Hydrology and
Earth System
Sciences
Discussions

Open Access

EGU

Interactive comment on "Statistical bias correction for climate change impact on the basin scale precipitation in Sri Lanka, Philippines, Japan and Tunisia" *by* C. T. Nyunt et al.

P. Hunukumbura

hunukubura@gmail.com

I have reviewed with great interest the paper by Nyunt, et al. I have a short comment on the method the authors used to correct the future climate precipitation (equation 11 on page 8).

$$X'_{Gcm\_Fut} = F^{-1}_{Obs}(F_{Gcm\_past}(X_{Gcm\_Fut})) \quad\text{————(11)}$$

According to the equation, the authors fed future precipitation (X_{Gcm_Fut}) into the the CDF fitted using the past GCM precipitation data (F_{Gcm_Past}) to get the cumulative probability. It means, they assumed that the future precipitation follows the same CDF as the past GCM precipitation. In practice, this is not true.

It is better to clarify why authors assumed the same CDF for the past and the future precipitation.