

BIBLIOGRAPHY

- Abeysingha, N. S., & Rajapaksha, U. R. L. N. (2020). SPI-Based Spatiotemporal Drought over Sri Lanka. *Advances in Meteorology*, 2020, 1–10. <https://doi.org/10.1155/2020/9753279>
- Ahbari, A., Stour, L., Agoumi, A., & Serhir, N. (2018). Estimation of initial values of the HMS model parameters: Application to the basin of Bin El Ouidane (Azilal, Morocco). *Journal of Materials and Environmental Sciences*, 9(1), 305–317. <https://doi.org/10.26872/jmes.2018.9.1.34>
- Ali, M., Khan, S. J., Aslam, I., & Khan, Z. (2011). Simulation of the impacts of land-use change on surface runoff of Lai Nullah Basin in Islamabad, Pakistan. *Landscape and Urban Planning*, 102(4), 271–279. <https://doi.org/10.1016/j.landurbplan.2011.05.006>
- Annual Report*. (2014). Disaster Management Centre.
- Annual Report*. (2015). Disaster Management Centre.
- Annual Report*. (2017). Disaster Management Centre.
- Baddoo, T. D., Li, Z., Guan, Y., Boni, K. R. C., & Nooni, I. K. (2020). Data-Driven Modeling and the Influence of Objective Function Selection on Model Performance in Limited Data Regions. *International Journal of Environmental Research and Public Health*, 17(11), 4132. <https://doi.org/10.3390/ijerph17114132>
- Barker, L. J., Hannaford, J., Chiverton, A., & Svensson, C. (2016). From meteorological to hydrological drought using standardised indicators. *Hydrology and Earth System Sciences*, 20(6), 2483–2505. <https://doi.org/10.5194/hess-20-2483-2016>
- Beven, K. J. (2012). *Rainfall-runoff modelling: The primer* (2nd ed). Wiley-Blackwell.
- Bhuiyan, H., McNairn, H., Powers, J., & Merzouki, A. (2017). Application of HEC-HMS in a Cold Region Watershed and Use of RADARSAT-2 Soil Moisture in Initializing the Model. *Hydrology*, 4(1), 9. <https://doi.org/10.3390/hydrology4010009>
- Brown, J. F., Wardlow, B. D., Tadesse, T., Hayes, M. J., & Reed, B. C. (2008). The Vegetation Drought Response Index (VegDRI): A New Integrated Approach

Bibliography

- for Monitoring Drought Stress in Vegetation. *GIScience & Remote Sensing*, 45(1), 16–46. <https://doi.org/10.2747/1548-1603.45.1.16>
- Brutsaert, W., & Parlange, M. B. (1998). Hydrologic cycle explains the evaporation paradox. *Nature*, 396(6706), 30–30. <https://doi.org/10.1038/23845>
- Burke, E. J., Perry, R. H. J., & Brown, S. J. (2010). An extreme value analysis of UK drought and projections of change in the future. *Journal of Hydrology*, 388(1–2), 131–143. <https://doi.org/10.1016/j.jhydrol.2010.04.035>
- Byun, H.-R., & Wilhite, D. A. (1999). Objective Quantification of Drought Severity and Duration. *JOURNAL OF CLIMATE*, 12, 10.
- Cai, X., Shafiee-Jood, M., Apurv, T., Ge, Y., & Kokoszka, S. (2017). Key issues in drought preparedness: Reflections on experiences and strategies in the United States and selected countries. *Water Security*, 2, 32–42. <https://doi.org/10.1016/j.wasec.2017.11.001>
- Cancelliere, A., Mauro, G. D., Bonaccorso, B., & Rossi, G. (2007). Drought forecasting using the Standardized Precipitation Index. *Water Resources Management*, 21(5), 801–819. <https://doi.org/10.1007/s11269-006-9062-y>
- Chandrasekara, S. S. K., Kwon, H.-H., Vithanage, M., Obeysekera, J., & Kim, T.-W. (2021). Drought in South Asia: A Review of Drought Assessment and Prediction in South Asian Countries. *Atmosphere*, 12(3), 369. <https://doi.org/10.3390/atmos12030369>
- Chen, F.-W., & Liu, C.-W. (2012). Estimation of the spatial rainfall distribution using inverse distance weighting (IDW) in the middle of Taiwan. *Paddy and Water Environment*, 10(3), 209–222. <https://doi.org/10.1007/s10333-012-0319-1>
- Chen, X., Li, F., Li, J., & Feng, P. (2019). Three-dimensional identification of hydrological drought and multivariate drought risk probability assessment in the Luanhe River basin, China. *Theoretical and Applied Climatology*, 137(3–4), 3055–3076. <https://doi.org/10.1007/s00704-019-02780-5>
- Chow, V. T., Maidment, D. R., & Mays, L. W. (1988). *Applied Hydrology*. McGraw-Hill.
- Chow, V. T., Mays, L., & Maidment, D. R. (1988). *Applied Hydrology*. Tata McGraw-Hill Education.
- Cook, B. I., Smerdon, J. E., Seager, R., & Coats, S. (2014). Global warming and 21st century drying. *Climate Dynamics*, 43(9–10), 2607–2627. <https://doi.org/10.1007/s00382-014-2075-y>

- Cunderlik, J. (2003). *Hydrologic model selection for the CFCAS project: Assessment of water resources risk and vulnerability to changing climatic conditions*. Department of Civil and Environmental Engineering, The University of Western Ontario.
- Cydzik, K., & Hogue, T. S. (2009). Modeling Postfire Response and Recovery using the Hydrologic Engineering Center Hydrologic Modeling System (HEC-HMS). *JAWRA Journal of the American Water Resources Association*, 45(3), 702–714. <https://doi.org/10.1111/j.1752-1688.2009.00317.x>
- Dai, A. (2011). Drought under global warming: A review. *WIREs Climate Change*, 2(1), 45–65. <https://doi.org/10.1002/wcc.81>
- De Silva, M. M. G. T., Weerakoon, S. B., & Herath, S. (2014). Modeling of Event and Continuous Flow Hydrographs with HEC–HMS: Case Study in the Kelani River Basin, Sri Lanka. *Journal of Hydrologic Engineering*, 19(4), 800–806. [https://doi.org/10.1061/\(ASCE\)HE.1943-5584.0000846](https://doi.org/10.1061/(ASCE)HE.1943-5584.0000846)
- Deb, P., & Babel, S. (2016). Assessment of Impacts of Climate Change and Adaptation Measures for Maize Production in East Sikkim, India. *Journal of Hydrology and Meteorology*, 9(1), 15–27. <https://doi.org/10.3126/jhm.v9i1.15579>
- Deshpande, S., Nikam, B., Garg, V., & Mohapatra, M. (2019). *Assessment of Meteorological Droughts and their Impact on the Hydrological Regime of Godavari River Basin*.
- Devia, G. K., Ganasri, B. P., & Dwarakish, G. S. (2015). A Review on Hydrological Models. *Aquatic Procedia*, 4, 1001–1007. <https://doi.org/10.1016/j.aqpro.2015.02.126>
- Disaster Management Center. (2016). *Impacts of Disasters in Sri Lanka: 2016; The Consortium of Humanitarian Agencies (CHA): Colombo, Sri Lanka, 2016*.
- Douglas, E. M., Vogel, R. M., & Kroll, C. N. (2000). Trends in floods and low flows in the United States: Impact of spatial correlation. *Journal of Hydrology*, 16.
- Dracup, J. A., Lee, K. S., & Paulson, E. G. (1980). On the Definition of Droughts. *Water Resources Research*, 16(2), 297–302.
- Dutta, D., Kundu, A., Patel, N. R., Saha, S. K., & Siddiqui, A. R. (2015). Assessment of agricultural drought in Rajasthan (India) using remote sensing derived Vegetation Condition Index (VCI) and Standardized Precipitation Index (SPI). *The Egyptian Journal of Remote Sensing and Space Science*, 18(1), 53–63. <https://doi.org/10.1016/j.ejrs.2015.03.006>

Bibliography

- Eden, J. M., Widmann, M., Maraun, D., & Vrac, M. (2014). Comparison of GCM- and RCM-simulated precipitation following stochastic postprocessing. *Journal of Geophysical Research: Atmospheres*, 119(19), 11,040-11,053. <https://doi.org/10.1002/2014JD021732>
- Gao, L., & Zhang, Y. (2016). Spatio-temporal variation of hydrological drought under climate change during the period 1960–2013 in the Hexi Corridor, China. *Journal of Arid Land*, 8(2), 157–171. <https://doi.org/10.1007/s40333-015-0022-3>
- Gao, X., Zhao, Q., Zhao, X., Wu, P., Pan, W., Gao, X., & Sun, M. (2017). Temporal and spatial evolution of the standardized precipitation evapotranspiration index (SPEI) in the Loess Plateau under climate change from 2001 to 2050. *Science of The Total Environment*, 595, 191–200. <https://doi.org/10.1016/j.scitotenv.2017.03.226>
- Garcia, F., Folton, N., & Oudin, L. (2017). Which objective function to calibrate rainfall-runoff models for low-flow index simulations? *Hydrological Sciences Journal*, 62(7), 1149–1166. <https://doi.org/10.1080/02626667.2017.1308511>
- Gautam, M. R., & Acharya, K. (2012). Streamflow trends in Nepal. *Hydrological Sciences Journal*, 57(2), 344–357. <https://doi.org/10.1080/02626667.2011.637042>
- Gebre, S. L. (2015). Application of the HEC-HMS Model for Runoff Simulation of Upper Blue Nile River Basin. *Journal of Waste Water Treatment & Analysis*, 06(02). <https://doi.org/10.4172/2157-7587.1000199>
- Gerber, N., & Mirzabaev, A. (2017). *Benefits of action and costs of inaction: Drought mitigation and preparedness – a literature review*. 24.
- Giorgi, F., & Gutowski, W. J. (2016). Coordinated Experiments for Projections of Regional Climate Change. *Current Climate Change Reports*, 2(4), 202–210. <https://doi.org/10.1007/s40641-016-0046-6>
- Gleick, P. H. (1987). *REGIONAL HYDROLOGIC CONSEQUENCES OF INCREASES IN ATMOSPHERIC CO₂ AND OTHER TRACE GASES*. 24.
- Gocic, M., & Trajkovic, S. (2013). Analysis of changes in meteorological variables using Mann-Kendall and Sen's slope estimator statistical tests in Serbia. *Global and Planetary Change*, 100, 172–182. <https://doi.org/10.1016/j.gloplacha.2012.10.014>
- Green, I. R. A., & Stephenson, D. (1986). Criteria for comparison of single event models. *Hydrological Sciences Journal*, 31(3), 395–411. <https://doi.org/10.1080/02626668609491056>

- Gupta, H. V., Beven, K. J., & Wagener, T. (2005). Model Calibration and Uncertainty Estimation. In M. G. Anderson & J. J. McDonnell (Eds.), *Encyclopedia of Hydrological Sciences* (p. hsa138). John Wiley & Sons, Ltd. <https://doi.org/10.1002/0470848944.hsa138>
- Halwatura, D., & Najim, M. M. M. (2013). Application of the HEC-HMS model for runoff simulation in a tropical catchment. *Environmental Modelling & Software*, 46, 155–162. <https://doi.org/10.1016/j.envsoft.2013.03.006>
- Hamed, K. H., & Ramachandra Rao, A. (1998). A modified Mann-Kendall trend test for autocorrelated data. *Journal of Hydrology*, 204(1–4), 182–196. [https://doi.org/10.1016/S0022-1694\(97\)00125-X](https://doi.org/10.1016/S0022-1694(97)00125-X)
- He, Z., Wang, Z., Suen, C. J., & Ma, X. (2013). Hydrologic sensitivity of the Upper San Joaquin River Watershed in California to climate change scenarios. *Hydrology Research*, 44(4), 723–736. <https://doi.org/10.2166/nh.2012.441>
- Herath, M. H. B. C. W., & Wijesekera, N. T. S. (2021). *Evaluation of HEC-HMS Model for Water Resources Management in Maha Oya Basin in Sri Lanka*.
- Hewitson, B. C., & Crane, R. G. (1996). *Climate downscaling: Techniques and application* (pp. 85–95). Climate Research 7.
- Hidalgo, H. G., Amador, J. A., Alfaro, E. J., & Quesada, B. (2013). Hydrological climate change projections for Central America. *Journal of Hydrology*, 495, 94–112. <https://doi.org/10.1016/j.jhydrol.2013.05.004>
- Hipel, K. W., & McLeod, A. I. (1994). *Time Series Modelling of Water Resources and Environmental Systems* (1st ed., Vol. 45).
- Hisdal, H., & Tallaksen, L. M. (2003). Estimation of regional meteorological and hydrological drought characteristics: A case study for Denmark. *Journal of Hydrology*, 281, 230–247.
- Hoerling, M., Eischeid, J., Perlitz, J., Quan, X., Zhang, T., & Pegion, P. (2012). On the Increased Frequency of Mediterranean Drought. *Journal of Climate*, 25(6), 2146–2161. <https://doi.org/10.1175/JCLI-D-11-00296.1>
- Hussain, Md., & Mahmud, I. (2019). pyMannKendall: A python package for non parametric Mann Kendall family of trend tests. *Journal of Open Source Software*, 4(39), 1556. <https://doi.org/10.21105/joss.01556>
- Ines, A. V. M., & Hansen, J. W. (2006). Bias correction of daily GCM rainfall for crop simulation studies. *Agricultural and Forest Meteorology*, 138(1–4), 44–53. <https://doi.org/10.1016/j.agrformet.2006.03.009>

Bibliography

- International Labour Organization. (2018). *Assessment of the effects of annual droughts and floods on child labour(hazardous and non-hazardous) and child welfare.*
- IPCC. (2007). *IPCC, (2007). Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., Qin, D., Manning, M., Chen, Z., Marquis, M., Averyt, K.B., Tignor, M., & Miller, H.L. (Eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.*
- Jain, V. K., Pandey, R. P., Jain, M. K., & Byun, H.-R. (2015a). Comparison of drought indices for appraisal of drought characteristics in the Ken River Basin. *Weather and Climate Extremes*, 8, 1–11. <https://doi.org/10.1016/j.wace.2015.05.002>
- Jain, V. K., Pandey, R. P., Jain, M. K., & Byun, H.-R. (2015b). Comparison of drought indices for appraisal of drought characteristics in the Ken River Basin. *Weather and Climate Extremes*, 8, 1–11. <https://doi.org/10.1016/j.wace.2015.05.002>
- Jajarmizadeh, M., Harun, S., & Salarpour, M. (2012). *A review on theoretical consideration and types of models in hydrology.*
- Jia, Y., Zhang, B., & Ma, B. (2018a). Daily SPEI Reveals Long-term Change in Drought Characteristics in Southwest China. *Chinese Geographical Science*, 28(4), 680–693. <https://doi.org/10.1007/s11769-018-0973-3>
- Jia, Y., Zhang, B., & Ma, B. (2018b). Daily SPEI Reveals Long-term Change in Drought Characteristics in Southwest China. *Chinese Geographical Science*, 28(4), 680–693. <https://doi.org/10.1007/s11769-018-0973-3>
- Johnson, F., & Sharma, A. (2010). A Comparison of Australian Open Water Body Evaporation Trends for Current and Future Climates Estimated from Class A Evaporation Pans and General Circulation Models. *Journal of Hydrometeorology*, 11(1), 105–121. <https://doi.org/10.1175/2009JHM1158.1>
- Kamali, B., Mousavi, S. J., & Abbaspour, K. C. (2012). Automatic calibration of HEC-HMS using single-objective and multi-objective PSO algorithms. *Hydrol. Process.* <https://doi.org/10.1002/hyp.9510>
- Karl, ThomasR., & Riebsame, WilliamE. (1989). The impact of decadal fluctuations in mean precipitation and temperature on runoff: A sensitivity study over the United States. *Climatic Change*, 15(3). <https://doi.org/10.1007/BF00240466>
- KatiPoğlu, O. M., & Acar, R. (2019). *Evaluation of hydrologic droughts by using Standardized Runoff Index (SRI).* 9.

- Kendall, M. G. (1955). *Rank Correlation Methods*. Charles Griffin & Co. Ltd.
- Khan, M. I., Zhu, X., Jiang, X., Saddique, Q., Saifullah, M., Niaz, Y., & Sajid, M. (2021). Projection of Future Drought Characteristics under Multiple Drought Indices. *Water*, 13(9), 1238. <https://doi.org/10.3390/w13091238>
- Krause, P., Boyle, D. P., & Bäse, F. (2005). Comparison of different efficiency criteria for hydrological model assessment. *Advances in Geosciences*, 5, 89–97. <https://doi.org/10.5194/adgeo-5-89-2005>
- Krishnan, R., Sanjay, J., Gnanaseelan, C., Mujumdar, M., Kulkarni, A., & Chakraborty, S. (Eds.). (2020). *Assessment of Climate Change over the Indian Region: A Report of the Ministry of Earth Sciences (MoES), Government of India*. Springer Singapore. <https://doi.org/10.1007/978-981-15-4327-2>
- Kumar, N., Murthy, C. S., Sesha Sai, M. V. R., & Roy, P. S. (2012). Spatiotemporal analysis of meteorological drought variability in the Indian region using standardized precipitation index. *Meteorological Applications*, 19(2), 256–264. <https://doi.org/10.1002/met.277>
- Kumar, P., Shah, S. F., Uqaili, M. A., Kumar, L., & Zafar, R. F. (2021). Forecasting of Drought: A Case Study of Water-Stressed Region of Pakistan. *Atmosphere*, 12(10), 1248. <https://doi.org/10.3390/atmos12101248>
- Leander, R., & Buishand, T. A. (2007). Resampling of regional climate model output for the simulation of extreme river flows. *Journal of Hydrology*, 332(3–4), 487–496. <https://doi.org/10.1016/j.jhydrol.2006.08.006>
- Lenderink, G., Buishand, A., & van Deursen, W. (2007). Estimates of future discharges of the river Rhine using two scenario methodologies: Direct versus delta approach. *Hydrology and Earth System Sciences*, 11(3), 1145–1159. <https://doi.org/10.5194/hess-11-1145-2007>
- Li, M., Zhang, T., Li, J., & Feng, P. (2019). Hydrological Drought Forecasting Incorporating Climatic and Human-Induced Indices. *Weather and Forecasting*, 34(5), 1365–1376. <https://doi.org/10.1175/WAF-D-19-0029.1>
- Li, Zhang, F., Jing, Y., Liu, Y., & Sun, G. (2017). Response of evapotranspiration to changes in land use and land cover and climate in China during 2001–2013. *Science of The Total Environment*, 596–597, 256–265. <https://doi.org/10.1016/j.scitotenv.2017.04.080>
- Lin, Z., & Shelton, S. (2020). Interdecadal Change of Drought Characteristics in Mahaweli River Basin of Sri Lanka and the Associated Atmospheric Circulation Difference. *Frontiers in Earth Science*, 8, 306. <https://doi.org/10.3389/feart.2020.00306>

Bibliography

- Liu, C., Yang, C., Yang, Q., & Wang, J. (2021). *Spatiotemporal drought analysis by the standardized precipitation index (SPI) and standardized precipitation evapotranspiration index (SPEI) in Sichuan Province, China.*
- Lyon, B., Zubair, L., Ralapanawe, V., & Yahiya, Z. (2009). Finescale Evaluation of Drought in a Tropical Setting: Case Study in Sri Lanka. *Journal of Applied Meteorology and Climatology*, 48(1), 77–88. <https://doi.org/10.1175/2008JAMC1767.1>
- Madhushankha, J. M. L., & Wijesekera, N. T. S. (2021). Application of HEC-HMS Model to Estimate Daily Streamflow in Badddegama Watershed of Gin Ganga Basin Sri Lanka. *Engineer: Journal of the Institution of Engineers, Sri Lanka*, 54(1), 89. <https://doi.org/10.4038/engineer.v54i1.7438>
- Manesha, S., Vimukthini, S., & Premalal, K. H. M. S. (2015). *Develop drought monitoring in Sri Lanka using Standard Precipitation Index (SPI).* 1, 64–71.
- Mann, H. B. (1945). Nonparametric Tests Against Trend. *Econometrica*, 13(3), 245. <https://doi.org/10.2307/1907187>
- Marlier, M. E., Xiao, M., Engel, R., Livneh, B., Abatzoglou, J. T., & Lettenmaier, D. P. (2017). The 2015 drought in Washington State: A harbinger of things to come? *Environmental Research Letters*, 12(11), 114008. <https://doi.org/10.1088/1748-9326/aa8fde>
- McEnroe, B. M. (2010). *Guidelines for Continuous Simulation of Streamflow in Johnson County, Kansas, with HEC-HMS.* 42.
- McKee, T. B., Doesken, N. J., & Kleist, J. (1993). *The relationship of drought frequency an duration to time scales.* 6.
- McMahon, E. T. A., & Arenas, A. D. (1982). *Methods of computation of low streamflow.* 111.
- Mearns, L. O., Giorgi, F., Whetton, P., Pabon, D., Hulme, M., & Lal, M. (2003). *Guidelines for Use of Climate Scenarios Developed from Regional Climate Model Experiments.* 38.
- Meenu, R., Rehana, S., & Mujumdar, P. P. (2013). Assessment of hydrologic impacts of climate change in Tunga-Bhadra river basin, India with HEC-HMS and SDSM: HYDROLOGIC IMPACTS OF CLIMATE CHANGE. *Hydrological Processes*, 27(11), 1572–1589. <https://doi.org/10.1002/hyp.9220>
- Milly, P. C. D., Betancourt, J., Falkenmark, M., Hirsch, R. M., Kundzewicz, Z. W., Lettenmaier, D. P., & Stouffer, R. J. (2008). Stationarity Is Dead: Whither

- Water Management? *Science*, 319(5863), 573–574.
<https://doi.org/10.1126/science.1151915>
- Mishra, A. K., & Singh, V. P. (2010). A review of drought concepts. *Journal of Hydrology*, 391, 202–216. <https://doi.org/10.1016/j.jhydrol.2010.07.012>
- Modarres, R. (2007). Streamflow drought time series forecasting. *Stochastic Environmental Research and Risk Assessment*, 21(3), 223–233. <https://doi.org/10.1007/s00477-006-0058-1>
- Modarres, R., & Silva, V. (2007). Rainfall trends in arid and semi-arid regions of Iran. *Journal of Arid Environments*, 70(2), 344–355. <https://doi.org/10.1016/j.jaridenv.2006.12.024>
- Morid, S., Smakhtin, V., & Bagherzadeh, K. (2007). Drought forecasting using artificial neural networks and time series of drought indices. *International Journal of Climatology*, 27(15), 2103–2111. <https://doi.org/10.1002/joc.1498>
- Muangthong, S., Chaowiwat, W., Sarinnapakorn, K., & Chaibandit, K. (2020). *Prediction of Future Drought in Thailand under Changing Climate by Using SPI and SPEI Indices*. 6(2), 10.
- Nash, J. E., & Sutcliffe, J. V. (1970). *River flow forecasting through conceptual models, Part I - A discussion of principles*.
- Orellana, B., Pechlivanidis, I. G., McIntyre, N., Wheater, H. S., & Wagener, T. (2008). *A Toolbox for the Identification of Parsimonious Semi-Distributed Rainfall-Runoff Models: Application to the Upper Lee Catchment*. 8.
- Panagoulia, D. (1992). Impacts of GISS-modelled climate changes on catchment hydrology. *Hydrological Sciences Journal*, 37(2), 141–163. <https://doi.org/10.1080/02626669209492574>
- Pandey, R. P., Dash, B. B., Mishra, S. K., & Singh, R. (2008). Study of indices for drought characterization in KBK districts in Orissa (India). *Hydrological Processes*, 22(12), 1895–1907. <https://doi.org/10.1002/hyp.6774>
- Partal, T., & Kahya, E. (2006). Trend analysis in Turkish precipitation data. *Hydrological Processes*, 20(9), 2011–2026. <https://doi.org/10.1002/hyp.5993>
- Pechlivanidis, I., Jackson, B. M., McIntyre, N. R., & Wheater, H. S. (2013). Catchment scale hydrological modelling: A review of model types, calibration approaches and uncertainty analysis methods in the context of recent developments in technology and applications. *Global NEST Journal*, 13(3), 193–214. <https://doi.org/10.30955/gnj.000778>

Bibliography

- Salvadore, E., Bronders, J., & Batelaan, O. (2015). Hydrological modelling of urbanized catchments: A review and future directions. *Journal of Hydrology*, 529, 62–81. <https://doi.org/10.1016/j.jhydrol.2015.06.028>
- Sanjay, J., Krishnan, R., Shrestha, A. B., Rajbhandari, R., & Ren, G.-Y. (2017). Downscaled climate change projections for the Hindu Kush Himalayan region using CORDEX South Asia regional climate models. *Advances in Climate Change Research*, 8(3), 185–198. <https://doi.org/10.1016/j.accre.2017.08.003>
- Sattar, M. N., & Kim, T.-W. (2018). Probabilistic characteristics of lag time between meteorological and hydrological droughts using a Bayesian model. *Terrestrial, Atmospheric and Oceanic Sciences*, 29(6), 709–720. <https://doi.org/10.3319/TAO.2018.07.01.01>
- Scanlon, T. M., Caylor, K. K., Levin, S. A., & Rodriguez-Iturbe, I. (2007). Positive feedbacks promote power-law clustering of Kalahari vegetation. *Nature*, 449(7159), 209–212. <https://doi.org/10.1038/nature06060>
- Schmidli, J., Frei, C., & Vidale, P. L. (2006). Downscaling from GCM precipitation: A benchmark for dynamical and statistical downscaling methods. *International Journal of Climatology*, 26(5), 679–689. <https://doi.org/10.1002/joc.1287>
- Seager, R., Kushnir, Y., Ting, M., Cane, M., Naik, N., & Miller, J. (2008). Would Advance Knowledge of 1930s SSTs Have Allowed Prediction of the Dust Bowl Drought?*. *Journal of Climate*, 21(13), 3261–3281. <https://doi.org/10.1175/2007JCLI2134.1>
- Seager, R., Liu, H., Henderson, N., Simpson, I., Kelley, C., Shaw, T., Kushnir, Y., & Ting, M. (2014). Causes of Increasing Aridification of the Mediterranean Region in Response to Rising Greenhouse Gases*. *Journal of Climate*, 27(12), 4655–4676. <https://doi.org/10.1175/JCLI-D-13-00446.1>
- Sen, P. K. (1968). Estimates of the Regression Coefficient Based on Kendall's Tau. *Journal of the American Statistical Association*, 63(324), 1379–1389. <https://doi.org/10.1080/01621459.1968.10480934>
- Seneviratne, S. I., Corti, T., Davin, E. L., Hirschi, M., Jaeger, E. B., Lehner, I., Orlowsky, B., & Teuling, A. J. (2010). Investigating soil moisture–climate interactions in a changing climate: A review. *Earth-Science Reviews*, 99(3–4), 125–161. <https://doi.org/10.1016/j.earscirev.2010.02.004>
- Servat, E., & Dezetter, A. (1991). Selection of calibration objective functions in the context of rainfall-runoff modelling in a Sudanese savannah area. *Hydrological Sciences Journal*, 36(4), 307–330. <https://doi.org/10.1080/02626669109492517>

- Shah, R., Bharadiya, N., & Manekar, V. (2015). Drought Index Computation Using Standardized Precipitation Index (SPI) Method For Surat District, Gujarat. *Aquatic Procedia*, 4, 1243–1249. <https://doi.org/10.1016/j.aqpro.2015.02.162>
- Shrestha, S., Deb, P., & Bui, T. T. T. (2016). Adaptation strategies for rice cultivation under climate change in Central Vietnam. *Mitigation and Adaptation Strategies for Global Change*, 21(1), 15–37. <https://doi.org/10.1007/s11027-014-9567-2>
- Shrestha, S., Shrestha, M., & Babel, M. S. (2017). Assessment of climate change impact on water diversion strategies of Melamchi Water Supply Project in Nepal. *Theoretical and Applied Climatology*, 128(1–2), 311–323. <https://doi.org/10.1007/s00704-015-1713-6>
- Shukla, S., & Wood, A. W. (2008). Use of a standardized runoff index for characterizing hydrologic drought. *Geophysical Research Letters*, 35(2), L02405. <https://doi.org/10.1029/2007GL032487>
- Sirisena, T. A. J. G., Maskey, S., Bamunawala, J., & Ranasinghe, R. (2021). Climate Change and Reservoir Impacts on 21st-Century Streamflow and Fluvial Sediment Loads in the Irrawaddy River, Myanmar. *Frontiers in Earth Science*, 9, 644527. <https://doi.org/10.3389/feart.2021.644527>
- Smakhtin, V., & Hughes, D. A. (2004). *Review, automated estimation and analyses of drought indices in South Asia*. International Water Management Institute.
- Smakhtin, V., Hughes, D. A., & International Water Management Institute. (2004). *Review, automated estimation and analyses of drought indices in South Asia*. International Water Management Institute.
- Smakhtin, V. U., & Hughes, D. A. (2004). *Review, Automated Estimation and Analyses of Drought Indices in South Asia*. 32.
- Sobral, B. S., Oliveira-Júnior, J. F., de Gois, G., & Pereira-Júnior, E. R. (2018). Spatial variability of SPI and RDI_{st} drought indices applied to intense episodes of drought occurred in Rio de Janeiro State, Brazil. *International Journal of Climatology*, 38(10), 3896–3916. <https://doi.org/10.1002/joc.5542>
- Tabari, H., Somee, B. S., & Zadeh, M. R. (2011). Testing for long-term trends in climatic variables in Iran. *Atmospheric Research*, 100(1), 132–140. <https://doi.org/10.1016/j.atmosres.2011.01.005>
- Teutschbein, C., & Seibert, J. (2010a). Regional Climate Models for Hydrological Impact Studies at the Catchment Scale: A Review of Recent Modeling Strategies: Regional climate models for hydrological impact studies.

Bibliography

- Geography Compass*, 4(7), 834–860. <https://doi.org/10.1111/j.1749-8198.2010.00357.x>
- Teutschbein, C., & Seibert, J. (2010b). Regional Climate Models for Hydrological Impact Studies at the Catchment Scale: A Review of Recent Modeling Strategies: Regional climate models for hydrological impact studies. *Geography Compass*, 4(7), 834–860. <https://doi.org/10.1111/j.1749-8198.2010.00357.x>
- Tigkas, D. (2015). *The RDI as a composite climatic index*. 7.
- Todini, E. (1996). The ARNO rainfall—Runoff model. *Journal of Hydrology*, 175(1–4), 339–382. [https://doi.org/10.1016/S0022-1694\(96\)80016-3](https://doi.org/10.1016/S0022-1694(96)80016-3)
- Trenberth, K. E., Dai, A., van der Schrier, G., Jones, P. D., Barichivich, J., Briffa, K. R., & Sheffield, J. (2014). Global warming and changes in drought. *Nature Climate Change*, 4(1), 17–22. <https://doi.org/10.1038/nclimate2067>
- Trenberth, K. E., & Shea, D. J. (2005). Relationships between precipitation and surface temperature: PRECIPITATION AND TEMPERATURE RELATIONS. *Geophysical Research Letters*, 32(14), n/a-n/a. <https://doi.org/10.1029/2005GL022760>
- Tsakiris, G., Nalbantis, I., Pangalou, D., Tigkas, D., & Vangelis, H. (2008). *Drought meteorological monitoring network design for the Reconnaissance Drought Index (RDI)*. 80, 7.
- Tsakiris, G., & Vangelis, H. (2005). *Establishing a Drought Index Incorporating Evapotranspiration*. 9.
- USACE. (2000). *HEC-HMS Technical Reference Manual*. 158.
- USACE. (2018). *Hydrologic Modeling System HEC-HMS User's Manual* (p. 640). USACE.
- Van Loon, A. F. (2015). Hydrological drought explained. *WIREs Water*, 2(4), 359–392. <https://doi.org/10.1002/wat2.1085>
- Verma, A. K., Jha, M. K., & Mahana, R. K. (2010). Evaluation of HEC-HMS and WEPP for simulating watershed runoff using remote sensing and geographical information system. *Paddy Water Environ*, 14.
- Vicente-Serrano, S. M., Beguería, S., & López-Moreno, J. I. (2010). A Multiscalar Drought Index Sensitive to Global Warming: The Standardized Precipitation Evapotranspiration Index. *Journal of Climate*, 23(7), 1696–1718. <https://doi.org/10.1175/2009JCLI2909.1>

- Vu, M. T., Vo, N. D., Gourbesville, P., Raghavan, S. V., & Liong, S.-Y. (2017). Hydro-meteorological drought assessment under climate change impact over the Vu Gia–Thu Bon river basin, Vietnam. *Hydrological Sciences Journal*, 62(10), 1654–1668. <https://doi.org/10.1080/02626667.2017.1346374>
- Wale, A., Rientjes, T. H. M., Gieske, A. S. M., & Getachew, H. A. (2009). Ungauged catchment contributions to Lake Tana's water balance. *Hydrological Processes*, n/a-n/a. <https://doi.org/10.1002/hyp.7284>
- Wang, L., Ranasinghe, R., Maskey, S., van Gelder, P. H. A. J. M., & Vrijling, J. K. (2016). Comparison of empirical statistical methods for downscaling daily climate projections from CMIP5 GCMs: A case study of the Huai River Basin, China: COMPARING EMPIRICAL STAISTICAL DOWNSCALING METHODS. *International Journal of Climatology*, 36(1), 145–164. <https://doi.org/10.1002/joc.4334>
- Westerling, A. L., Hidalgo, H. G., Cayan, D. R., & Swetnam, T. W. (2006). Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity. *Science*, 313(5789), 940–943. <https://doi.org/10.1126/science.1128834>
- Wilby, R., Charles, S., Zorita, E., Timbal, B., Whetton, P., & Mearns, L. (2004). *Guidelines for Use of Climate Scenarios Developed from Statistical Downscaling Methods*. 27.
- Wilhite, D. A., & Glantz, M. H. (1985). Understanding: The Drought Phenomenon: The Role of Definitions. *Water International*, 10(3), 111–120. <https://doi.org/10.1080/02508068508686328>
- Xiang, Y., Wang, Y., Chen, Y., Bai, Y., Zhang, L., & Zhang, Q. (2020). Hydrological Drought Risk Assessment Using a Multidimensional Copula Function Approach in Arid Inland Basins, China. *Water*, 12(7), 1888. <https://doi.org/10.3390/w12071888>
- Xu, K., Qin, G., Niu, J., Wu, C., Hu, B. X., Huang, G., & Wang, P. (2019). Comparative analysis of meteorological and hydrological drought over the Pearl River basin in southern China. *Hydrology Research*, 50(1), 301–318. <https://doi.org/10.2166/nh.2018.178>
- Yener, M., Sorman, A., Sensoy, A., & Gezgin, T. (2007). *Modeling studies with Hec-Hms and runoff scenarios in Yuvacik basin, Turkiye*. International Congress on River Management.
- Yue, S., Pilon, P., Phinney, B., & Cavadias, G. (2002). The influence of autocorrelation on the ability to detect trend in hydrological series. *Hydrological Processes*, 16(9), 1807–1829. <https://doi.org/10.1002/hyp.1095>

Bibliography

- Zarch, M. A., Malekinezhad, H., Mobin, M. H., Dastorani, M. T., & Kousari, M. R. (2011). Drought Monitoring by Reconnaissance Drought Index (RDI) in Iran. *Water Resources Management*, 25(13), 3485–3504. <https://doi.org/10.1007/s11269-011-9867-1>
- Zarch, M. A., Sivakumar, B., & Sharma, A. (2015a). Droughts in a warming climate: A global assessment of Standardized precipitation index (SPI) and Reconnaissance drought index (RDI). *Journal of Hydrology*, 526, 183–195. <https://doi.org/10.1016/j.jhydrol.2014.09.071>
- Zarch, M. A., Sivakumar, B., & Sharma, A. (2015b). Droughts in a warming climate: A global assessment of Standardized precipitation index (SPI) and Reconnaissance drought index (RDI). *Journal of Hydrology*, 526, 183–195. <https://doi.org/10.1016/j.jhydrol.2014.09.071>