

This manuscript compiles many meteorological forcings datasets and provides an overview, which has certain reference significance for modeling research. However, I think the narrative in the article needs to be further improved.

**Major Comments:**

**Introduction.** The descriptions are too simplistic in this manuscript. (e.g., “Many studies have intercompared the accuracy of particular subsets of these gridded climate datasets for various regions, settings, and time frames across the globe with various insights and conclusions.”). More citations are needed to support your opinion and illustrate with specific examples.

**Minor Comments:**

**Abstract.** The manuscript can summarize the advantages of this work, for example, including the situation of previous research, and the innovation of this research.

**Figure 1.** This picture needs further beautification. In addition, some explanation should be added in the title of the figure, Such as “Spatial Coverage: Land=Global land surfaces only (not ocean surfaces).”.

**Section 3.3.** The spatial and temporal resolution of evapotranspiration, runoff, and other hydrological elements is relatively high (100m-1km, hourly; Melsen et al., 2016). The resolution of gridded climate datasets should be an important criterion to consider. In my opinion, the resolution of the hydrologic model is limited by the spatial and temporal resolution of climate datasets. Hence, the manuscript should clarify the significance of high-resolution gridded climate datasets for numerical simulation, especially for reducing uncertainty in simulation.

Reference: Melsen LA, Teuling AJ, Torfs PJJF, et al. HESS Opinions: The need for process-based evaluation of large-domain hyper-resolution models[J]. Hydrology and Earth System Sciences, 2016, 20(3): 1069-1079.