Informasi Geospasial - Mangrove Skala 1:25.000 dan 1:50.000* (Patent SNI 7717:2020).

Chauhan, A. (2021, Februari 24). *Random Forest Classifier and its Hyperparameters*. Medium. https://medium.com/analytics-vidhya/random-forest-classifier-and-its-hyperparameters-8467bec755f6

Chua, L. S. L. (1998). Avicennia L. Dalam M. S. M. Sosef, L. T. Hong, & S. Prawirohatmodjo (Ed.), *Plant Resources of South-East Asia*. PROSEA Foundation.

Crippen, R. E. (1990). Calculating the vegetation index faster. *Remote Sensing of Environment*, *34*, 71–73.

David, R. M., Rosser, N. J., & Donoghue, D. N. M. (2022). Improving above ground biomass estimates of Southern Africa dryland forests by combining Sentinel-1 SAR and Sentinel-2 multispectral imagery. *Remote Sensing of Environment*, *282*. https://doi.org/10.1016/j.rse.2022.113232

Davis, D. S. (2019). Object-based image analysis: a review of developments and future directions of automated feature detection in landscape archaeology. *Archaeological Prospection*, *26*(2), 155–163. https://doi.org/10.1002/arp.1730

Departemen Kehutanan Direktorat Jenderal Rehabilitasi Lahan Dan Perhutanan Sosial. (2005). *PEDOMAN INVENTARISASI DAN IDENTIFIKASI LAHAN KRITIS MANGROVE*.

Dharmawan, I. W. S., & Siregar, C. A. (2008). Karbon Tanah dan Pendugaan Karbon Tegakan Avicennia marina (Forsk.) Vierh. di Ciasem, Purwakarta. *Jurnal Penelitian Hutan dan Konservasi Alam*, *5*(4), 317–328. https://doi.org/10.20886/jphka.2008.5.4.317-328

El Abdy, M. (2024). *'Ditentang warga hingga dianggap gila' – Perjuangan Slaman Ubah Lahan Bakau Kritis di Pesisir Madura Jadi Ekowisata*. BBC News Indonesia. https://www.bbc.com/indonesia/articles/cv2r62jxxy2o

Fourqurean, J., Johnson, B., Kauffman, J. B., Kennedy, H., Lovelock, C., Megonigal, J. P., Rahman, A., Saintilan, N., & Simard, M. (2014). *Coastal Blue CarBon methods for assessing carbon stocks and emissions factors in mangroves, tidal salt marshes, and seagrass meadows* (J. Howard, S. Hoyt, K. Isensee, E. Pidgeon, & M. Telszewski, Ed.). www.ioc.unesco.org

Govaerts, B., & Verhulst, N. (2010). *The normalized difference vegetation index (NDVI) GreenSeeker TM handheld sensor: Toward the integrated evaluation of crop management, Part A: Concepts and case studies*. CIMMYT.

Gupta, K., Mukhopadhyay, A., Giri, S., Chanda, A., Datta Majundar, S., Samanta, S., & Hazra, S. (2018). An Index for discrimination of mangroves from non-mangroves using LANDSAT 8 OLI imagery. *MethodsX*.

Hasidu, L. O. A. F., Prasetya, A., Maharani, Syaiful, M., & Analuddin, K. (2022). Allometric Model, Aboveground Biomass and Carbon Sequestration of Natural Regeneration of Avicennia lanata (Ridley). at in-active Pond of Muna Regency, Southeast Sulawesi. *HAYATI Journal of Biosciences*, *29*(3), 399–408. https://doi.org/10.4308/hjb.29.3.399-408

Huete, A., Didan, K., van Leeuwen, W., Miura, T., & Glenn, E. (2011). MODIS vegetation indices. Dalam *Remote Sensing and Digital Image Processing* (Vol. 11, hlm. 579–602). Springer International Publishing. https://doi.org/10.1007/978-1-4419-6749-7_26

Huete, A. R. (1988). A soil-adjusted vegetation index (SAVI). *Remote Sensing of Environment*, *25*, 195–309.

IPCC. (2008). *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. IGES.

James, G., Witten, D., Hastie, T., & Tibshirani, R. (2021). *An Introduction to Statistical Learning with Applications in R* (2nd ed.). Springer.

Kamal, M., Hartono, H., Wicaksono, P., Adi, N. S., & Arjasakusuma, S. (2016). ASSESSMENT OF MANGROVE FOREST DEGRADATION THROUGH CANOPY FRACTIONAL COVER IN KARIMUNJAWA ISLAND, CENTRAL JAVA, INDONESIA. *Geoplanning: Journal of Geomatics and Planning*, *3*(2), 107. https://doi.org/10.14710/geoplanning.3.2.107-116

Karang, I. W. G. A., Nuarsa, I. W., Hendrawan, I. G., Dewi, N. M. N. B. S., Yasa, P. K., & Krisnanda, I. M. D. (2024). Satellite remote sensing techniques for mapping and estimating mangrove carbon stocks in the small island of Gili Meno, West Nusa Tenggara, Indonesia. *Biodiversitas*, *25*(9), 3189–3200. https://doi.org/10.13057/biodiv/d250941

Kauffman, J. B., & Cole, T. G. (2010). Micronesian Mangrove Forest Structure and Tree Responses to a Severe Typhoon. *Wetlands*, *30*(6), 1077–1084. https://doi.org/10.1007/s13157-010-0114-y

Kementerian Kehutanan. (2025). *Keputusan Menteri Kehutanan Republik Indonesia No.594 tentang Peta Mangrove Nasional Tahun 2024*.

Komiyama, A., Poungparn, S., & Kato, S. (2005). Common allometric equations for estimating the tree weight of mangroves. *Journal of Tropical Ecology*, *21*(4), 471–477. https://doi.org/10.1017/S0266467405002476

Krisnawati, H., Adinugroho, W. C., & Imanuddin, R. (2012). *Monograf: Model-Model Alometrik Untuk Pendugaan Biomassa Pohon Pada Berbagai Tipe Ekosistem Hutan di Indonesia*. Pusat Penelitian dan Pengembangan Konservasi dan Rehabilitasi. https://doi.org/10.13140/RG.2.1.3090.6405

Kurniawati, W., Made Yuliara, I., Nyoman Ratini, N., & Windarjoto. (2022). Pengenalan Pola Reflektansi Spektral Di Teluk Benoa Sebagai Indikator Perubahan Kerapatan Mangrove Berbasis Citra Landsat 8. *Buletin Fisika*, *23*(1), 51.

Lee, G., Hwang, J., & Cho, S. (2021). A novel index to detect vegetation in urban areas using uav-based multispectral images. *Applied Sciences*, *11*(8). https://doi.org/10.3390/app11083472

Lillesand, T. M., Kiefer, R. W., & Chipman, J. W. (2015). *REMOTE SENSING AND IMAGE INTERPRETATION Seventh Edition* (7 ed.). Wiley.

Louppe, D., Oteng-Amoako, A. A., & Brink, M. (2008). *Plant Resources of Tropical Africa*. Timbers 1.

Malik, A., Sideng, U., & Jaelani. (2022). Biomass Carbon Stock Assessment of Mangrove Ecosystem in Pannikiang Island South Sulawesi Indonesia. *Indonesian Journal of Geography*, *54*(1), 11–19. https://doi.org/10.22146/ijg.46989

Manuri, S., Putra, C. A. S., & Saputra, A. D. (2011). *Tehnik Pendugaan Cadangan Karbon Hutan*. Merang REDD Pilot Project, German International Cooperation - GIZ. https://doi.org/10.13140/2.1.1569.0240

Matsushita, B., Yang, W., Chen, J., Onda, Y., & Qiu, G. (2007). Sensitivity of the Enhanced Vegetation Index (EVI) and Normalized Difference Vegetation Index (NDVI) to Topographic Effects: A Case Study in High-Density Cypress Forest. *Sensors*, *7*, 2636–2651. www.mdpi.org/sensors

Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, *22*(1), 67–72. https://doi.org/10.4103/aca.ACA_157_18

Mohd Razali, N., & Bee Wah, Y. (2011). Power comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling tests. *Journal of Statistical Modeling and Analytics*, *2*, 21–33.

Montgomery, D. C., Peck, E. A., & Vining, G. G. (2012). *Introduction to Linear Regression Analysis* (5 ed.). John Wiley & Sons, Inc.

Nguyen, H. H., Vu, H. D., & Röder, A. (2021). Estimation of above-ground mangrove biomass using landsat-8 data-derived vegetation indices: A case study in quang ninh province, Vietnam. *Forest and Society*, *5*(2), 506–525. https://doi.org/10.24259/fs.v5i2.13755

Nuryadi, Astuti, T. D., Utami, E. S., & Budiantara, M. (2017). *DASAR-DASAR STATISTIK PENELITIAN* (1 ed.). SIBUKU MEDIA. www.sibuku.com

Paiman. (2019). *Teknik Analisis Korelasi dan Regresi Ilmu-Ilmu Pertanian*. UPY Press.

Planet Labs. (2023). *PlanetScope Product Specifications*.

Purnamasari, E., Kamal, M., & Wicaksono, P. (2021). Comparison of vegetation indices for estimating above-ground mangrove carbon stocks using PlanetScope image. *Regional Studies in Marine Science*, *44*. https://doi.org/10.1016/j.rsma.2021.101730

Purnamasari, E., Kamal, M., Wicaksono, P., Faqih Hidayatullah, M., & Susetyo, B. B. (2024). Multi-spatial Resolution Imagery to Estimate Above-Ground Carbon

Stocks in Mangrove Forests. *International Journal on Infromatics Visualization*, 1118–1125. www.joiv.org/index.php/joiv

Purwanto, A. D., Wikantika, K., Deliar, A., & Darmawan, S. (2023). Decision Tree and Random Forest Classification Algorithms for Mangrove Forest Mapping in Sembilang National Park, Indonesia. *Remote Sensing*, *15*(1). https://doi.org/10.3390/rs15010016

Puspa, A. (2021). *Mangrove Serap Karbon 5 Kali Lebih Banyak dari Hutan Tropis*. https://mediaindonesia.com/humaniora/439107/mangrove-serap-karbon-5-kali-lebih-banyak-dari-hutan-tropis#goog_rewarded

Rahmandhana, A. D., Kamal, M., & Wicaksono, P. (2022). Spectral Reflectance-Based Mangrove Species Mapping from WorldView-2 Imagery of Karimunjawa and Kemujan Island, Central Java Province, Indonesia. *Remote Sensing*, *14*(1). https://doi.org/10.3390/rs14010183

Rouse, J. W., Haas, R. H., Schell, J. A., & Deering, D. W. (1974). Monitoring vegetation systems in the great plains with ERTS proceeding. *Third earth reserves technology satellite symposium, greenbelt: NASA SP-351*, *30103017*, 317.

Sidik, F., Kusuma, D. W., Kadarisman, H. P., & Suhardjono. (2019). *Panduan Mangrove: Survei Ekologi dan Pemetaan* (1 ed.). Balai Riset dan Observasi Laut, BRSDM-KKP. https://www.researchgate.net/publication/339550532

Sims, D. A., & Gamon, J. A. (2002). Relationships between leaf pigment content and spectral reflectance across a wide range of species, leaf structures and developmental stages. *Remote Sensing of Environment*, *81*(2–3), 337–354. https://doi.org/10.1016/S0034-4257(02)00010-X

Son, H. T., Hoa, N. H., & Truong, V. Van. (2023). MANGROVE COVER-BASED VEGETATION INDICES MAPPING USING PLANETSCOPE DATA IN TIEN YEN DISTRICT QUANG NINH PROVINCE. *Journal of Forestry Science and Technology*, *15*, 127–138. https://doi.org/10.55250/jo.vnuf.2023.15.127-138

Suardana, A. A. M. A. P., Anggraini, N., Nandika, M. R., Aziz, K., As-Syakur, A. R., Ulfa, A., Wijaya, A. D., Prasetio, W., Winarso, G., & Dimyati, R. D. (2023). Estimation and Mapping Above-Ground Mangrove Carbon Stock Using Sentinel-2 Data

Derived Vegetation Indices in Benoa Bay of Bali Province, Indonesia. *Forest and Society*, *7*(1), 116–134. https://doi.org/10.24259/fs.v7i1.22062

Swoish, M., Da Cunha Leme Filho, J. F., Reiter, M. S., Campbell, J. B., & Thomason, W. E. (2022). Comparing satellites and vegetation indices for cover crop biomass estimation. *Computers and Electronics in Agriculture*, *196*. https://doi.org/10.1016/j.compag.2022.106900

Tassi, A., & Vizzari, M. (2020). Object-oriented lulc classification in google earth engine combining snic, glcm, and machine learning algorithms. *Remote Sensing*, *12*(22), 1–17. https://doi.org/10.3390/rs12223776

Wang, F. M., Huang, J. F., Tang, Y. L., & Wang, X. Z. (2007). New vegetation index and its application in estimating leaf area index of rice. *Rice Sci*, *14*, 195–203.

Watts, V. (2022). *Introduction to Statistics: An Excel-Based Approach*. Fanshawe College Pressbooks.

Xi, E. (2022). Image Classification and Recognition Based on Deep Learning and Random Forest Algorithm. *Wireless Communications and Mobile Computing*, *2022*. https://doi.org/10.1155/2022/2013181

Xiaoxia, S., Jixian, Z., & Zhengjun, L. (2004). A COMPARISON OF OBJECT-ORIENTED AND PIXEL-BASED CLASSIFICATION APPROACHS USING QUICKBIRD IMAGERY. *Chinese Academy of Surveiying and Mapping*, 1–3.

Yu, Q., Gong, P., Clinton, N., Biging, G., Kelly, M., & Schirokauer, D. (2006). Object-based detailed vegetation classification with airborne high spatial resolution remote sensing imagery. *Photogrammetric Engineering and Remote Sensing*, *72*(7), 799–811. https://doi.org/10.14358/PERS.72.7.799

Yunia Ramba, F., Wirasatriya, A., & Yulianto, B. (2021). Recent update of mangrove carbon-stock estimation using vegetation index analysis at Youtefa Bay, Jayapura, Papua, Indonesia. *Ecology Environment and Conservation*, S57–S65.

Zhou, W., Troy, A., & Grove, M. (2008). Object-based Land Cover Classification and Change Analysis in the Baltimore Metropolitan Area Using Multitemporal High Resolution Remote Sensing Data. *Sensors*, *8*, 1613–1636.