

Press Release



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One million years of precipitation history of the monsoon reconstructed Sediment cores allow new insights into the mechanisms of this climate phenomenon

***08 November 2018/Kiel.* With its wind and precipitation patterns, the South Asian Monsoon influences the lives of several billion people. Recent studies indicate that its drivers are**

The new record generally shows that the precipitation of the South Asian Monsoon was weaker during the peak ice ages and strongest during the interglacial warm periods like today. "However, we were only able to associate 30 percent of the variability of monsoon precipitation in the eastern Indian Ocean with fluctuations in the Earth's axis inclination. This means that it only plays a subordinate role in the fluctuations of the monsoon," emphasizes Dr Gebregiorgis. Instead, the results of the scientists pointed to important connections with warming phases in the southern hemisphere and moisture transport across the equator to the north. "This process has hardly been considered so far," says Dr. Gebregiorgis.

"The evaluation of the new climate archives shows that we have still not fully understood the monsoon. As long as this is not the case, it is difficult to estimate the reactions of this important climate system to a globally warming atmosphere," summarizes working group leader Prof. Dr. Martin Frank from GEOMAR.

Reference:

Gebregiorgis, D., E. C. Hathorne, L. Giosan, S. Clemens, D. Nürnberg, M. Frank (2018): Southern Hemisphere forcing of South Asian monsoon precipitation over the past 1 Million years. Nature Communication, <http://dx.doi.org/10.1038/s41467-018-07076-2>

Links: