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DAFTAR PUSTAKA

Adzima, A. F., Setiawan, M. A., & Mardiatno, D. (2019). Karakteristik Tanah HAHT (Human Altered-Human Transported) di Area Perdesaan Terhadap Kelestarian Lingkungan (Characteristics of HAHT (Human Altered-Human Transported) Soil in Rural Areas for Environmental Sustainability). *Jurnal Sains Informasi Geografi*, *2*(2), 32. https://doi.org/10.31314/jsig.v2i2.373

Aghhavani Shajari, M., Rezvani Moghaddam, P., Ghorbani, R., & Koocheki, A. (2020). The possibility of improving saffron (Crocus sativus L.) flower and corm yield through the irrigation and soil texture managements. *Scientia Horticulturae*, *271*, 109485. https://doi.org/10.1016/j.scienta.2020.109485

Ågren, A. M., Larson, J., Paul, S. S., Laudon, H., & Lidberg, W. (2021). Use of multiple LIDAR-derived digital terrain indices and machine learning for high-resolution national-scale soil moisture mapping of the Swedish forest landscape. *Geoderma*, *404*, 115280. https://doi.org/10.1016/j.geoderma.2021.115280

Ågren, A. M., Lidberg, W., Strömgren, M., Ogilvie, J., & Arp, P. A. (2014). Evaluating digital terrain indices for soil wetness mapping – a Swedish case study. *Hydrology and Earth System Sciences*, *18*(9), 3623–3634. https://doi.org/10.5194/hess-18-3623-2014

Akhtman, Y. (2023, October 2). *Sentinel-2 Deep Resolution 3.0*. Medium.

Breiman, L. (2001). Random Forests. Machine Learning. *Machine Learning*, *45*(1), 5–32. https://doi.org/10.1023/A:1010933404324

Cahyana, D., Sulaeman, Y., Barus, B., Darmawan, & Mulyanto, B. (2023). Improving digital soil mapping in Bogor, Indonesia using parent material information. *Geoderma Regional*, *33*, e00627. https://doi.org/10.1016/j.geodrs.2023.e00627

Capra, G. F., Vacca, S., Cabula, E., Grilli, E., & Buondonno, A. (2012). Human-Altered and Human-Transported Soils in an Italian Industrial District. *Soil Science Society of America Journal*, *76*(5), 1828–1841. https://doi.org/10.2136/sssaj2011.0384

Carlson, D. H., C.C. Plummer, & L. Hammersley. (2009). *Physical geology: Earth revealed. 9th Ed* (9th ed.). McGraw Hill.

CDSE. (2016). *A European wide-swath, high-resolution, multi-spectral imaging mission*. Copernicus Data Space Ecosysem .

Cesmeli, M. S. (2025). Increasing the prediction efficacy of the thermodynamic properties of R515B refrigerant with machine learning algorithms using SMOGN

UNIVERSITAS
GADJAH MADA
Evaluasi Pendekatan SCORPAN dalam Prediksi Spasial Fraksi Tekstur Tanah pada Bahan Induk Hasil Proses Alterasi di Sub-DAS Bompon
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

data augmentation method. *International Journal of Refrigeration*, *179*, 44–59. https://doi.org/10.1016/j.ijrefrig.2025.07.026

Chandra, A. (2016). *Penentuan Tekstur Tanah dengan Metode Hidrometer dan Pipet pada Tipe Lahan Kering dan Basah*.

Chanev, M., Kamenova, I., Dimitrov, P., & Filchev, L. (2025). Evaluation of Sentinel-2 Deep Resolution 3.0 Data for Winter Crop Identification and Organic Barley Yield Prediction. *Remote Sensing*, *17*(6), 957. https://doi.org/10.3390/rs17060957

Chattaraj, S., Daripa, A., Reza, S. K., Ghosh, B. N., Majhi, S., Mallick, D., Paul, S., Dey, S., & Rahman, F. H. (2025a). Soil texture and lithological discontinuity mapping for sustainable land use planning: An application of digital soil mapping in a part of Eastern Himalayan Foothills, India. *CATENA*, *258*, 109253. https://doi.org/10.1016/j.catena.2025.109253

Chattaraj, S., Daripa, A., Reza, S. K., Ghosh, B. N., Majhi, S., Mallick, D., Paul, S., Dey, S., & Rahman, F. H. (2025b). Soil texture and lithological discontinuity mapping for sustainable land use planning: An application of digital soil mapping in a part of Eastern Himalayan Foothills, India. *CATENA*, *258*, 109253. https://doi.org/10.1016/j.catena.2025.109253

Chen, L., Wang, J., Wang, H., Xu, F., Song, P., Yang, C., & Li, J. (2022). Variation in soil detachment capacity of structural and sedimentary crusts induced by simulated rainfall formed on ridge and furrow. *CATENA*, *211*, 105971. https://doi.org/10.1016/j.catena.2021.105971

Christanto, N. (2008). *Hydrological-Slope Stability Modelling for Landslide Hazard Assesment by Means of GIS and Remote Sensing Data a Case Study of Probolo Sub-Catchments, Gesing Sub-District Purworejo Regency, Indonesia*. Universitas Gadjah Mada.

Clark, C. A. (2020). *The important role of soil texture on water*. Crops and Soils Division of Extension.

Cremon, É. H., Pereira, A. C., Paula, L. D. L. de, & Nunes, E. D. (2021). Geological and terrain attributes for predicting soil classes using pixel- and geographic object-based image analysis in the Brazilian Cerrado. *Geoderma*, *401*, 115315. https://doi.org/10.1016/j.geoderma.2021.115315

da Silva, A. F., Pereira, M. J., Carneiro, J. D., Zimback, C. R. L., Landim, P. M. B., & Soares, A. (2014). A new approach to soil classification mapping based on the

UNIVERSITAS
GADJAH MADA
Evaluasi Pendekatan SCORPAN dalam Prediksi Spasial Fraksi Tekstur Tanah pada Bahan Induk Hasil Proses Alterasi di Sub-DAS Bompon
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

spatial distribution of soil properties. *Geoderma*, *219–220*, 106–116. https://doi.org/10.1016/j.geoderma.2013.12.011

Dehnavi, A., Aghdam, I. N., Pradhan, B., & Morshed Varzandeh, M. H. (2015). A new hybrid model using step-wise weight assessment ratio analysis (SWARA) technique and adaptive neuro-fuzzy inference system (ANFIS) for regional landslide hazard assessment in Iran. *CATENA*, *135*, 122–148. https://doi.org/10.1016/j.catena.2015.07.020

Dindaroğlu, T., Kılıç, M., Günal, E., Gündoğan, R., Akay, A. E., & Seleiman, M. (2022). Multispectral UAV and satellite images for digital soil modeling with gradient descent boosting and artificial neural network. *Earth Science Informatics*, *15*(4), 2239–2263. https://doi.org/10.1007/s12145-022-00876-7

ESA. (2024). *Introducing Sentinel-2*. European Space Agency.

Fan, B., Tao, W., Qin, G., Hopkins, I., Zhang, Y., Wang, Q., Lin, H., & Guo, L. (2020). Soil micro-climate variation in relation to slope aspect, position, and curvature in a forested catchment. *Agricultural and Forest Meteorology*, *290*, 107999. https://doi.org/10.1016/j.agrformet.2020.107999

Farhadur Rahman, Md., Onoda, Y., & Kitajima, K. (2022). Forest canopy height variation in relation to topography and forest types in central Japan with LiDAR. *Forest Ecology and Management*, *503*, 119792. https://doi.org/10.1016/j.foreco.2021.119792

Febriyana, R. D., Aribowo, Y., & Widiarso, D. A. (n.d.). *Geologi dan Alterasi Hidrotermal Daerah Bantar Karet dan Sekitarnya, Kecamatan Nanggung, Kabupaten Bogor, Provinsi Jawa Barat*.

Goetz, J. N., Guthrie, R. H., & Brenning, A. (2011). Integrating physical and empirical landslide susceptibility models using generalized additive models. *Geomorphology*, *129*(3–4), 376–386. https://doi.org/10.1016/j.geomorph.2011.03.001

Greve, M. H., Kheir, R. B., Greve, M. B., & Bøcher, P. K. (2012). Quantifying the ability of environmental parameters to predict soil texture fractions using regression-tree model with GIS and LIDAR data: The case study of Denmark. *Ecological Indicators*, *18*, 1–10. https://doi.org/10.1016/j.ecolind.2011.10.006

Heung, B., Saurette, D., & Bulmer, C. E. (2021). Digital Soil Mapping. In *Digging Into Canadian Soils: An Introduction to Soil Science* (17). Canadian Society of Soil Science.

UNIVERSITAS
GADJAH MADA
**Evaluasi Pendekatan SCORPAN dalam Prediksi Spasial Fraksi Tekstur Tanah pada Bahan Induk Hasil
Proses Alterasi di Sub-DAS Bompon**
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Hong, Y., Yu, L., Chen, Y., Liu, Y., Liu, Y., Liu, Y., & Cheng, H. (2017). Prediction of Soil Organic Matter by VIS–NIR Spectroscopy Using Normalized Soil Moisture Index as a Proxy of Soil Moisture. *Remote Sensing*, *10*(1), 28. https://doi.org/10.3390/rs10010028

Hosseinpour-Zarnaq, M., Omid, M., Sarmadian, F., Ghasemi-Mobtaker, H., Alimardani, R., & Bohlol, P. (2025). Exploring the capabilities of hyperspectral remote sensing for soil texture evaluation. *Ecological Informatics*, *90*, 103336. https://doi.org/10.1016/j.ecoinf.2025.103336

Indradewa, D. (2021). *Etnoagronomi Indonesia* (I). Lily Publisher.

Jarvis, N. (2020). Reflection on Jarvis (2007), “Review of non-equilibrium water flow and solute transport in soil macropores: Principles, controlling factors and consequences for water quality”. European Journal of Soil Science, 58, 523–546. *European Journal of Soil Science*, *71*(3), 303–307. https://doi.org/10.1111/ejss.12914

Jenny, H. (1941). *Factors of Soil Formation: A System of Quantitative Pedology*. McGraw-Hill.

Karchegani, P. M., Ayoubi, S., Lu, S. G., & Honarju, N. (2011). Use of magnetic measures to assess soil redistribution following deforestation in hilly region. *Journal of Applied Geophysics*, *75*(2), 227–236. https://doi.org/10.1016/j.jappgeo.2011.07.017

Kaya, F., Başayiğit, L., Keshavarzi, A., & Francaviglia, R. (2022). Digital mapping for soil texture class prediction in northwestern Türkiye by different machine learning algorithms. *Geoderma Regional*, *31*, e00584. https://doi.org/10.1016/j.geodrs.2022.e00584

Khalighi, A., Hojjati, Y., Babalar, M., & Naderi, R. (2006). Effects of cytocinin nutrient treatment and soil texture on quality and quantity Characteristic of onion and scallion in Darwin Hybrid Tulip, Apeldoorn figure. *Agronomy Journal in Agriculture and Gardening*, *73*, 58–64.

Kironoto, B. Agus., Yulistiyanto, Bambang., & Olii, M. Ramdhan. (2020). *Erosi dan Konservasi Lahan*. Gadjah Mada University Press.

Kroll, R. (2025). *LIDAR for surveying drones: Functionality, advantages and disadvantages*. Airclip.

Lam, N., Huynh, H., Niculescu, S., Nguyen, Q., & Nguyen Vo Chau, N. (2023). *A Random Forest Approach for Evaluating Forest Cover Changes Outside Dikes with Sentinel Images*.

UNIVERSITAS GADJAH MADA
Evaluasi Pendekatan SCORPAN dalam Prediksi Spasial Fraksi Tekstur Tanah pada Bahan Induk Hasil Proses Alterasi di Sub-DAS Bompon
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Liu, J., Munnaf, M. A., Pätzold, S., & Mouazen, A. M. (2026). A dataset-based statistical comparison of gamma-ray and visible-near-infrared sensors for soil texture prediction with ensemble learning. *Computers and Electronics in Agriculture*, *241*, 111326. https://doi.org/10.1016/j.compag.2025.111326

Loiseau, T., Chen, S., Mulder, V. L., Román Dobarco, M., Richer-de-Forges, A. C., Lehmann, S., Bourennane, H., Saby, N. P. A., Martin, M. P., Vaudour, E., Gomez, C., Lagacherie, P., & Arrouays, D. (2019). Satellite data integration for soil clay content modelling at a national scale. *International Journal of Applied Earth Observation and Geoinformation*, *82*, 101905. https://doi.org/10.1016/j.jag.2019.101905

Loiseau, T., Richer-de-Forges, A. C., Martelet, G., Bialkowski, A., Nehlig, P., & Arrouays, D. (2020). Could airborne gamma-spectrometric data replace lithological maps as co-variates for digital soil mapping of topsoil particle-size distribution? A case study in Western France. *Geoderma Regional*, *22*, e00295. https://doi.org/10.1016/j.geodrs.2020.e00295

Lu, Q., Tian, S., & Wei, L. (2023). Digital mapping of soil pH and carbonates at the European scale using environmental variables and machine learning. *Science of The Total Environment*, *856*, 159171. https://doi.org/10.1016/j.scitotenv.2022.159171

Malik, R. F. (2017). *Pemetaan Geomorfologi Detail Menggunakan Teknik Step-Wise-Grid Di Daerah Aliran Sungai (DAS) Bompon Kabupaten Magelang, Jawa Tengah*. Universitas Gadjah Mada.

Mashalaba, L., Galleguillos, M., Seguel, O., & Poblete-Olivares, J. (2020). Predicting spatial variability of selected soil properties using digital soil mapping in a rainfed vineyard of central Chile. *Geoderma Regional*, *22*, e00289. https://doi.org/10.1016/j.geodrs.2020.e00289

McBratney, A. B., Mendonça Santos, M. L., & Minasny, B. (2003). On digital soil mapping. *Geoderma*, *117*(1–2), 3–52. https://doi.org/10.1016/S0016-7061(03)00223-4

Meinshausen, N. (2006). Quantile Regression Forests. In *Journal of Machine Learning Research* (Vol. 7).

Mgohele, R. N., Massawe, B. H. J., Shitindi, M. J., Sanga, H. G., & Omar, M. M. (2024a). Prediction of soil texture using remote sensing data. A systematic review. *Frontiers in Remote Sensing*, *5*. https://doi.org/10.3389/frsen.2024.1461537

UNIVERSITAS
GADJAH MADA
Evaluasi Pendekatan SCORPAN dalam Prediksi Spasial Fraksi Tekstur Tanah pada Bahan Induk Hasil Proses Alterasi di Sub-DAS Bompon
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Mgohele, R. N., Massawe, B. H. J., Shitindi, M. J., Sanga, H. G., & Omar, M. M. (2024b). Prediction of soil texture using remote sensing data. A systematic review. In *Frontiers in Remote Sensing* (Vol. 5). Frontiers Media SA. https://doi.org/10.3389/frsen.2024.1461537

Moharana, P. C., Dharumarajan, S., Yadav, B., Jena, R. K., Pradhan, U. K., Sahoo, S., Meena, R. S., Nogiya, M., Meena, R. L., Singh, R. S., Singh, S. K., & Dwivedi, B. S. (2023). Prediction of Soil Inorganic Carbon at Multiple Depths Using Quantile Regression Forest and Digital Soil Mapping Technique in the Thar Desert Regions of India. *Communications in Soil Science and Plant Analysis*, *54*(21), 2977–2994. https://doi.org/10.1080/00103624.2023.2253840

Moura-Bueno, J. M., Dalmolin, R. S. D., ten Caten, A., Dotto, A. C., & Demattê, J. A. M. (2019). Stratification of a local VIS-NIR-SWIR spectral library by homogeneity criteria yields more accurate soil organic carbon predictions. *Geoderma*, *337*, 565–581. https://doi.org/10.1016/j.geoderma.2018.10.015

Naimi, A. I., & Balzer, L. B. (2018). Stacked generalization: an introduction to super learning. *European Journal of Epidemiology*, *33*(5), 459–464. https://doi.org/10.1007/s10654-018-0390-z

Navia, R., Hafner, G., Raber, G., Lorber, K. E., Schöffmann, E., & Vortisch, W. (2005). The use of volcanic soil as mineral landfill liner - I. Physicochemical characterization and comparison with zeolites. *Waste Management & Research: The Journal for a Sustainable Circular Economy*, *23*(3), 249–259. https://doi.org/10.1177/0734242X05055476

Noviyanto, A., Sartohadi, J., & Purwanto, B. H. (2020). The distribution of soil morphological characteristics for landslide-impacted Sumbing Volcano, Central Java - Indonesia. *Geoenvironmental Disasters*, *7*(1), 25. https://doi.org/10.1186/s40677-020-00158-8

Nussbaum, M., Spiess, K., Baltensweiler, A., Grob, U., Keller, A., Greiner, L., Schaepman, M. E., & Papritz, A. (2018). Evaluation of digital soil mapping approaches with large sets of environmental covariates. *SOIL*, *4*(1), 1–22. https://doi.org/10.5194/soil-4-1-2018

Nussbaum, M., Vogel, S., Oechslin, S., Tanner, S., & Burgos, S. (2023). Smoothed predicted distributions in digital soil mapping – a comprehensive comparative study to predict soil texture for irrigation. In *EGU General Assembly 2023*. https://doi.org/10.5194/egusphere-egu23-5543

UNIVERSITAS
GADJAH MADA
Evaluasi Pendekatan SCORPAN dalam Prediksi Spasial Fraksi Tekstur Tanah pada Bahan Induk Hasil Proses Alterasi di Sub-DAS Bompon
Nurarfiyah Desi Fatmawati, Prof. Dr. rer. nat. Junun Sartohadi, M.Sc.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Pahlavan-Rad, M. R., & Akbarimoghaddam, A. (2018). Spatial variability of soil texture fractions and pH in a flood plain (case study from eastern Iran). *CATENA*, *160*, 275–281. https://doi.org/10.1016/j.catena.2017.10.002

Pennell, T., Comeau, L.-P., Zhang, J., Feng, C., & Heung, B. (2026). The importance of zeros in digital soil mapping II: A case study of depth-to-bedrock mapping in New Brunswick, Canada. *Geoderma*, *465*, 117651. https://doi.org/10.1016/j.geoderma.2025.117651

Prayitno, A., Sartohadi, J., & Nurudin, M. (2019). Utilization of Soil Function Information for Assessing Soil Quality of Rice Field in the Quaternary-Tertiary Volcanic Transitional Zones in Central Java. *SAINS TANAH - Journal of Soil Science and Agroclimatology*, *16*(2), 169. https://doi.org/10.20961/stjssa.v16i2.35492

Priyono, K. D. (2012). A Study of Clay Mineral in The Occurences of Landslide Disaster Area at Kulonprogo Mountains Yogyakarta Special Province. *InForum Geografi*, *26*, 53.

Prokhorenkova, L., Gusev, G., Vorobev, A., Dorogush, A. V., & Gulin, A. (2018). CatBoost: unbiased boosting with categorical features. *32nd Conference on Neural Information Processing Systems*. https://github.com/catboost/catboost

Pulungan, N. A., & Sartohadi, J. (2018). New Approach to Soil Formation in the Transitional Landscape Zone: Weathering and Alteration of Parent Rocks. *Journal of Environments*, *5*(1), 1–7. https://doi.org/10.20448/journal.505.2018.51.1.7

Purwaningsih, R. (2020). *Model Tanaman Kebun Agroforestri pada Lahan Bekas Longsor di Sub DAS Kaliwungu Kabupaten Magelang*. Universitas Gadjah Mada.

Purwaningsih, R., Hartanti, H., Dewi, I. K., Salsabila, G., Handayani, S., Hatta, D. A. H., Ariyanti, S. D., Putri, H. A., Stakhis, E. P., Sartohadi, J., Priyawati, E. G. A., Pulungan, N. A. H. J., Paradisa, D. A., Mashum, H., & Gomez, C. (2025). Subsoil Mineralogy as Environmental Factors in Controlling Topsoil Material in the Menoreh–Sumbing Volcanic Structural Transitional Landscape, Central Java. *Journal of Water and Land Development*, 73–73. https://doi.org/10.24425/jwld.2025.156041

Qin, C.-Z., Zhu, A.-X., Shi, X., Li, B.-L., Pei, T., & Zhou, C.-H. (2009). Quantification of spatial gradation of slope positions. *Geomorphology*, *110*(3–4), 152–161. https://doi.org/10.1016/j.geomorph.2009.04.003

UNIVERSITAS
GADJAH MADA
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Rahmi, M., Setiawan, M. A., & Mardiatno, D. (2019). Analisis Kekeringan Berdasarkan Bentuklahan Di Das Bompon. *Media Komunikasi Geografi*, *20*(2), 90. https://doi.org/10.23887/mkg.v20i2.18399

Rhoton, F. E., & Duiker, S. W. (2008). Erodibility of a soil drainage sequence in the loess uplands of Mississippi. *CATENA*, *75*(2), 164–171. https://doi.org/10.1016/j.catena.2008.05.005

Rinaldi, M., & He, Z. (2014). *Decision Support Systems to Manage Irrigation in Agriculture* (pp. 229–279). https://doi.org/10.1016/B978-0-12-420225-2.00006-6

Salgueiro, L., Marcello, J., & Vilaplana, V. (2021). Single-Image Super-Resolution of Sentinel-2 Low Resolution Bands with Residual Dense Convolutional Neural Networks. *Remote Sensing*, *13*(24), 5007. https://doi.org/10.3390/rs13245007

Sambodo, A. P., & Arpornthip, T. (2021). Increasing the Efficiency of Detailed Soil Resource Mapping on Transitional Volcanic Landforms Using a Geomorphometric Approach. *Applied and Environmental Soil Science*, *2021*, 1–12. https://doi.org/10.1155/2021/8867647

Sartohadi, J., Rahma, A. D., & Nugraha, S. S. (2024a). Productive conservation at the landslide prone area under the threat of rapid land cover changes. *Open Geosciences*, *16*(1). https://doi.org/10.1515/geo-2022-0700

Sartohadi, J., Rahma, A. D., & Nugraha, S. S. (2024b). Productive conservation at the landslide prone area under the threat of rapid land cover changes. *Open Geosciences*, *16*(1). https://doi.org/10.1515/geo-2022-0700

Sartohadi, J., Suratman, Jamulya, & Dewi, N. I. S. (2022). *Pengantar Geografi Tanah* (Cetakan IV). Pustaka Pelajar.

Schulz, G. A., Rodríguez, D. M., Angelini, M., Moretti, L. M., Olmedo, G. F., Tenti Vuegen, L. M., Colazo, J. C., & Guevara, M. (2023). Digital Soil Texture Maps of Argentina and Their Relationship to Soil-Forming Factors and Processes. In *Geopedology* (pp. 263–281). Springer International Publishing. https://doi.org/10.1007/978-3-031-20667-2_14

Sheykhmousa, M., Mahdianpari, M., Ghanbari, H., Mohammadimanesh, F., Ghamisi, P., & Homayouni, S. (2020). Support Vector Machine Versus Random Forest for Remote Sensing Image Classification: A Meta-Analysis and Systematic Review. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *13*, 6308–6325. https://doi.org/10.1109/JSTARS.2020.3026724

Skentos, A., & Ourania, A. (2017). Landform Analysis Using Terrain Attributes. A Gis Application on the Island of Ikaria (Aegean Sea, Greece). *Annals of Valahia*

UNIVERSITAS GADJAH MADA
Evaluasi Pendekatan SCORPAN dalam Prediksi Spasial Fraksi Tekstur Tanah pada Bahan Induk Hasil Proses Alterasi di Sub-DAS Bompon
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

University of Targoviste, Geographical Series, *17*(1), 90–97. https://doi.org/10.1515/avutgs-2017-0009

Soil Science Staff. (2017a). Chapter 1: Soil and Soil Survey. In *Soil Survey Manual*.

Soil Science Staff. (2017b). Chapter 3: Examination and Description of Soil Profiles. In *Soil Survey Manual* (Chapter 3:).

Sulaeman, Y., & Husnain. (2021). Membuat Peta Tanah dengan Teknik Disagregasi Spasial. *Jurnal Sumberdaya Lahan*, *15*(2).

Sulaiman, S. M., Mezaal, M. R., & Al-Attar, A. A. A. (2024). Evaluation of Machine Learning Models for Predicting Soil Texture Using Sentinel-1A SAR and Topographic Information. *Ecological Engineering & Environmental Technology*, *25*(11), 200–217. https://doi.org/10.12912/27197050/192397

Theres, B. L., & Sakthivel, R. (2022). Prediction of Soil Properties Using Quantile Regression Forest Machine Learning Algorithm – A Case Study of Salem and Rasipuram Block, Tamil Nadu, India. *International Journal of Environment and Climate Change*, 2530–2553. https://doi.org/10.9734/ijecc/2022/v12i1131246

Trotta, F. (2024, April 7). *How to Handle Imbalanced Data for Machine Learning in Python*. Semaphore.

Turgut, Y. S., & Koca, Y. K. (2026). Predictive mapping of soil texture using vis–NIR spectroscopy and machine learning in semi-arid Eastern Mediterranean. *Advances in Space Research*, *78*(2), 660–683. https://doi.org/10.1016/j.asr.2026.04.065

Unamunzaga, O., Besga, G., Castellón, A., Usón, M. A., Chéry, P., Gallejones, P., & Aizpurua, A. (2014). Spatial and vertical analysis of soil properties in a Mediterranean vineyard soil. *Soil Use and Management*, *30*(2), 285–296. https://doi.org/10.1111/sum.12110

Vaysse, K., & Lagacherie, P. (2017). Using quantile regression forest to estimate uncertainty of digital soil mapping products. *Geoderma*, *291*, 55–64. https://doi.org/10.1016/j.geoderma.2016.12.017

Viloria, J. A., Viloria-Botello, A., Pineda, M. C., & Valera, A. (2016). Digital modelling of landscape and soil in a mountainous region: A neuro-fuzzy approach. *Geomorphology*, *253*, 199–207. https://doi.org/10.1016/j.geomorph.2015.10.007

Viscarra Rossel, R. A., Behrens, T., Ben-Dor, E., Brown, D. J., Demattê, J. A. M., Shepherd, K. D., Shi, Z., Stenberg, B., Stevens, A., Adamchuk, V., Aïchi, H., Barthès, B. G., Bartholomeus, H. M., Bayer, A. D., Bernoux, M., Böttcher, K.,

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Proses Alterasi di Sub-DAS Bompon**
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Brodský, L., Du, C. W., Chappell, A., … Ji, W. (2016). A global spectral library to characterize the world's soil. *Earth-Science Reviews*, *155*, 198–230. https://doi.org/10.1016/j.earscirev.2016.01.012

Vories, E., O'Shaughnessy, S., Sudduth, K., Evett, S., Andrade, M., & Drummond, S. (2021). Comparison of precision and conventional irrigation management of cotton and impact of soil texture. *Precision Agriculture*, *22*(2), 414–431. https://doi.org/10.1007/s11119-020-09741-3

Wadoux, A. M. J.-C. (2019). Using deep learning for multivariate mapping of soil with quantified uncertainty. *Geoderma*, *351*, 59–70. https://doi.org/10.1016/j.geoderma.2019.05.012

Wida, W. A., Maas, A., & Sartohadi, J. (2019). Pedogenesis of Mt. Sumbing Volcanic Ash above The Alteration Clay Layer in The Formation of Landslide Susceptible Soils in Bompon Sub-Watershed. *Ilmu Pertanian (Agricultural Science)*, *4*(1), 15. https://doi.org/10.22146/ipas.41893

Wijayanti, N. F. (2020). *Aplikas Model SWAT (Soil and Water Assesment Tool) untuk Mengetahui Besar Nitrogen dan Fosfor pada Aliran Permukaan di DAS Bompon*. Universitas Gadjah Mada.

Wolpert, D. H. (1992). Stacked generalization. *Neural Networks*, *5*(2), 241–259. https://doi.org/10.1016/S0893-6080(05)80023-1

Yan, W. Y., Shaker, A., & El-Ashmawy, N. (2015). Urban land cover classification using airborne LiDAR data: A review. *Remote Sensing of Environment*, *158*, 295–310. https://doi.org/10.1016/j.rse.2014.11.001

Zeraatpisheh, M., Jafari, A., Bagheri Bodaghabadi, M., Ayoubi, S., Taghizadeh-Mehrjardi, R., Toomanian, N., Kerry, R., & Xu, M. (2020). Conventional and digital soil mapping in Iran: Past, present, and future. *CATENA*, *188*, 104424. https://doi.org/10.1016/j.catena.2019.104424