

## **6. REFERENCES**

- Al-lafta, H. S., Al-tawash, B. S., & Al-baldawi, B. A. (2013). Applying the “ abcd ” Monthly Water Balance Model for Some Regions in the United States, 25
- Asadi, A. (2013). The Comparison of Lumped and Distributed Models for Estimating Flood Hydrograph (Study Area : kabkian Basin ) Arash Asadi, 1(2), 7–13.
- Beven, K. (2001). How far can we go in distributed hydrological modelling ?, 5(1), 1–12.
- Chiew, F. H. S., Zheng, H., & Potter, N. J. (2018). Rainfall-Runoff Modelling Considerations to Predict Streamflow Characteristics in Ungauged Catchments and under Climate Change, 7–9. <https://doi.org/10.3390/w10101319>
- Döll, P., Jiménez-Cisneros, B., Oki, T., Arnell, N. W., Benito, G., Cogley, J. G., ... Nishijima, A. (2014). Integrating risks of climate change into water management. *Hydrological Sciences Journal*, 60(1), 4–13. <https://doi.org/10.1080/02626667.2014.967250>
- DULAL, K. N., SHRESTHA, S., BASTOLA, S., KAZAMA, F., ISHIDAIRA, H., & TAKEUCHI, K. (2011). the Assessment of Spatial Transferability of a Distributed Hydrological Model Parameters in Different Physiographic Regions of Nepal. *Proceedings of Hydraulic Engineering*, 51, 37–42. <https://doi.org/10.2208/prohe.51>.
- Duran-Ballen, S., Shrestha, M., Wang, L., Yoshimura, K., & Koike, T. (2012). Snow Cover Modeling at the Puna Tsang River Basin in Bhutan with Corrected JRA-25 Temperature. *Annual Journal of Hydraulic Engineering, JSCE*, Vol. 56, 235–240. [https://doi.org/10.2208/jscejhe.68.I\\_235](https://doi.org/10.2208/jscejhe.68.I_235)
- Frey, H., Ricciardi, V., Cramer, K., McDowell, G., Wang, F. M., & Huggel, C. (2018). Adaptation action and research in glaciated mountain systems: Are they enough to meet the challenge of climate change? *Global Environmental Change*, 54(November 2018), 19–30. <https://doi.org/10.1016/j.gloenvcha.2018.10.012>
- Gupta, H. V., Kling, H., Yilmaz, K. K., & Martinez, G. F. (2009). Decomposition of the mean squared error and NSE performance criteria: Implications for improving hydrological modelling. *Journal of Hydrology*, 377(1–2), 80–91. <https://doi.org/10.1016/j.jhydrol.2009.08.003>
- Gurung, D. R., Kulkarni, A. V., Giriraj, A., Aung, K. S., & Shrestha, B. (2011). Monitoring of seasonal snow cover in Bhutan using remote sensing technique. *Current Science*, 101(10), 1364–1370.
- Gurung, D. R., Maharjan, S. B., Shrestha, A. B., Shrestha, M. S., Bajracharya, S. R., & Murthy, M. S. R. (2017). Climate and topographic controls on snow cover dynamics in the Hindu Kush Himalaya. *International Journal of Climatology*, 37(10), 3873–3882. <https://doi.org/10.1002/joc.4961>
- Gyawali, R., & Watkins, D. W. (2012). Continuous Hydrologic Modeling of Snow-Affected Watersheds in the Great Lakes Basin Using HEC-HMS. *Journal of Hydrologic Engineering*, 18(1), 29–39. [https://doi.org/10.1061/\(asce\)he.1943-5584.0000591](https://doi.org/10.1061/(asce)he.1943-5584.0000591)

- Gyawali, R., & Watkins, D. W. (2012). Continuous Hydrologic Modeling of Snow-Affected Watersheds in the Great Lakes Basin Using HEC-HMS. *Journal of Hydrologic Engineering*, 18(1), 29–39. [https://doi.org/10.1061/\(asce\)he.1943-5584.0000591](https://doi.org/10.1061/(asce)he.1943-5584.0000591)
- Hall, D. K., Kelly, R. E., Foster, J. L., & Chang, A. T. (2006). Estimation of Snow Extent and Snow Properties. *Encyclopedia of Hydrological Sciences*, 1. <https://doi.org/10.1002/0470848944.hsa062>
- Han, P., & Wang, X. (2016). Forecasting the Response of a Catchment on Extreme Climate Change with ABCD Model, (November).
- He, Y. (2011). Sciences A review of regionalisation for continuous streamflow simulation, 3539–3553. <https://doi.org/10.5194/hess-15-3539-2011>
- Hunukumbura, P. B., Tachikawa, Y., & Shiiba, M. (2012). Distributed hydrological model transferability across basins with different hydro-climatic characteristics, 808(October 2011), 793–808. <https://doi.org/10.1002/hyp.8294>
- Jena, F. (1972). Hydrological Snowmelt Modelling in Snow Covered River Basins By Means of Geographic Information System and Remote Sensing Case Study -- Latyan Catchment in Iran Dissertation.
- Khatri, H. B., Jain, M. K., & Jain, S. K. (2018). Modelling of streamflow in snow dominated Budhigandaki catchment in Nepal. *Journal of Earth System Science*, 127(7), 1–14. <https://doi.org/10.1007/s12040-018-1005-5>
- Kim, U., & Kaluarachchi, J. J. (2008). Application of parameter estimation and regionalization methodologies to ungauged basins of the Upper Blue Nile River Basin, Ethiopia. *Journal of Hydrology*, 362(1–2), 39–56. <https://doi.org/10.1016/j.jhydrol.2008.08.016>
- Kumar, R., Livneh, B., & Samaniego, L. (2013). Toward computationally efficient large-scale hydrologic predictions with a multiscale regionalization scheme, 49(September), 5700–5714. <https://doi.org/10.1002/wrcr.20431>
- Li, C. Z., Zhang, L., Wang, H., Zhang, Y. Q., Yu, F. L., & Yan, D. H. (2012). The transferability of hydrological models under nonstationary climatic conditions, 1239–1254. <https://doi.org/10.5194/hess-16-1239-2012>
- Li, H., Beldring, S., Xu, C.-Y., & Jain, S. (2014). Modelling runoff and its components in Himalayan basins. *Hydrology in a Changing World: Environmental and Human Dimensions*, (363), 158–164. Retrieved from <http://iahs.info/Publications-News.do>
- Li, M., Shao, Q., Zhang, L., & Chiew, F. H. S. (2010). A new regionalization approach and its application to predict flow duration curve in ungauged basins. *Journal of Hydrology*, 389(1–2), 137–145. <https://doi.org/10.1016/j.jhydrol.2010.05.039>
- Lijuan, W. E. N. (2013). Impact of Rain Snow Threshold Temperature on Snow Depth Simulation in Land Surface and, 30(5), 1449–1460. <https://doi.org/10.1007/s00376-012-2192-7.1.Introduction>
- Linden, S. Van Der, & Woo, M. (2003). Transferability of hydrological model parameters between basins in data-sparse areas, subarctic Canada, 270, 182–194.
- LIVRE. (n.d.). Mapping snow cover using MODIS, 13.

- Mahanta, C., Mahagaonkar, A., & Choudhury, R. (2018). Groundwater of South Asia. Springer Singapore. <https://doi.org/10.1007/978-981-10-3889-1>
- Marinou, P., Feloni, E., Tzoraki, O., Baltas, E. (2017). An implementation of a water balance model in the Evrotas basin. *European Water*, 57, 147–154.
- Mark, B. G., French, A., Baraer, M., Carey, M., Bury, J., Young, K. R., ... Lautz, L. (2017). Glacier loss and hydro-social risks in the Peruvian Andes. *Global and Planetary Change*, 159(April 2017), 61–76. <https://doi.org/10.1016/j.gloplacha.2017.10.003>
- Martinez, G. F., & Gupta, H. V. (2010). Toward improved identification of hydrological models : A diagnostic evaluation of the “ abcd ” monthly water balance model for the conterminous United States, 46, 1–21. <https://doi.org/10.1029/2009WR008294>
- Martinez, G. F., & Gupta, H. V. (2010). Toward improved identification of hydrological models : A diagnostic evaluation of the “ abcd ” monthly water balance model for the conterminous United States, 46, 1–21. <https://doi.org/10.1029/2009WR008294>
- Mazrooei, A., & Sankarasubramanian, A. (2012). ER, 1–10.
- National Center for Hydrology and Meteorology, R. G. of B. (2017). Bhutan State of the Climate 2017. Retrieved from <http://nchm.gov.bt/attachment/ckfinder/userfiles/files/Bhutan State of the Climate 2017.pdf>
- Nepal, S., Chen, J., Penton, D. J., Neumann, L. E., Zheng, H., & Wahid, S. (2017). Spatial GR4J conceptualization of the Tamor glaciated alpine catchment in Eastern Nepal: evaluation of GR4JSG against streamflow and MODIS snow extent. *Hydrological Processes*, 31(1), 51–68. <https://doi.org/10.1002/hyp.10962>
- Nepal, S., Flügel, W. A., Krause, P., Fink, M., & Fischer, C. (2017). Assessment of spatial transferability of process-based hydrological model parameters in two neighbouring catchments in the Himalayan Region. *Hydrological Processes*, 31(16), 2812–2826. <https://doi.org/10.1002/hyp.11199>
- Pokharel, R., Neupane, P., Tiwari, K., & Köhl, M. (2014). Assessing the sustainability in community based forestry: A case from Nepal. *Forest Policy and Economics*, 58. <https://doi.org/10.1016/j.forpol.2014.11.006>
- Rezaeianzadeh, M., Stein, A., Tabari, H., Abghari, H., Jalalkamali, N., Hosseinipour, E., & Singh, V. (2013, February 13). Assessment of a conceptual hydrological model and artificial neural networks for daily outflows forecasting. *International Journal of Environmental Science and Technology*. <https://doi.org/10.1007/s13762-013-0209-0>
- Shrestha, M., Wang, L., Koike, T., Xue, Y., & Hirabayashi, Y. (2012). Modeling the Spatial Distribution of Snow Cover in the Dudhkoshi Region of the Nepal Himalayas. *Journal of Hydrometeorology*, 13(1), 204–222. <https://doi.org/10.1175/jhm-d-10-05027.1>
- Shrestha, S., Dulal, K. N., Bastola, S., Kazama, F., & Takeuchi, K. (2007). THE ASSESSMENT OF SPATIAL TRANSFERABILITY OF A DISTRIBUTED HYDROLOGICAL MODEL PARAMETERS IN DIFFERENT PHYSIOGRAPHIC REGIONS OF NEPAL, 51, 37–42.

- Singh, S. K. (2018). Regionalisation of hydrological model parameters in nested catchments, 1–10.
- Snowmelt Runoff Analysis and Impact Assessment of Temperature Change in the Upper Punatsang Chu Basin, Bhutan. (2015). Suranaree Journal of Science and Technology, 22(4), 409–426.
- Taylor, P., Zelelew, M. B., & Alfredsen, K. (2014). Transferability of hydrological model parameter spaces in the estimation of runoff in ungauged catchments Transferability of hydrological model parameter spaces in the estimation of runoff in ungauged catchments, (November), 37–41. <https://doi.org/10.1080/02626667.2013.838003>
- Verdhen, A., Chahar, B. R., & Sharma, O. P. (2013). Snowmelt Runoff Simulation Using HEC-HMS in a Himalayan Watershed, (December 2014), 3206–3215. <https://doi.org/10.1061/9780784412947.317>
- Wagener, T., & Wheater, H. S. (2006). Parameter estimation and regionalization for continuous rainfall-runoff models including uncertainty. Journal of Hydrology, 320(1–2), 132–154. <https://doi.org/10.1016/j.jhydrol.2005.07.015>
- Wu, Z., Mei, Y., Chen, J., Hu, T., & Xiao, W. (2019). Attribution Analysis of Dry Season Runoff in the Lhasa River Using an Extended Hydrological Sensitivity Method and a Hydrological Model. Water, 11(6), 1187. <https://doi.org/10.3390/w11061187>
- Xu, C. (2015). This document is published as Chapter 17 of the following book , pp555-590.
- .