

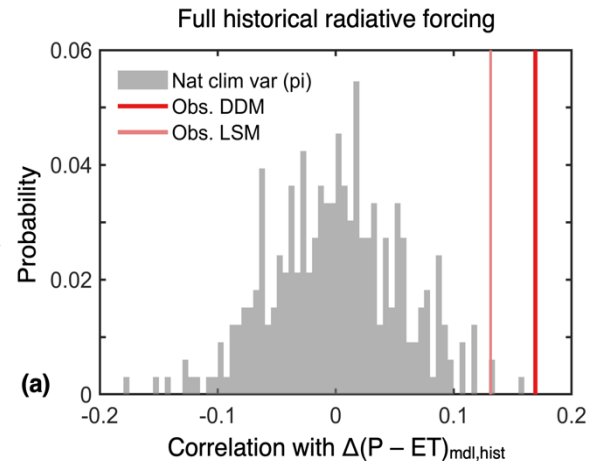
# Observed changes in dry season water availability attributed to human-induced climate change

**Objective:** To detect and attribute (D&A) the changes in dry season availability of water resources for the 1902 to 2014 period.

**Approach:** Apply the D&A methods onto observation-based water availability reconstructions from data-driven and LS3MIP simulations, and CMIP5 factorial experiments.

**Results/Impacts:** The global pattern of changes is extremely likely influenced by human-induced climate change as it is consistent with climate model estimates that account for anthropogenic effects and it is not expected from natural climate variability. The observed regional tendencies are projected to continue under further global warming, highlighting the need for urgent climate action.

Ryan S. Padrón, Lukas Gudmundsson, Bertrand Decharme, Agnès Ducharne, David M. Lawrence, **Jiafu Mao**, Daniele Peano, Gerhard Krinner, Hyungjun Kim, and Sonia I. Seneviratne (2020), Observed changes in dry season water availability attributed to human-induced climate change, *Nature Geoscience*, 13, 477-481.



**Figure:** Attribution of observed changes in dry season water availability to human-induced climate change.