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Interactive comment on "Complex Principal Component Analysis of Mass Balance Change on Qinghai-Tibet Plateau" *by* Jingang Zhan et al.

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This paper, among the others results, shows that glacial fluctuation of the Himalayas area was mainly influenced by the weakening Indian monsoon.

Personally, I support these findings, because, at more local scale (southern slopes of Mt. Everest, central Himalaya), we arrived to the same results.

Thakuri et al., 2014 examining glacier changes from 1962 to 2011 (400 km2) concluded that the observed glaciers shrinkage, upward shift of snowline altitudes (SLAs) and the negative mass balance (Bolch et al., 2011; Nuimura et al., 2012) is not only due to warming temperatures, but also as a result of weakening Asian monsoons registered over the last few decades. The registered losses could be mainly due to a minor accumulation. Wagnon et al. (2013), in the same region, arrived at the same conclusion.

Recently, Salerno et al., 2015, analyzing the precipitation time series reconstructed through land weather stations located at high elevation (5000 m a.s.l.) shown that in the last 20 years precipitation decreased of even 47% during the monsoon period!!! Salerno et al., 2016 extended this analysis even the first 1960s and for all region using, as proxy of the precipitation trend, the surface area variation of glacial lakes. These authors inferred an increase in precipitation occurred until the mid-1990s followed by a decrease until recent years in all Mt. Everest region.

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