

Hydrol. Earth Syst. Sci. Discuss., referee comment RC1
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Comment on hess-2022-58

Anonymous Referee #1

Referee comment on "Quantifying overlapping and differing information of global precipitation for GCM forecasts and El Niño–Southern Oscillation" by Tongtiegang Zhao et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2022-58-RC1>, 2022

This is an excellent and interesting study. The authors have adequately addressed all the comments raised by previous reviewers.

Just one minor point. I think in the Introduction, the authors should appreciate the latest advances in the seasonal hydroclimate forecast using hybrid dynamic-statistical approaches, such as Wanders et al. (2017). Seasonal forecast is also key for drought impact reduction, e.g., related to food security and water resources management (He et al., 2019; Sheffield et al., 2014; He et al., 2021).

Ref:

He, X., Estes, L., Konar, M., Tian, D., Anghileri, D., Baylis, K., Evans, T.P. and Sheffield, J., 2019. Integrated approaches to understanding and reducing drought impact on food security across scales. *Current Opinion in Environmental Sustainability*, 40, pp.43-54.

Wanders, N., Bachas, A., He, X.G., Huang, H., Koppa, A., Mekonnen, Z.T., Pagán, B.R., Peng, L.Q., Vergopolan, N., Wang, K.J. and Xiao, M., 2017. Forecasting the hydroclimatic signature of the 2015/16 El Niño event on the Western United States. *Journal of Hydrometeorology*, 18(1), pp.177-186.

Sheffield, J., Wood, E.F., Chaney, N., Guan, K., Sadri, S., Yuan, X., Olang, L., Amani, A., Ali, A., Demuth, S. and Ogallo, L., 2014. A drought monitoring and forecasting system for

sub-Saharan African water resources and food security. *Bulletin of the American Meteorological Society*, 95(6), pp.861-882.

He, X., Bryant, B.P., Moran, T., Mach, K.J., Wei, Z. and Freyberg, D.L., 2021. Climate-informed hydrologic modeling and policy typology to guide managed aquifer recharge. *Science advances*, 7(17), p.eabe6025.