

DAFTAR PUSTAKA

- Abdullah, N. A., Syahri, A., Amir, F., Harmin, A., & Umar, H. (2023). *Solar Energy for Water Optimization : Advancing Clean Water Distribution at Universitas Samudra*. 564–571. <https://doi.org/10.14710/jsp.2023.21644>
- Abelairas-Etxebarria, P., & Astorkiza, I. (2020). From exploratory data analysis to exploratory spatial data analysis. *Mathematics and Statistics*, 8(2), 82–86. <https://doi.org/10.13189/ms.2020.080202>
- Adeyeye, K., Gibberd, J., & Chakwizira, J. (2020). *Water Marginality In Rural And Peri-Urban*. 273. <https://doi.org/10.1016/j.jclepro.2020.122594>
- Adrianto, O. (2015). Analisis Daerah Rawan Kekeringan Lahan Jagung Berdasarkan Iklim Oldeman dan Ketersediaan Airtanah Di Nusa Tenggara Timur saat Periode El Nino dan La Nina. *Prosiding*, 1219–1228.
- Afzal, M. K. (2021a). Economic evaluation of small dams in rain-fed region of Pothwar Plateau, Pakistan. *Cogent Food & Agriculture*, 7(1). <https://doi.org/10.1080/23311932.2021.1942403>
- Afzal, M. K. (2021b). Economic evaluation of small dams in rain-fed region of Pothwar Plateau, Pakistan. *Cogent Food & Agriculture*. <https://doi.org/10.1080/23311932.2021.1942403>
- Agarwal, A., & Narain, S. (1997). Dying wisdom: the decline and revival of traditional water harvesting systems in India. *Ecologist*, 27(3), 112–116. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-0031472254&partnerID=40&md5=5d828e265399d302ce2486f90b099b29>
- Agrawal, A., & Ostrom, E. (2001). Collective Action, Property Rights, and Decentralization in Resource Use in India and Nepal. *Politics & Society*, 29(4), 485–514. <https://doi.org/10.1177/0032329201029004002>
- Ajayi, O. G., Palmer, M., & Salubi, A. A. (2018). Modelling farmland topography for suitable site selection of dam construction using unmanned aerial vehicle (UAV) photogrammetry. *Remote Sensing Applications: Society and Environment*, 11(June), 220–230. <https://doi.org/10.1016/j.rsase.2018.07.007>
- Akpoti, K., Higginbottom, T. P., Foster, T., Adhikari, R., & Zwart, S. J. (2022). Mapping land suitability for informal, small-scale irrigation development using spatial modelling and machine learning in the Upper East Region, Ghana. *Science of the Total Environment*, 803, 149959. <https://doi.org/10.1016/j.scitotenv.2021.149959>
- Al-Damat Rida, Al-shabeeb, A. A., & Al-fugara, A. (2017). The Use of Vector-Based GIS and Multi-Criteria Decision Making (MCDM) for Siting Water Harvesting Dams in Karak. *Journal of Natural Sciences Research*, 7(6), 28–35.
- Al-Juaidi, A. E. M. (2018). A simplified GIS-based SCS-CN method for the assessment of land-use change on runoff. *Arabian Journal of Geosciences*, 11(11). <https://doi.org/10.1007/s12517-018-3621-4>
- Alfandi, W. (2001). *Epistemologi Geografi*. Gadjah Mada University Press.
- Ali, I. Ben, Turki, M., Belhadj, J., Roboam, X., Ali, I. Ben, Turki, M., Belhadj, J., &

- Roboam, X. (2020). *Systemic design and energy management of a standalone battery-less PV / Wind driven brackish water reverse osmosis desalination system* To cite this version : HAL Id : hal-02981480 *Systemic Design and Energy Management of a Standalone Battery-less PV / Wind driven Brackish Water Reverse Osmosis Desalination System*.
- Ammar, A., Riksen, M., Ouessar, M., & Ritsema, C. (2016). Identification of suitable sites for rainwater harvesting structures in arid and semi-arid regions: A review. *International Soil and Water Conservation Research*, 4(2), 108–120. <https://doi.org/10.1016/j.iswcr.2016.03.001>
- Ananda, F., Nofrizal, N., Yoswaty, D., Farida, L., & Hamidy, R. (2023). Integrating Environmentally Friendly Management of Water Resources Toward Ecological and Socio-Economic Sustainability. *International Journal of Energy Economics and Policy*, 13(3), 73–79. <https://doi.org/10.32479/ijeep.14310>
- Anari, R., Gaston, T. L., Randle, T. J., Ph, D., Wre, D., Asce, M., Hotchkiss, R. H., Ph, D., Wre, D., & Asce, F. (2023). *New Economic Paradigm for Sustainable Reservoir Sediment Management*. 149(2), 1–13. [https://doi.org/10.1061/\(ASCE\)WR.1943-5452.0001614](https://doi.org/10.1061/(ASCE)WR.1943-5452.0001614)
- Andualem, Y., Tamene, M., Mengistu, D., & Nigusie, A. (2022). Evaluation of reservoir sedimentation using bathymetry survey : a case study on Adebra night storage reservoir , Ethiopia. *Applied Water Science*, 12(12), 1–16. <https://doi.org/10.1007/s13201-022-01787-0>
- Anjasgoro, B., Suharyanto, S., & Sangkawati, S. (2016). Analisis Prioritas Pembangunan Embung Metode Cluster Analysis, AHP dan Weighted Average (Studi Kasus: Embung di Kabupaten Semarang). In *MEDIA KOMUNIKASI TEKNIK SIPIL* (Vol. 21, Issue 2, p. 101). Institute of Research and Community Services Diponegoro University (LPPM UNDIP). <https://doi.org/10.14710/mkts.v21i2.11236>
- Arora, J., Malhotra, B., Agarwala, P., & Chandwani, C. (2024). Analysis of Density-Based Clustering Algorithm Variants on Real-World and Gaussian Motion Datasets. *Proceedings of the 14th International Conference on Cloud Computing, Data Science and Engineering, Confluence 2024*, 205–211. <https://doi.org/10.1109/Confluence60223.2024.10463474>
- Ayele, G. T., Kuriqi, A., Jemberrie, M. A., Saia, S. M., Seka, A. M., Teshale, E. Z., Daba, M. H., Bhat, S. A., Demissie, S. S., & Jeong, J. (2021). *Sediment Yield and Reservoir Sedimentation in Highly Dynamic Watersheds : The Case of Koga Reservoir , Ethiopia*. 1–20.
- Bailey, A., Moglia, M., & Glackin, S. (2024). Participatory justice and climate adaptation for water management in Small Island Developing States: a systematic literature review and discussion. *Regional Environmental Change*, 24(1), 1–21. <https://doi.org/10.1007/s10113-024-02182-y>
- Balázsik, V., Tóth, Z., & Abdurahmanov, I. (2021). Analysis of data acquisition accuracy with UAV. *International Journal of Geoinformatics*, 17(1), 1–10. <https://doi.org/10.52939/ijg.v17i1.1697>
- Basiago, A. D. (1995). Methods of defining ‘sustainability.’ *Sustainable Development*, 3(3),

- 109–119. <https://doi.org/https://doi.org/10.1002/sd.3460030302>
- Beça, P., Rodrigues, A. C., Nunes, J. P., & Diogo, P. (2023). Optimizing Reservoir Water Management in a Changing Climate. *Water Resources Management*, 37(9), 3423–3437. <https://doi.org/10.1007/s11269-023-03508-x>
- Becerra, B. B., Reyes, S. V, Hernández, A. G., Elizondo, P. V, & Gonzalez, A. M. (2021). Good practice guide for data visualization in the area of descriptive statistics. *2021 Mexican International Conference on Computer Science, ENC 2021*. <https://doi.org/10.1109/ENC53357.2021.9534814>
- Becue, J.-P., Degoutte, G., & Lautrin, D. (2002). Choice of site and type of dam. *Small Dams*, 17–22.
- Berhane, G., Gebreyohannes, T., Martens, K., & Walraevens, K. (2016). Overview of micro-dam reservoirs (MDR) in Tigray (northern Ethiopia): Challenges and benefits. *Journal of African Earth Sciences*, 123, 210–222. <https://doi.org/10.1016/j.jafrearsci.2016.07.022>
- Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of Traditional Ecological Knowledge as Adaptive Management. *Society, Ecological Applications, Ecological*, 10(5), 1251–1262.
- Berkes, F., & Folke, C. (1998). Linking Social and Ecological Systems: Management Practices and Social Mechanisms for Building Resilience. Cambridge University Press, New York. *Ecology and Society*, 4, XIX–XX. <https://doi.org/10.5751/ES-00202-040205>
- Bhatti, N. B., Siyal, A. A., Qureshi, A. L., & Bhatti, I. A. (2019). Socio-Economic Impact Assessment of Small Dams Based on T-Paired Sample Test Using SPSS Software. *Civil Engineering Journal*, 5(1), 153. <https://doi.org/10.28991/cej-2019-03091233>
- Boers, T. M., Ben-Asher, J., Bruins, H. J., Evenari, M., & Nessler, U. (1982). A review of rainwater harvesting. *Agricultural Water Management*, 6(2), 145–158. [https://doi.org/https://doi.org/10.1016/0378-3774\(82\)90003-8](https://doi.org/https://doi.org/10.1016/0378-3774(82)90003-8)
- Bozorg-Haddad, O., Yari, P., Delpasand, M., & Chu, X. (2021). Reservoir operation under influence of the joint uncertainty of inflow and evaporation. *Environment, Development and Sustainability*, 24, 2914–2940. <https://doi.org/10.1007/s10668-021-01560-4>
- Bravo-Ureta, B. E., Higgins, D., & Arslan, A. (2020). Irrigation infrastructure and farm productivity in the Philippines: A stochastic Meta-Frontier analysis. *World Development*, 135, 105073. <https://doi.org/https://doi.org/10.1016/j.worlddev.2020.105073>
- Brown, R. R. (2008). *Local Institutional Development and Organizational Change for Advancing Sustainable Urban Water Futures*. 221–233. <https://doi.org/10.1007/s00267-007-9046-6>
- Burrough, P. A. (1998). *Principles Of Geographical Information Systems*. Oxford University Press. <https://books.google.co.id/books?id=PAzBnQEACAAJ>
- Bushra, A. A., & Yi, G. (2021). Comparative Analysis Review of Pioneering DBSCAN and Successive Density-Based Clustering Algorithms. *IEEE Access*, 9, 87918–87935. <https://doi.org/10.1109/ACCESS.2021.3089036>



- C. Chomba, I., & M. Sichingabula, H. (2016). Sedimentation and Its Effects on Selected Small Dams East of Lusaka, Zambia. *Modern Environmental Science and Engineering*, 1(6), 325–340. [https://doi.org/10.15341/mese\(2333-2581\)/06.01.2015/007](https://doi.org/10.15341/mese(2333-2581)/06.01.2015/007)
- Casadei, S., Francesco, S. Di, Giannone, F., & Pierleoni, A. (2019). *Small reservoirs for a sustainable water resources management*. 165–174.
- Chapin, F. S., Carpenter, S. R., Kofinas, G. P., Folke, C., Abel, N., Clark, W. C., Olsson, P., Smith, D. M. S., Walker, B., Young, O. R., Berkes, F., Biggs, R., Grove, J. M., Naylor, R. L., Pinkerton, E., Steffen, W., & Swanson, F. J. (2010). Ecosystem stewardship: sustainability strategies for a rapidly changing planet. *Trends in Ecology and Evolution*, 25(4), 241–249. <https://doi.org/10.1016/j.tree.2009.10.008>
- Chen, D., Yan, Y., & Wang, D. (2014). Density clustering based on border-expanding. *2014 10th International Conference on Natural Computation, ICNC 2014*, 670–674. <https://doi.org/10.1109/ICNC.2014.6975916>
- Chorley, R. J. (1969). *Water, Earth, and Man: A Synthesis of Hydrology, Geomorphology, and Socio-Economic Geography* (Routledge Revivals (ed.)). Methuen & Co. Ltd.
- Church, J. M., Tirrell, A., Moomaw, W., & Ragueneau, O. (2022). Sustainability. *Routledge Handbook of Global Environmental Politics*. <https://doi.org/10.4324/9781003008873-20>
- Cumming, G. S. (2011). Spatial Resilience in Social-Ecological Systems. *Spatial Resilience in Social-Ecological Systems*. <https://doi.org/10.1007/978-94-007-0307-0>
- Daneshfaraz, R., Norouzi, R., Ebadzadeh, P., Francesco, S. Di, & Abraham, J. P. (2023). *Experimental Study of Geometric Shape and Size of Sill Effects on the Hydraulic Performance of Sluice Gates*.
- Darabi, H., Moradi, E., Davudirad, A. A., Ehteram, M., Cerda, A., & Haghighi, A. T. (2021). Efficient rainwater harvesting planning using socio-environmental variables and data-driven geospatial techniques. *Journal of Cleaner Production*, 311(December 2020), 127706. <https://doi.org/10.1016/j.jclepro.2021.127706>
- Das, B. C., Islam, A., & Sarkar, B. (2022). Drainage Basin Shape Indices to Understanding Channel Hydraulics. *Water Resources Management*, 2523–2547. <https://doi.org/10.1007/s11269-022-03121-4>
- David, O., & Hughes, S. (2024). Whose water crisis? How policy responses to acute environmental change widen inequality. *Policy Studies Journal*, 52(2), 425–450. <https://doi.org/10.1111/psj.12524>
- de Sá Silva, A. C. R., Bimbato, A. M., Balestieri, J. A. P., & Vilanova, M. R. N. (2022). Exploring environmental, economic and social aspects of rainwater harvesting systems: A review. *Sustainable Cities and Society*, 76(March 2021), 103475. <https://doi.org/10.1016/j.scs.2021.103475>
- de Winnaar, G., Jewitt, G. P. W., & Horan, M. (2007). A GIS-based approach for identifying potential runoff harvesting sites in the Thukela River basin, South Africa. *Physics and Chemistry of the Earth*, 32(15–18), 1058–1067. <https://doi.org/10.1016/j.pce.2007.07.009>
- Deepa Pradhan, Tiho Ancev, R. D. and M. H. (2009). Management of Water Reservoirs

(Embungs) in West Timor, Indonesia. *AARES 53rd Annual Conference Cairns International Hotel, Northern Queensland, Australia, February.*

- Deng, D. (2020). DBSCAN Clustering Algorithm Based on Density. *Proceedings - 2020 7th International Forum on Electrical Engineering and Automation, IFEEA 2020*, 949–953. <https://doi.org/10.1109/IFEEA51475.2020.00199>
- Direktorat Irigasi Pertanian. (2019). *Pedoman Teknis Pengembangan Embung Pertanian*. Direktorat Jenderal Prasarana dan Sarana Pertanian Kementerian Pertanian.
- Djoukbala, O., Djerbouai, S., Alqadhi, S., Hasbaia, M., Benselama, O., Abdo, H. G., Mallick, J., Djoukbala, O., Djerbouai, S., Alqadhi, S., & Hasbaia, M. (2024). A geospatial approach-based assessment of soil erosion impacts on the dams silting in the semi- arid region. *Geomatics, Natural Hazards and Risk*, 15(1). <https://doi.org/10.1080/19475705.2024.2375543>
- Dong, X., Taylor, C. J., & Cootes, T. F. (2020). Defect Detection and Classification by Training a Generic Convolutional Neural Network Encoder. *IEEE Transactions on Signal Processing*, 68, 6055–6069. <https://doi.org/10.1109/TSP.2020.3031188>
- Duda, A. M., & Hirji, F. (2025). *Mainstreaming integrated approaches to sustain lake and reservoir basin bene fi ts in a changing climate*. 27(2), 204–222. <https://doi.org/10.2166/wp.2025.202>
- Duić, N., Urbaniec, K., & Huisingh, D. (2015). Components and structures of the pillars of sustainability. *Journal of Cleaner Production*, 88, 1–12. <https://doi.org/10.1016/j.jclepro.2014.11.030>
- Eduful, M. (2024). Toward good governance in water resources management in Ghana. *Natural Resources Forum*, 48(2), 485–507. <https://doi.org/10.1111/1477-8947.12324>
- Egbumokei, P. I., Dienagha, I. N., Digitemie, W. N., Cynthia, E., & Oladipo, O. T. (2020). *Sustainability in reservoir management : A conceptual approach to integrating green technologies with data-driven modeling* Received : 09-09-2024 Accepted : 06-10-2024 Page No : 1003-1013. 1003–1013.
- Egbumokei, P. I., Dienagha, I. N., Digitemie, W. N., Onukwulu, E. C., & Oladipo, O. T. (2024). Sustainability in reservoir management: A conceptual approach to integrating green technologies with data-driven modeling. *International Journal of Multidisciplinary Research and Growth Evaluation*. <https://doi.org/10.54660/ijmrge.2024.5.5.1003-1013>
- Ehsani, N., Vörösmarty, C. J., Fekete, B. M., & Stakhiv, E. Z. (2017). Reservoir operations under climate change : Storage capacity options to mitigate risk. *Journal of Hydrology*, 555, 435–446. <https://doi.org/10.1016/j.jhydrol.2017.09.008>
- Elliott, M., MacDonald, M. C., Chan, T., Kearton, A., Shields, K. F., Bartram, J. K., & Hadwen, W. L. (2017). Multiple Household Water Sources and Their Use in Remote Communities With Evidence From Pacific Island Countries. *Water Resources Research*, 53(11), 9106–9117. <https://doi.org/10.1002/2017WR021047>
- Emamgholi, M., Khosravi, K., & Sedaii, N. (2015). Suitable site selections for gabion check dams construction using analytical hierarchy process and decision making methods. *Journal of Soil Environment*, 1, 35–44. www.jse.uma.ac.ir

- Erfani, S. M. H., & Goharian, E. (2022). ATeX: A Benchmark for Image Classification of Water in Different Waterbodies Using Deep Learning Approaches. *Journal of Water Resources Planning and Management*, 148(11). [https://doi.org/10.1061/\(ASCE\)WR.1943-5452.0001615](https://doi.org/10.1061/(ASCE)WR.1943-5452.0001615)
- Ettazarini, S. (2021). GIS-based land suitability assessment for check dam site location, using topography and drainage information: a case study from Morocco. *Environmental Earth Sciences*, 80(17), 567. <https://doi.org/10.1007/s12665-021-09881-3>
- Ezekwe, N. (2018). Field examples demonstrating applications of the five principles of reservoir management. *Society of Petroleum Engineers - SPE Nigeria Annual International Conference and Exhibition 2018, NAIC 2018*. <https://doi.org/10.2118/193532-ms>
- FAO. (2014). *Compendium on Rainwater Harvesting for Agriculture in the Caribbean Sub-region Concepts, calculations and definitions for small, rain-fed farm systems*. www.fao.org
- Farahi, M. M. M., Ahmadi, M., & Dabir, B. (2021). Model-based water-flooding optimization using multi-objective approach for efficient reservoir management. *Journal of Petroleum Science and Engineering*, 196(October 2020), 107988. <https://doi.org/10.1016/j.petrol.2020.107988>
- Forzieri, G., Gardenti, M., Caparrini, F., & Castelli, F. (2008). A methodology for the pre-selection of suitable sites for surface and underground small dams in arid areas: A case study in the region of Kidal, Mali. *Physics and Chemistry of the Earth, Parts A/B/C*, 33(1–2), 74–85. <https://doi.org/10.1016/j.pce.2007.04.014>
- Fransiska, G., Sari, A., Yolanda, D., Negeri, U., Rayi, S., Rajib, K., Kampus, A. :, Gunungpati, S., & Tengah, S. J. (2024). Krisis Air Menangani Penyediaan Air Bersih Di Dunia Yang Semakin Kekurangan Sumber Daya. *Jurnal Ilmiah Research Student*, 1(5), 334–341. <https://doi.org/10.61722/jirs.v1i5.1373>
- Gebru, K. M., Woldearegay, K., van Steenberg, F., Beyene, A., Vera, L. F., Gebreegziabher, K. T., & Alemayhu, T. (2020). Adoption of road water harvesting practices and their impacts: Evidence from a semi-arid region of Ethiopia. *Sustainability (Switzerland)*, 12(21), 1–25. <https://doi.org/10.3390/su12218914>
- Ghimire, S. R., & Johnston, J. M. (2019). Sustainability assessment of agricultural rainwater harvesting: Evaluation of alternative crop types and irrigation practices. *PLoS ONE*, 14(5). <https://doi.org/10.1371/journal.pone.0216452>
- Gisha, H., Mekonnen, E., & Asha, A. (2024). Heliyon Assessment of sediment yield and accumulation in reservoir : The case of Gibe One Reservoir , Southwestern Ethiopia. *Heliyon*, 10(17), e36315. <https://doi.org/10.1016/j.heliyon.2024.e36315>
- Gómez, G. Á., Burbano, M. J. P., Haro, M. J. A., Borbor, A. M. C., & Ortega, R. G. (2021). Incidences of Exploratory Research in Postgraduate University Studies: A Neutrosophic Statistic Approach. *Neutrosophic Sets and Systems*, 44, 115–124. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119670897&partnerID=40&md5=d2c41c722bf10093a90ac6ea87135969>
- Gonzalez, L., Adrian, R., Damon, M., Charith, K., & Fairweather, H. (2023). A review of sedimentation rates in freshwater reservoirs : recent changes and causative factors.

Aquatic Sciences, 85(2), 1–19. <https://doi.org/10.1007/s00027-023-00960-0>

- Gordon, L. J., Finlayson, C. M., & Falkenmark, M. (2010). Managing water in agriculture for food production and other ecosystem services. *Agricultural Water Management*, 97(4), 512–519. <https://doi.org/https://doi.org/10.1016/j.agwat.2009.03.017>
- Gordon, N. D., McMahon, T. A., & Finlayson, B. L. (1992). Stream hydrology: an introduction for ecologists. In *Stream hydrology: an introduction for ecologists*. [https://doi.org/10.1016/0925-8574\(93\)90041-d](https://doi.org/10.1016/0925-8574(93)90041-d)
- Grum, B., Hessel, R., Kessler, A., Woldearegay, K., Yazew, E., Ritsema, C., & Geissen, V. (2016). A decision support approach for the selection and implementation of water harvesting techniques in arid and semi-arid regions. *Agricultural Water Management*, 173, 35–47. <https://doi.org/10.1016/j.agwat.2016.04.018>
- Gu, X., Zhang, Y., Wu, Q., & Wang, Y. (2022). *The Experimental Investigation of the Optimization of the Flow State of a Ladder-Shaped Spillway in a Certain Reservoir*. 2022. <https://doi.org/10.1155/2022/9195089>
- Gupta, J., Bosch, H. J., & van Vliet, L. (2025). Water security reframed using Water System Justice and Earth system boundaries, foundations, and corridor. *Frontiers in Water*, 7(January), 1–7. <https://doi.org/10.3389/frwa.2025.1520853>
- GWSP. (2021). Small Dam Safety. In *Small Dam Safety*. <https://doi.org/10.1596/35487>
- Haas, O.-E., & Hustad, P. S. (2018). Machine learning for evaluation of external and internal surface conditions. *Society of Petroleum Engineers - SPE International Oilfield Corrosion Conference and Exhibition 2018*. <https://doi.org/10.2118/190895-ms>
- Habets, F., Molénat, J., Carlier, N., Douez, O., & Leenhardt, D. (2018). The cumulative impacts of small reservoirs on hydrology: A review. *Science of the Total Environment*, 643, 850–867. <https://doi.org/10.1016/j.scitotenv.2018.06.188>
- Hakim, A., Kuncoro, B., & Budiningrum, D. S. (2022). *Analisis Sedimentasi di Tampungan Embung Daerah Irigasi Jurug Lendah Kulon Progo*. 11(1).
- Hao, Z., Chen, F., Jia, X., Cai, X., Yang, C., Du, Y., & Ling, F. (2024). GRDL: A New Global Reservoir Area-Storage-Depth Data Set Derived Through Deep Learning-Based Bathymetry Reconstruction. *Water Resources Research*, 60(1), 1–25. <https://doi.org/10.1029/2023WR035781>
- Harris, T. M. (2017). Exploratory spatial data analysis: Tight coupling data and space, spatial data mining, and hypothesis generation. In *Advances in Spatial Science* (Issue 9783319505893, pp. 181–191). https://doi.org/10.1007/978-3-319-50590-9_11
- Hasan, N., Pushpalatha, R., Arlikatti, S., & Cibi, R. (2023). *Global Sustainable Water Management : A Systematic*. 5255–5272.
- Hie, J. (2024). Exploratory research. In *Encyclopedia of Sport Management, Second Edition* (pp. 349–351). <https://doi.org/10.4337/9781035317189.ch203>
- Honek, D., Michalková, M. Š., Smetanová, A., Sočuvka, V., Velísková, Y., Karásek, P., Konečná, J., Némětová, Z., & Danáčová, M. (2020). Estimating sedimentation rates in small reservoirs - Suitable approaches for local municipalities in central Europe. *Journal of Environmental Management*, 261, 109958.

<https://doi.org/https://doi.org/10.1016/j.jenvman.2019.109958>

- Hossain, M. Z., Islam, M. J., Miah, M. W. R., Rony, J. H., & Begum, M. (2021). Develop a dynamic DBSCAN algorithm for solving initial parameter selection problem of the DBSCAN algorithm. *Indonesian Journal of Electrical Engineering and Computer Science*, 23(3), 1602–1610. <https://doi.org/10.11591/ijeecs.v23.i3.pp1602-1610>
- Huang, C. C. (2024). Navigating Reservoir Deposition Challenges: Evaluation of Reservoir Desilting Strategy Through a 4-Stage Life Cycle Assessment Approach. *Water Resources Management*, 38(10), 3937–3952. <https://doi.org/10.1007/s11269-024-03847-3>
- Jaffee, D. (2024). Unequal trust: Bottled water consumption, distrust in tap water, and economic and racial inequality in the United States. *Wiley Interdisciplinary Reviews: Water*, 11(2), 1–10. <https://doi.org/10.1002/wat2.1700>
- Kasiro, I., Adidharma, W., Rusli, B. S., Nudroho, C., & Sunarto. (1997). *Pedoman Kriteria Desain Embung Kecil untuk Daerah Semi Kering Di Indonesia*. PT. MEDISA.
- Kates, R. W., Parris, T. M., & Leiserowitz, A. A. (2005). What is sustainable development? Goals, indicators, values, and practice. *Environment*, 47(3), 8–21. <https://doi.org/10.1080/00139157.2005.10524444>
- Kelly, E., Lee, K., Shields, K. F., Cronk, R., Behnke, N., Klug, T., & Bartram, J. (2017). The role of social capital and sense of ownership in rural community-managed water systems: Qualitative evidence from Ghana, Kenya, and Zambia. *Journal of Rural Studies*, 56, 156–166. <https://doi.org/https://doi.org/10.1016/j.jrurstud.2017.08.021>
- Khosravi, K., Rezaie, F., Cooper, J. R., Kalantari, Z., Abolfathi, S., & Hatamiafkoueih, J. (2023). Soil water erosion susceptibility assessment using deep learning algorithms. *Journal of Hydrology*, 129229. <https://doi.org/10.1016/j.jhydrol.2023.129229>
- Kittikhoun, A., & Staubli, D. M. (2018). Water diplomacy and conflict management in the Mekong: From rivalries to cooperation. *Journal of Hydrology*, 567, 654–667. <https://doi.org/https://doi.org/10.1016/j.jhydrol.2018.09.059>
- Krisnayanti, D. S., Pasa, M. S., & Cornelis, R. (2023). Analysis Of Meteorological Drought With Standardized Precipitation Index In Kupang – East Nusa Tenggara. *Jurnal Sumber Daya Air*, 19(1), 1–12. <https://doi.org/10.32679/jsda.v19i1.793>
- Kryven, M., & Cowan, W. (2014). What does water look like? *Cae 2014 - Proceedings of the Workshop on Computational Aesthetics - Joint Symposium on Computational Aesthetics and Sketch-Based Interfaces and Modeling and Non-Photorealistic Animation and Rendering, Expressive 2014*, 53–56. <https://doi.org/10.1145/2630099.2630110>
- Kuhlman, T., & Farrington, J. (2010). *What is Sustainability?* 3436–3448. <https://doi.org/10.3390/su2113436>
- Lai, Z., Li, L., Tao, Z., Li, T., Shi, X., Li, J., & Li, X. (2023). *Spatio-Temporal Evolution and Influencing Factors of Ecological Well-Being Performance from the Perspective of Strong Sustainability : A Case Study of the Three Gorges Reservoir Area , China*.
- Lebel, S., Fleskens, L., Forster, P. M., Jackson, L. S., & Lorenz, S. (2015). Evaluation of In Situ Rainwater Harvesting as an Adaptation Strategy to Climate Change for Maize

- Production in Rainfed Africa. *Water Resources Management*, 29(13), 4803–4816. <https://doi.org/10.1007/s11269-015-1091-y>
- Leroy, N., Brown, C. M., Grantham, T. E., Matthews, J. H., Palmer, M. A., Caitlin, M., & Wilby, R. L. (2019). *Sustainable water management under future uncertainty with eco-engineering decision scaling*. 0–34.
- Li, W., Eiff, D. Von, & Kyoungjin, A. (2021). Analyzing the effects of institutional capacity on sustainable water governance. *Sustainability Science*, 16(1), 169–181. <https://doi.org/10.1007/s11625-020-00842-6>
- Liu, K., & Song, C. (2020). *Remote Sensing - Based Modeling of the Bathymetry and Water Storage for Channel - Type Reservoirs Worldwide Water Resources Research*. 1–19. <https://doi.org/10.1029/2020WR027147>
- López-Felices, B., Aznar-Sánchez, J. A., Velasco-Muñoz, J. F., & Piquer-Rodríguez, M. (2020). Contribution of irrigation ponds to the sustainability of agriculture. A review of worldwide research. *Sustainability (Switzerland)*, 12(13). <https://doi.org/10.3390/su12135425>
- Lucas-Borja, M. E., Piton, G., Yu, Y., Castillo, C., & Antonio Zema, D. (2021). Check dams worldwide: Objectives, functions, effectiveness and undesired effects. *CATENA*, 204(May 2020), 105390. <https://doi.org/10.1016/j.catena.2021.105390>
- Luis, A. dos A., & Cabral, P. (2021). Small dams/reservoirs site location analysis in a semi-arid region of Mozambique. In *International Soil and Water Conservation Elsevier*. <https://www.sciencedirect.com/science/article/pii/S2095633921000198>
- Luís, A. dos A., & Cabral, P. (2021). Small dams/reservoirs site location analysis in a semi-arid region of Mozambique. *International Soil and Water Conservation Research*, 9(3), 381–393. <https://doi.org/10.1016/j.iswcr.2021.02.002>
- Ma, B., Yang, C., Li, A., Chi, Y., & Chen, L. (2023). A Faster DBSCAN Algorithm Based on Self-Adaptive Determination of Parameters. *Procedia Computer Science*, 221, 113–120. <https://doi.org/10.1016/j.procs.2023.07.017>
- Magbondé, K. G., Thiam, D. R., & Wagner, N. (2024). The Economic Impacts of Rural Water Supply Infrastructures in Developing Countries : Empirical Evidence from Senegal. In *Environmental and Resource Economics* (Vol. 87, Issue 10). Springer Netherlands. <https://doi.org/10.1007/s10640-024-00897-4>
- Manchado, C., Rold, A., & Jato-espino, D. (2021). *ArcDrain : A GIS Add-In for Automated Determination of Surface Runoff in Urban Catchments*.
- Markowska, J., Szalińska, W., Dąbrowska, J., & Brząkała, M. (2020). The concept of a participatory approach to water management on a reservoir in response to wicked problems. *Journal of Environmental Management*, 259(December 2019). <https://doi.org/10.1016/j.jenvman.2019.109626>
- Márquez, J. D., Peña, L. E., Barrios, M., & Leal, J. (2021). Detection of rainwater harvesting ponds by matching terrain attributes with hydrologic response. *Journal of Cleaner Production*, 296, 126520. <https://doi.org/10.1016/j.jclepro.2021.126520>
- Mashala, M. J., Dube, T., Mudereri, B. T., Ayisi, K. K., & Ramudzuli, M. R. (2023). A Systematic Review on Advancements in Remote Sensing for Assessing and Monitoring

- Land Use and Land Cover Changes Impacts on Surface Water Resources in Semi-Arid Tropical Environments. *Remote Sensing*, 15(16). <https://doi.org/10.3390/rs15163926>
- Masi, M., Arrighi, C., Piragino, F., & Castelli, F. (2024). Participatory multi-criteria decision making for optimal siting of multipurpose artificial reservoirs. *Journal of Environmental Management*, 370. <https://doi.org/10.1016/j.jenvman.2024.122904>
- Mbilinyi, B. P. P., Tumbo, S. D. D., Mahoo, H. F. F., ..., & Mkiramwinyi, F. O. (2007). GIS-based decision support system for identifying potential sites for rainwater harvesting. ... of the Earth, Parts A/B/C, 32(15–18), 1074–1081. <https://doi.org/10.1016/j.pce.2007.07.014>
- Mbilinyi, B. P., Tumbo, S. D., Mahoo, H. F., & ... (2005). Indigenous knowledge as decision support tool in rainwater harvesting. ... of the Earth, Parts A/B/C. <https://www.sciencedirect.com/science/article/pii/S1474706505000938>
- Mekonnen, M. M., & Hoekstra, A. Y. (2016). Sustainability: Four billion people facing severe water scarcity. *Science Advances*, 2(2), 2–7. <https://doi.org/10.1126/sciadv.1500323>
- Messakh, J. J., & Punuf, D. A. (2020). Study on the accessibility of water sources to meet the water needs of rural communities in semi-arid regions of Indonesia. *IOP Conference Series: Earth and Environmental Science*, 426(1). <https://doi.org/10.1088/1755-1315/426/1/012043>
- Minea, G. (2013). Assessment of the flash flood potential of Bâsca river catchment (Romania) based on physiographic factors. *Central European Journal of Geosciences*, 5(3), 344–353. <https://doi.org/10.2478/s13533-012-0137-4>
- Minhas, M. S., & Zelek, J. (2020). Defect detection using deep learning from minimal annotations. *VISIGRAPP 2020 - Proceedings of the 15th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications*, 4, 506–513. <https://doi.org/10.5220/0009168005060513>
- Mohamadi, M. A., & Kavian, A. (2015). Effects of rainfall patterns on runoff and soil erosion in field plots. *International Soil and Water Conservation Research*, 3(4), 273–281. <https://doi.org/10.1016/j.iswcr.2015.10.001>
- Mohamed, M. H. (2025). *Polyacrylamide-Based Solutions : A Comprehensive Review on Nanomaterial Integration , Supramolecular Design , and Sustainable Approaches for Integrated Reservoir Management*. 1–33.
- Molino, B., Vincenzo, A. De, Minó, A., & Ambrosone, L. (2023). Long - Term Water Management Model for Preserving Sustainable Useful Capacity of Reservoirs. *Water Resources Management*, 1879–1894. <https://doi.org/10.1007/s11269-023-03460-w>
- Morgan, R., P., C. (2005). *Soil Erosion And Conservation*.
- Mu, B., Dai, M., & Yuan, S. (2020). DBSCAN-KNN-GA: A multi Density-Level Parameter-Free clustering algorithm. *IOP Conference Series: Materials Science and Engineering*, 715(1). <https://doi.org/10.1088/1757-899X/715/1/012023>
- Muhamya, H., Ocan, J., & Adyanga, A. F. (2024). Water Service Delivery Issues and Challenges for the Urban Poor Zones in South Western Uganda. *International Journal of Advanced Research*, 7(1), 83–92. <https://doi.org/10.37284/ijar.7.1.1800>



- Mulyani, A., Nursyamsi, D., & Las, I. (2014). Acceleration of Agricultural Development in Dryland with Dry Climate in Nusa Tenggara. *Pegembangan Inovasi Pertanian*, 7(4), 187–198.
- Mustapha, M. (2014). Problems , Challenges and Management of Small , Shallow Tropical African Reservoirs – A Case Study of Oyun Reservoir , Offa , Nigeria. *International Journal of Lakes and Rivers*, 2(January 2009), 163–174.
- MWIS. (2015). Practice Manual for Small Dams, Pans and Other Water Conservation Structures in Kenya. *State Department for Water, Ministry of Water and Irrigation, Government of Kenya*, 371.
- Najafi, S., Kiani-Harchegani, M., & Dragovich, D. (2025). Check dams: Distribution, purposes and effectiveness. *Science of the Total Environment*, 980(April), 179468. <https://doi.org/10.1016/j.scitotenv.2025.179468>
- Nelson, S., Drabarek, D., Jenkins, A., & Negin, J. (2021). How community participation in water and sanitation interventions impacts human health , WASH infrastructure income and and service longevity in low- - income countries : a realist review. *BMJ Open Access*, 1–18. <https://doi.org/10.1136/bmjopen-2021-053320>
- Ngigi, S. N. (2003). What is the limit of up-scaling rainwater harvesting in a river basin? *Physics and Chemistry of the Earth, Parts A/B/C*. <https://www.sciencedirect.com/science/article/pii/S1474706503001682>
- Nissen-Petersen, E. (2006). Water from Small Dams A handbook for technicians, farmers, and others on site investigations, design, cost estimates, contruction and and maintenance of small earth dams. In *ASAL Consultants Ltd. for the Danish International Development Assistance (Danida) in Kenya*.
- Noori, A. M., Pradhan, B., & Ajaj, Q. M. (2019). Dam site suitability assessment at the Greater Zab River in northern Iraq using remote sensing data and GIS. *Journal of Hydrology*, 574(May), 964–979. <https://doi.org/10.1016/j.jhydrol.2019.05.001>
- Notoatmojo, B., & Rivai, R. (2001). Optimasi Pengembangan Embung Di Indonesia. *The WINNERS*, 2(1), 12–17. <https://doi.org/10.21512/tw.v2i1.3795>
- Nyirenda, F., Mhizha, A., Gumindoga, W., & Shumba, A. (2021). A gis-based approach for identifying suitable sites for rainwater harvesting technologies in kasungu district, malawi. *Water SA*, 47(3), 347–355. <https://doi.org/10.17159/wsa/2021.v47.i3.11863>
- Odhiambo, K. O., Iro Ong’Or, B. T., & Kanda, E. K. (2021). Optimization of rainwater harvesting system design for smallholder irrigation farmers in Kenya: A review. *Aqua Water Infrastructure, Ecosystems and Society*, 70(4), 483–492. <https://doi.org/10.2166/aqua.2021.087>
- Ogilvie, A., Riaux, J., Massuel, S., Mulligan, M., Belaud, G., Le Goulven, P., & Calvez, R. (2019). Socio-hydrological drivers of agricultural water use in small reservoirs. *Agricultural Water Management*, 218(June 2018), 17–29. <https://doi.org/10.1016/j.agwat.2019.03.001>
- Olofsson, P. (2017). Accuracy and area estimation. In *Comprehensive Remote Sensing* (Vols. 1–9, pp. 128–135). <https://doi.org/10.1016/B978-0-12-409548-9.10382-3>
- Ostrom, E. (1990). Governing the Commons. *Governing the Commons*.

<https://doi.org/10.1017/cbo9780511807763>

- Ostrom, E. (2009). A general framework for analyzing sustainability of social-ecological systems. *Science*, 325(5939), 419–422. <https://doi.org/10.1126/science.1172133>
- Othman, A. A., Al-maamar, A. F., Ali, D., Amin, M., Liesenberg, V., Hasan, S. E., Obaid, A. K., & Al-quraishi, A. M. F. (2020). GIS-Based Modeling for Selection of Dam Sites in the Kurdistan Region , Iraq. *International Journal of Geo-Information*, 9, 1–34.
- Owusu, S., Cofie, O., Mul, M., & Barron, J. (2022a). The significance of small reservoirs in sustaining agricultural landscapes in dry areas of West Africa: A review. In *Water*. mdpi.com. <https://www.mdpi.com/2073-4441/14/9/1440>
- Owusu, S., Cofie, O., Mul, M., & Barron, J. (2022b). The Significance of Small Reservoirs in Sustaining Agricultural Landscapes in Dry Areas of West Africa: A Review. *Water (Switzerland)*, 14(9), 1–21. <https://doi.org/10.3390/w14091440>
- P3SDAK. (2017). *Modul Pengantar Perencanaan Embung*. Kementerian Pekerjaan Umum dan Perumahan Rakyat.
- Pandey, D. N., Gupta, A. K., & Anderson, D. M. (2003). Rainwater harvesting as an adaptation to climate change. *Current Science*. <https://www.jstor.org/stable/24107712>
- Połomski, M., & Wiatkowski, M. (2023). *Impounding Reservoirs , Benefits and Risks : A Review of Environmental and Technical Aspects of Construction and Operation*.
- Popescu, N.-C., & Bărbulescu, A. (2023). Flood Hazard Evaluation Using a Flood Potential Index. *Water (Switzerland)*, 15(20). <https://doi.org/10.3390/w15203533>
- Pouladi, P., Nazemi, A. R., Pouladi, M., Nikraftar, Z., Mohammadi, M., Yousefi, P., Yu, D. J., Afshar, A., Aubeneau, A., & Sivapalan, M. (2022). Desiccation of a saline lake as a lock-in phenomenon: A socio-hydrological perspective. *Science of the Total Environment*, 811. <https://doi.org/10.1016/j.scitotenv.2021.152347>
- Pradhan, D., Ancey, T., Drynan, R., & Harris, M. (2011). Management of Water Reservoirs (Embung) in West Timor, Indonesia. *Water Resources Management*, 25(1), 339–356. <https://doi.org/10.1007/s11269-010-9702-0>
- Pretty, J. N. (1995). Participatory learning for sustainable agriculture. *World Development*, 23(8), 1247–1263. [https://doi.org/10.1016/0305-750X\(95\)00046-F](https://doi.org/10.1016/0305-750X(95)00046-F)
- Ptok, M. (2004). Data reduction and descriptive statistics. *Sprache Stimme Gehor*, 28(3), 116–118. <https://doi.org/10.1055/s-2004-819015>
- Purvis, B., Mao, Y., & Robinson, D. (2019). Three pillars of sustainability: in search of conceptual origins. *Sustainability Science*, 14(3), 681–695. <https://doi.org/10.1007/s11625-018-0627-5>
- Raghuwanshi, A., & Srivastav, A. K. (2025). Identifying and analyzing variables in musculoskeletal healthcare research. *Journal of Musculoskeletal Surgery and Research*, 9(1), 49–57. https://doi.org/10.25259/JMSR_199_2024
- Ramsey, J. L. (2014). *Defining Sustainability*. 1049–1054. <https://doi.org/10.1007/s10806-014-9514-y>
- Rasool, A., Saeed, S., Ahmad, S., Iqbal, A., & Ali, A. (2024). Empowering community

- participation for sustainable rural water supply: Navigating water scarcity in Karak district Pakistan. *Groundwater for Sustainable Development*, 26, 101269. <https://doi.org/https://doi.org/10.1016/j.gsd.2024.101269>
- Ratumakin, P. A. K. L., Kuswardono, P. T., Heo, M. J., & Weo, Y. U. P. (2016). *Pengetahuan lokal dalam keberlanjutan pengelolaan air*.
- Rebello, L.-M., Finlayson, C. M., & Nagabhatla, N. (2009). Remote sensing and GIS for wetland inventory, mapping and change analysis. *Journal of Environmental Management*, 90(7), 2144–2153. <https://doi.org/https://doi.org/10.1016/j.jenvman.2007.06.027>
- Redjekiningrum, P., Kartiwa, B., & Misnawati. (2022). Optimization of Water Utilization through Identification of Distribution and Types of Water Harvest Infrastructure to Increase Agricultural Production, Study Case in Lampung Province. *Agromet*, 36(2), 60–69. <https://doi.org/10.29244/j.agromet.36.2.60-69>
- Ren, K., Huang, S., Huang, Q., Wang, H., Leng, G., Fang, W., & Li, P. (2020). Assessing the reliability, resilience and vulnerability of water supply system under multiple uncertain sources. *Journal of Cleaner Production*, 252, 119806. <https://doi.org/https://doi.org/10.1016/j.jclepro.2019.119806>
- Ritesh, E., Michele, C. De, Granata, G., & Biagini, C. (2022). Assessment of current reservoir sedimentation rate and storage capacity loss : An Italian overview. *Journal of Environmental Management*, 320(July), 115826. <https://doi.org/10.1016/j.jenvman.2022.115826>
- Saadi, Y. (2013). Post-construction problems of embung in lombok island and the operation and maintenance works. *Procedia Engineering*, 54, 648–660. <https://doi.org/10.1016/j.proeng.2013.03.059>
- Saruchera, D., & Lautze, J. (2019). Small reservoirs in africa: A review and synthesis to strengthen future investment. In *IWMI Working Papers* (Vol. 2019, Issue 189). International Water Management Institute. <https://doi.org/10.5337/2019.209>
- Satzinger, U., & Bachmann, D. (2024). Conceptual approach for a holistic low-flow risk analysis. *Hydrological Processes*, 38(6). <https://doi.org/10.1002/hyp.15217>
- Sayl, K., Adham, A., & Ritsema, C. J. (2020). A GIS-based multicriteria analysis in modeling optimum sites for rainwater harvesting. *Hydrology*, 7(3). <https://doi.org/10.3390/HYDROLOGY7030051>
- Sayl, K. N., Muhammad, N. S., & El-Shafie, A. (2017). Optimization of area–volume–elevation curve using GIS–SRTM method for rainwater harvesting in arid areas. *Environmental Earth Sciences*, 76(10), 368. <https://doi.org/10.1007/s12665-017-6699-1>
- Sethi, R., Kishor, B., Radha, P., & Deepak, K. (2015). Performance evaluation and hydrological trend detection of a reservoir under climate change condition. *Modeling Earth Systems and Environment*, 1(4), 1–10. <https://doi.org/10.1007/s40808-015-0035-0>
- Setiawan, E. (2022). *Simulation of Water Resources Utilization in the Jereweh Watershed , West Sumbawa Regency , Indonesia*. 8(11), 3001–3007.

<https://doi.org/10.22178/pos.87-4>

- Shahraki, F., Reddy, M. A., & Fazelbeigi, M. (2012). Remote sensing and evaluation of natural resources in Iran. *Life Science Journal*, 9(2), 68–72. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84874818880&partnerID=40&md5=85e9adb347051b2d0151df10dba0ec1e>
- Sikdar, S. (2020). Measures for sustainability. *Clean Technologies and Environmental Policy*, 22(2), 279–280. <https://doi.org/10.1007/s10098-020-01817-y>
- Silva-sánchez, N., & Cortizas, A. M. (2014). *Linking forest cover , soil erosion and mire hydrology to late-Holocene human activity and climate in NW Spain. X.* <https://doi.org/10.1177/0959683614526934>
- Singh, L. K., Jha, M. K., & Chowdary, V. M. (2017). Multi-criteria analysis and GIS modeling for identifying prospective water harvesting and artificial recharge sites for sustainable water supply. *Journal of Cleaner Production*, 142, 1436–1456. <https://doi.org/10.1016/j.jclepro.2016.11.163>
- Sirikaew, U., Seeboonruang, U., Tanachaichoksirikun, P., & Wattanasetpong, J. (2020). Impact of Climate Change on Soil Erosion in the Lam Phra Phloeng Watershed. *Water*, 1–19.
- Sivapriya, S., & Sherin, A. (2022). *Causes and Consequences of Dam Failures—Case Study* (pp. 155–159). https://doi.org/10.1007/978-981-16-5041-3_11
- Slichter, F. B. (1967). Influences on Selection of the Type of Dam. *Journal of the Soil Mechanics and Foundations Division*, 93(3), 1–8. <https://doi.org/10.1061/JSFEAQ.0000976>
- Smith, S. ., Renwick, W. ., Bartley, J. ., & Buddemeier, R. . (2002). Distribution and significance of small, artificial water bodies across the United States landscape. *Science of The Total Environment*, 299(1–3), 21–36. [https://doi.org/10.1016/S0048-9697\(02\)00222-X](https://doi.org/10.1016/S0048-9697(02)00222-X)
- Sondakh, S. R. (2024). Kebijakan Tradable Permit dalam Upaya untuk Mengatasi Kelangkaan Air di Indonesia. *Bina Hukum Lingkungan*, 4.
- Soundharajan, B., Adeloye, A. J., & Remesan, R. (2016). Evaluating the variability in surface water reservoir planning characteristics during climate change impacts assessment. *Journal of Hydrology*, 538, 625–639. <https://doi.org/10.1016/j.jhydrol.2016.04.051>
- Stavi, I., Siad, S. M. M., Kyriazopoulos, A. P. P., & Halbac-Cotoara-Zamfir, R. (2020). Water runoff harvesting systems for restoration of degraded rangelands: A review of challenges and opportunities. *Journal of Environmental Management*, 255(November 2019), 109823. <https://doi.org/10.1016/j.jenvman.2019.109823>
- Stephens, T., & FAO. (2010). Manual on small earth dams, A guide to siting, design and construction. In *FAO drainage and irrigation*. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS.
- Suni, Y. P. K., Sujono, J., & Istiarto. (2023). Identifying potential sites for rainwater harvesting ponds (embung) in Indonesia’s semi-arid region using GIS-based MCA techniques and satellite rainfall data. *PLoS ONE*, 18(6 June).

<https://doi.org/10.1371/journal.pone.0286061>

- Tanashu, M., Tadiwos, T., Kassaw, A., Admasu, S., Ezra, N., Long, T., Allen, L., Tennyson, E. M., Stranks, S., Terefe, T., & Ejigu, N. (2025). Performance Evaluation of Solar Water Pumping System for Small-Scale Irrigation in Ethiopia. *International Journal of Engineering Research in Africa*, 74, 83–100. <https://doi.org/10.4028/p-44yoAX>
- Teka, D., van Wesemael, B., Vanacker, V., Poesen, J., Hallet, V., Taye, G., Deckers, J., & Haregeweyn, N. (2013). Evaluating the performance of reservoirs in semi-arid catchments of Tigray: Tradeoff between water harvesting and soil and water conservation. *CATENA*, 110, 146–154. <https://doi.org/10.1016/j.catena.2013.06.001>
- Tessema, Y. M., Zimale, F. A., & Kebedew, M. G. (2024). Understanding sedimentation trends to enhance sustainable reservoir management in the Angereb reservoir, Upper Blue Nile Basin, Ethiopia. *Frontiers in Water*, 6(April). <https://doi.org/10.3389/frwa.2024.1387915>
- Thaler, T. (2021). Social justice in socio-hydrology—how we can integrate the two different perspectives. *Hydrological Sciences Journal*, 66(10), 1503–1512. <https://doi.org/10.1080/02626667.2021.1950916>
- Thom, A., & Kramer, O. (2010). Acceleration of DBSCAN-based clustering with reduced neighborhood evaluations. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 6359 LNAI, 195–202. https://doi.org/10.1007/978-3-642-16111-7_22
- Tian, W., Liu, X., Wang, K., Bai, P., & Liu, C. (2021). Estimation of reservoir evaporation losses for China. *Journal of Hydrology*, 596(November 2020), 126142. <https://doi.org/10.1016/j.jhydrol.2021.126142>
- Tiwari, K., Goyal, R., & Sarkar, A. (2018). GIS-based Methodology for Identification of Suitable Locations for Rainwater Harvesting Structures. *Water Resources Management*, 32(5), 1811–1825. <https://doi.org/10.1007/s11269-018-1905-9>
- Tobler, W. R. (1970). A Computer Movie Simulating Urban Growth in the Detroit Region. *Economic Geography*, 46(sup1), 234–240. <https://doi.org/10.2307/143141>
- Tonitto, C., & Riha, S. J. (2016). Planning and implementing small dam removals: lessons learned from dam removals across the eastern United States. *Sustainable Water Resources Management*, 2(4), 489–507. <https://doi.org/10.1007/s40899-016-0062-7>
- Turner, M. G. (2005). Landscape Ecology: What Is the State of the Science? *Annual Review of Ecology, Evolution, and Systematics*, 36(Volume 36, 2005), 319–344. <https://doi.org/https://doi.org/10.1146/annurev.ecolsys.36.102003.152614>
- Velychko, S. V., & Dupliak, O. V. (2023). Development of the hydrological regime of the Uzh River under backwater conditions to minimize the urban environment risks. *IOP Conference Series: Earth and Environmental Science*, 1254(1). <https://doi.org/10.1088/1755-1315/1254/1/012082>
- Verburg, P. H., Crossman, N., Ellis, E. C., Heinimann, A., Hostert, P., Mertz, O., Nagendra, H., Sikor, T., Erb, K.-H., Golubiewski, N., Grau, R., Grove, M., Konaté, S., Meyfroidt, P., Parker, D. C., Chowdhury, R. R., Shibata, H., Thomson, A., & Zhen, L. (2015). Land system science and sustainable development of the earth system: A global land

- project perspective. *Anthropocene*, 12, 29–41.
<https://doi.org/10.1016/j.ancene.2015.09.004>
- Villasís-Keever, M. Á., & Miranda-Novales, M. G. (2016). The research protocol IV: Study variables. *Revista Alergia Mexico*, 63(3), 303–310.
<https://doi.org/10.29262/ram.v63i3.199>
- Wajid, A. (2013). *Socio Economic Impact of Small Dams on Local Vicinity : a Case Study of Aza Khel Dam Peshawar*. 12(3). <https://doi.org/10.13140/RG.2.2.35738.49601>
- Walker, B., Holling, C. S., Carpenter, S. R., & Kinzig, A. (2004). Resilience , Adaptability and Transformability in Social – ecological Systems. *Ecology and Society*, 9(2).
- Walther, S. C., L. Reinholtz, A., Marcus, W. A., Reinholtz, A. L., & Marcus, W. A. (2017). The geographic distribution of small dams in Oregon using ecoregion and landform classification. *Physical Geography*, 38(3), 286–301.
<https://doi.org/10.1080/02723646.2017.1286224>
- Wang, L., Li, Y., Wu, J., An, Z., Suo, L., Ding, J., Li, S., & Wei, D. (2023). *Effects of the Rainfall Intensity and Slope Gradient on Soil Erosion and Nitrogen Loss on the Sloping Fields of Miyun Reservoir*.
- Wang, Y., Chen, L., Fu, B., & Lü, Y. (2014). Check dam sediments: An important indicator of the effects of environmental changes on soil erosion in the Loess Plateau in China. *Environmental Monitoring and Assessment*, 186(7), 4275–4287.
<https://doi.org/10.1007/s10661-014-3697-6>
- Wang, Y., & Solomon, J. (2019). Intrinsic and extrinsic operators for shape analysis. In *Handbook of Numerical Analysis* (Vol. 20, pp. 41–115).
<https://doi.org/10.1016/bs.hna.2019.08.003>
- Wang, Y., Tian, Y., & Cao, Y. (2021). Dam Siting: A Review. *Water*, 13(15), 2080.
<https://doi.org/10.3390/w13152080>
- Wenxin, X., Jie, C., Tianhua, S., Jong-Suk, K., Lei, G., & Joo-Heon, L. (2022). Cascading Model-Based Framework for the Sustainability Assessment of a Multipurpose Reservoir in a Changing Climate. *Journal of Water Resources Planning and Management*, 148(2), 5021029. [https://doi.org/10.1061/\(ASCE\)WR.1943-5452.0001501](https://doi.org/10.1061/(ASCE)WR.1943-5452.0001501)
- Widiyono, W. (2011). Konservasi Flora, Tanah Dan Sumberdaya Air Embung-Embung Di Timor Barat Provinsi Nusa Tenggara Timur (Studi Kasus 'Embung' Oemasi-Kupang Dan 'Embung' Leosama-Belu). In *Jurnal Teknologi Lingkungan* (Vol. 9, Issue 2). Badan Pengkajian dan Penerapan Teknologi (BPPT).
<https://doi.org/10.29122/jtl.v9i2.462>
- Wimmer, M. H., Pfeifer, N., & Hollaus, M. (2019). *Automatic Detection of Potential Dam Locations in Digital Terrain Models*.
- Wu, Q. (2018). *Peer-reviewed version available at Comprehensive Geographic Information Systems*. 2(September 2017), 140–157.
<https://doi.org/10.20944/preprints201709.0058.v1>
- Xiao, C., & Mohammaditab, M. (2024). Evaluation of the impact of hydrological changes on reservoir water management : A comparative analysis the CanESM5 model and the

optimized SWAT-SVR-LSTM. *Heliyon*, 10(18), e37208.
<https://doi.org/10.1016/j.heliyon.2024.e37208>

- Yang, X., Lu, X., Ran, L., & Tarolli, P. (2019). Geomorphometric assessment of the impacts of dam construction on river disconnectivity and flow regulation in the Yangtze basin. *Sustainability (Switzerland)*, 11(12). <https://doi.org/10.3390/SU11123427>
- Young, M. D. B., Gowing, J. W., Wyseure, G. C. L., & Hatibu, N. (2002). Parched-Thirst: Development and validation of a process-based model of rainwater harvesting. *Agricultural Water Management*, 55(2), 121–140. [https://doi.org/10.1016/S0378-3774\(01\)00187-1](https://doi.org/10.1016/S0378-3774(01)00187-1)
- Yuan, S., Li, Z., Chen, L., Li, P., & Zhang, Z. (2021). Effects of a check dam system on the runoff generation and concentration processes of a catchment on the Loess Plateau. *International Soil and Water Conservation Research*, xxxx. <https://doi.org/10.1016/j.iswcr.2021.06.007>
- Zhan, X., & Huang, M.-L. (2004). ArcCN-Runoff: an ArcGIS tool for generating curve number and runoff maps. *Environmental Modelling & Software*, 19(10), 875–879. <https://doi.org/https://doi.org/10.1016/j.envsoft.2004.03.001>
- Zhang, X., & She, D. (2021). Quantifying the sediment reduction efficiency of key dams in the Coarse Sandy Hilly Catchments region of the Yellow River basin, China. *Journal of Hydrology*, 602(April), 126721. <https://doi.org/10.1016/j.jhydrol.2021.126721>
- Zhang, Z., Chen, X., Huang, Y., & Zhang, Y. (2014). Effect of catchment properties on runoff coefficient in a karst area of southwest China. *Hydrological Processes*, 28(11), 3691–3702. <https://doi.org/https://doi.org/10.1002/hyp.9920>
- Zhang, Z., Liu, J., & Huang, J. (2020). Hydrologic impacts of cascade dams in a small headwater watershed under climate variability. *Journal of Hydrology*, 590(August), 125426. <https://doi.org/10.1016/j.jhydrol.2020.125426>
- Zhao, G., Gao, H., Kao, S., Voisin, N., & Naz, B. (2018). A modeling framework for evaluating the drought resilience of a surface water supply system under non-stationarity. *Journal of Hydrology*. <https://doi.org/10.1016/j.jhydrol.2018.05.037>
- Undang-Undang Republik Indonesia Nomor 17 Tahun 2019. *tentang Sumber Daya Air*. Jakarta: Kementerian Sekretariat Negara.
- Peraturan Pemerintah Republik Indonesia Nomor 30 Tahun 2024. *tentang Pengelolaan Sumber Daya Air*. Jakarta: Kementerian Sekretariat Negara.
- Peraturan Menteri PUPR Nomor 27/PRT/M/2015. *tentang Bendungan*. Jakarta: Kementerian Pekerjaan Umum dan Perumahan Rakyat.
- Undang-Undang Republik Indonesia Nomor 25 Tahun 2004. *tentang Sistem Perencanaan Pembangunan Nasional*. Jakarta: Badan Perencanaan Pembangunan Nasional.
- Peraturan Pemerintah Republik Indonesia Nomor 40 Tahun 2006. *tentang Tata Cara Penyusunan Rencana Pembangunan Nasional*. Jakarta: Badan Perencanaan Pembangunan Nasional.
- Instruksi Presiden Republik Indonesia Nomor 1 Tahun 2018. *tentang Percepatan Penyediaan Embung Kecil dan Bangunan Penampung Air Lainnya di Desa*. Jakarta:



Kementerian Sekretariat Negara.

Surat Edaran Menteri PUPR Nomor 7 Tahun 2018. *tentang Pedoman Pembangunan Embung Kecil dan Bangunan Penampung Air Lainnya di Desa*. Jakarta: Kementerian Pekerjaan Umum dan Perumahan Rakyat.