

## DAFTAR PUSTAKA

- Ahmadi, M.A., Suharyanto, Wulandari, D.A., Pambudi, T., 2024. Kajian Panjang Data dan Karakteristik Debit Bangkitan pada Pola Operasi Waduk Jragung. *Syntax Literate: Jurnal Ilmiah Indonesia* 9(10), 5588–5604. <https://doi.org/10.36418/syntax-literate.v9i10.16698>
- Allen, R.G., Pereira, L.S., Raes, D., Smith, M., 1998. Crop evapotranspiration: Guidelines for computing crop water requirements. *FAO Irrigation and Drainage Paper No. 56*. Food and Agriculture Organization of the United Nations (FAO), Rome
- Anaconda, Inc., 2026. Anaconda Navigator. Anaconda, Inc. <https://www.anaconda.com/>
- Badan Meteorologi, Klimatologi, dan Geofisika (BMKG), 2025. Data klimatologi Stasiun Meteorologi Maritim Tanjung Emas Semarang Tahun 1995–2024. BMKG, Semarang.
- Balai Besar Wilayah Sungai (BBWS) Pemali Juana, 2025. *Data hidrologi dan irigasi Daerah Irigasi Jragung*. BBWS Pemali Juana, Semarang.
- Balai Pengelolaan Sumber Daya Air (PSDA) Bodri Kuto, 2025. *Data curah hujan Daerah Irigasi Jragung tahun 1995–2024*. Balai PSDA Bodri Kuto, Jawa Tengah.
- Bhanage, V., Lee, H.S., Kubota, T., Pradana, R.P., Fajary, F.R., Arya Putra, I.D.G., Nimiya, H., 2023. City-Wise Assessment of Suitable CMIP6 GCM in Simulating Different Urban Meteorological Variables over Major Cities in Indonesia. *Climate* 11, 100. <https://doi.org/10.3390/cli11050100>
- Bjarke, N., Barsugli, J., Livneh, B., 2023. Ensemble of CMIP6 derived reference and potential evapotranspiration with radiative and advective components. *Scientific Data* 10, 417. <https://doi.org/10.1038/s41597-023-02290-0>
- Bokke, A.S., Gerasu, T.S., Demissie, T.A., Jiru, E.B., Bullo, T.A., Bayisa, Y.M., Gebryu, A.T., Dagne, D.T., 2026. Climate change on crop water requirements, irrigation, and scheduling in Jimma, Ethiopia: using CMIP6. *Water Science* 40, 2. <https://doi.org/10.1007/s44533-025-00010-8>
- Byun, S., Hamlet, A.F., 2025. Bias correction of climate model projections using improved empirical quantile mapping for climate change applications. *Journal of Hydrology* 661, 132567. <https://doi.org/10.1016/j.jhydrol.2025.132567>



Copernicus Climate Change Service (C3S), 2025. *Climate Data Store*. European Centre for Medium-Range Weather Forecasts (ECMWF). <https://cds.climate.copernicus.eu>

Devadarshini, E., Geethalakshmi, V., McDermid, S.P., Bhuvaneswari, K., Kumar, S.M., Sathyamoorthy, N.K., Senthilnathan, S., Senthilraja, K., Anandhi, V., 2025. A systematic review of climate downscaling and extremes in Coupled Model Intercomparison Project 6 (CMIP6). *Environmental Development* 56, 101280. <https://doi.org/10.1016/j.envdev.2025.101280>

Eyring, V., Bony, S., Meehl, G.A., Senior, C.A., Stevens, B., Stouffer, R.J., Taylor, K.E., 2016. Overview of the Coupled Model Intercomparison Project Phase 6 (CMIP6) experimental design and organization. *Geoscientific Model Development* 9, 1937–1958. <https://doi.org/10.5194/gmd-9-1937-2016>

Food and Agriculture Organization of the United Nations (FAO), 2009. *CROPWAT 8.0 for Windows: User Guide*. Land and Water Division, FAO, Rome

Gidden, M.J., Riahi, K., Smith, S.J., Fujimori, S., Luderer, G., Kriegler, E., van Vuuren, D.P., van den Berg, M., Feng, L., Klein, D., Calvin, K., Doelman, J.C., Frank, S., Fricko, O., Harmsen, M., Hasegawa, T., Havlik, P., Hilaire, J., Hoesly, R., Horing, J., Popp, A., Stehfest, E., Takahashi, K., 2019. Global emissions pathways under different socioeconomic scenarios for use in CMIP6: A dataset of harmonized emissions trajectories through the end of the century. *Geoscientific Model Development* 12, 1443–1475. <https://doi.org/10.5194/gmd-12-1443-2019>

Guo, D., Olesen, J.E., Manevski, K., Pullens, J.W.M., Li, A., Liu, E., 2023. Change trend and attribution analysis of reference evapotranspiration under climate change in Northern China. *Agronomy* 13, 3036. <https://doi.org/10.3390/agronomy13123036>

IPCC, 2021. *Climate Change 2021: The Physical Science Basis*. In: Masson-Delmotte, V., Zhai, P., Pirani, A., Connors, S.L., et al. (Eds.), *Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. <https://doi.org/10.1017/9781009157896>

Knoben, W.J.M., Freer, J.E., Woods, R.A., 2019. Technical note: Inherent benchmark or not? Comparing Nash–Sutcliffe and Kling–Gupta efficiency scores. *Hydrology and Earth System Sciences* 23(10), 4323–4331. <https://doi.org/10.5194/hess-23-4323-2019>



- Kurnianto, F.J., Sutopo, Y., 2020. Analisis kebutuhan air irigasi Daerah Irigasi Senjoyo Kabupaten Semarang. Prosiding Webinar Nasional Teknik Sipil, Fakultas Teknik Universitas Muhammadiyah Surakarta, 227–233
- Lee, T., Singh, V.P., 2019. Statistical Downscaling for Hydrological and Environmental Applications. CRC Press, Boca Raton, FL. <https://doi.org/10.1201/9780429459580>
- Meinshausen, M., Nicholls, Z.R.J., Lewis, J., Gidden, M.J., Vogel, E., Freund, M., Beyerle, U., Gessner, C., Nauels, A., Bauer, N., Canadell, J.G., Daniel, J.S., John, A., Krummel, P.B., Luderer, G., Meinshausen, N., Montzka, S., Rayner, P.J., Reimann, S., Smith, S.J., van den Berg, M., Velders, G.J.M., Vollmer, M.K., Wang, R.H.J., 2020. The shared socio-economic pathway (SSP) greenhouse gas concentrations and their extensions to 2500. Geoscientific Model Development 13, 3571–3605. <https://doi.org/10.5194/gmd-13-3571-2020>
- Misnawati, Apriyana, Y., & Ramadhani, F. 2021. *Projection of Water Availability for Paddy Fields Based on Climate Change Scenarios in Indonesia*. IOP Conference Series: Earth and Environmental Science, 648(1), 012162. <https://doi.org/10.1088/1755-1315/648/1/012162>
- Ngai, S.T., Tangang, F., Juneng, L., 2017. Bias correction of global and regional simulated daily precipitation and surface mean temperature over Southeast Asia using quantile mapping method. Atmospheric Research 187, 110–131. <https://doi.org/10.1016/j.atmosres.2016.12.009>
- Nouri, M., Veysi, S., 2024. CMIP6 multi-model ensemble projection of reference evapotranspiration using machine learning algorithms. Agricultural Water Management 306, 109190. <https://doi.org/10.1016/j.agwat.2024.109190>
- O'Neill, B.C., Tebaldi, C., van Vuuren, D.P., Eyring, V., Friedlingstein, P., Hurtt, G., Knutti, R., Kriegler, E., Lamarque, J.-F., Lowe, J., Meehl, G.A., Moss, R., Riahi, K., Sanderson, B.M., 2016. The Scenario Model Intercomparison Project (ScenarioMIP) for CMIP6. Geoscientific Model Development 9, 3461–3482. <https://doi.org/10.5194/gmd-9-3461-2016>
- Pahlevi, R.A., Herlina, N., 2018. Evaluasi dampak perubahan iklim terhadap produktivitas padi (*Oryza sativa* L.) di Kabupaten Malang. Jurnal Produksi Tanaman 6(8), 1929–1933.



- Pereira, L.S., Allen, R.G., Smith, M., Raes, D., 2015. Crop evapotranspiration estimation with FAO56: Past and future. *Agricultural Water Management* 147, 4–20. <https://doi.org/10.1016/j.agwat.2014.07.031>
- Putri, E.W.S., Harisuseno, D., Purwati, E., 2015. Evaluasi Kinerja Daerah Irigasi Jragung Kabupaten Demak. *Jurnal Teknik Pengairan* 6(1), 66–75.
- Rahman, M.N., Azim, S.A., Jannat, F.A., Rony, M.R.H., Ahmad, B., Sarkar, M.A.R., 2023. Quantification of rainfall, temperature, and reference evapotranspiration trend and their interrelationship in sub-climatic zones of Bangladesh. *Heliyon* 9, e19559. <https://doi.org/10.1016/j.heliyon.2023.e19559>
- Riahi, K., van Vuuren, D.P., Kriegler, E., Edmonds, J., O'Neill, B.C., Fujimori, S., Bauer, N., Calvin, K., Dellink, R., Fricko, O., Lutz, W., Popp, A., Crespo Cuaresma, J., KC, S., Leimbach, M., Jiang, L., Kram, T., Rao, S., Emmerling, J., Ebi, K., Hasegawa, T., Havlik, P., Humpenöder, F., da Silva, L.A., Smith, S., Stehfest, E., Bosetti, V., Eom, J., Gernaat, D., Masui, T., Rogelj, J., Strefler, J., Drouet, L., Krey, V., Luderer, G., Harmsen, M., Takahashi, K., Baumstark, L., Doelman, J.C., Kainuma, M., Klimont, Z., Marangoni, G., Lotze-Campen, H., Obersteiner, M., Tabeau, A., Tavoni, M., 2017. The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview. *Global Environmental Change* 42, 153–168. <https://doi.org/10.1016/j.gloenvcha.2016.05.009>
- Silva, N.D., Oliveira, A.S., 2024. Impact of climatic trends on the water demand and irrigation planning for annual crops in the São Francisco River basin, Brazil. *Physics and Chemistry of the Earth* 136, 103779. <https://doi.org/10.1016/j.pce.2024.103779>
- Soares, D., Paço, T.A., Rolim, J., 2023. Assessing Climate Change Impacts on Irrigation Water Requirements under Mediterranean Conditions—A Review of the Methodological Approaches Focusing on Maize Crop. *Agronomy* 13, 117. <https://doi.org/10.3390/agronomy13010117>
- Solgi, S., Petrie, P.R., Knowling, M.J., Horta, A., Hall, A., 2026. Climate change and irrigation water demand: a review of modelling approaches and biophysical considerations. *Journal of Hydrology* 677, 135946. <https://doi.org/10.1016/j.jhydrol.2026.135946>



- Song, Y.H., Chung, E.-S., 2025. Intercomparison of bias correction methods for precipitation of multiple GCMs across six continents. *Geoscientific Model Development* 18, 8017–8045. <https://doi.org/10.5194/gmd-18-8017-2025>
- Song, Y.H., Chung, E.-S., Shahid, S., Kim, Y., Kim, D., 2023. Development of global monthly dataset of CMIP6 climate variables for estimating evapotranspiration. *Scientific Data* 10, 568. <https://doi.org/10.1038/s41597-023-02475-7>
- Spyder Project Contributors, 2026. Spyder 6.1.0: The Scientific Python Development Environment. Spyder Project. <https://www.spyder-ide.org/>
- Supriyatna, M.I., Indriyani, D., Aziz, S.K., Immama, I.B., 2025. Optimasi Pemanfaatan Air Menggunakan Program Solver di Bendungan Jragung Semarang. *Ge-STRAM: Jurnal Perencanaan dan Rekayasa Sipil* 8(2), 124–131. <https://doi.org/10.25139/jprs.v8i2.10926>
- Tian, X., Dong, J., Jin, S., He, H., Yin, H., Chen, X., 2023. Climate change impacts on regional agricultural irrigation water use in semi-arid environments. *Agricultural Water Management* 281, 108239. <https://doi.org/10.1016/j.agwat.2023.108239>
- Triatmodjo, B., 2019. Hidrologi Terapan. Cetakan ke-7. Beta Offset, Yogyakarta.
- Williams, A.P., Abatzoglou, J.T., 2025. Climate change is increasing reference evapotranspiration and agricultural irrigation demand across North America. *Nature Water* 3, 521–530. <https://doi.org/10.1038/s44221-025-00459-0>
- Yue, S., Pilon, P., & Cavadias, G. 2002. *Power of the Mann–Kendall and Spearman’s rho tests for detecting monotonic trends in hydrological series*. *Journal of Hydrology*, 259(1–4), 254–271. [https://doi.org/10.1016/S0022-1694\(01\)00594-7](https://doi.org/10.1016/S0022-1694(01)00594-7)
- Zhang, S., Li, W., An, W., Hou, J., Hou, X., Tang, C., Gan, Z., 2023. Temporal and spatial evolutionary trends of regional extreme precipitation under different emission scenarios: Case study of the Jialing River Basin, China. *Journal of Hydrology* 617, 129156. <https://doi.org/10.1016/j.jhydrol.2023.129156>
- Zhao, Z., Wang, H., Wang, C., Li, W., Chen, H., Gong, S., 2020. Impacts of climatic change on reference crop evapotranspiration across different climatic zones of Ningxia at multi-time scales from 1957 to 2018. *Advances in Meteorology* 2020, 3156460. <https://doi.org/10.1155/2020/3156460>