

EPAR Technical Report #386: Observed Climate Impacts on Smallholder Farmers Review Framework and Results Coding

References for the impact of Precipitation on Variable/changing seasons:

- Ayanlade, A., Radeny, M., Morton, J. F., & Muchaba, T. (2018). Rainfall variability and drought characteristics in two agro-climatic zones: An assessment of climate change challenges in Africa. *Science of the Total Environment*, 630, 728-737. doi: 10.1016/j.scitotenv.2018.02.196. <https://www.sciencedirect.com/science/article/pii/S0048969718305953?via%3Dihub>
- Batisani, N. & Yarnal, B. (2010). Rainfall variability and trends in semi-arid Botswana: Implications for climate change adaptation policy. *Applied Geography*, 30, 483-489. doi: 10.1016/j.apgeog.2009.10.007. <https://www.sciencedirect.com/science/article/pii/S0143622809000733>
- Cui, X. & Graf, H. F. (2009). Recent Land Cover Changes on The Tibetan Plateau: A Review. *Climatic Change*, 94, 47-61. doi: 10.1007/s10584-009-9556-8. <https://link.springer.com/article/10.1007/s10584-009-9556-8>
- Diem, Jeremy E., et al. (2017). Comparison of measured multi-decadal rainfall variability with farmers' perceptions of and responses to seasonal changes in western Uganda. *Regional Environmental Change* 17.4, 1127-1140. doi: 10.1007/s10113-016-0943-1. <https://link.springer.com/article/10.1007/s10113-016-0943-1>
- Fiwa, Lameck, et al. (2014). Effect of rainfall variability on the length of the crop growing period over the past three decades in central Malawi. *Climate Research* 62.1: 45-58. <https://www.int-res.com/abstracts/cr/v62/n1/p45-58/>
- Goenster, S., Wiehle, M., Gebauer, J., Ali, A. M., Stern, R. D., & Buerkert, A. (2015). Daily rainfall data to identify trends in rainfall amount and rainfall-induced agricultural events in the Nuba Mountains of Sudan. *Journal of Arid Environments*, 122, 16-26. <https://www.sciencedirect.com/science/article/pii/S0140196315001366>
- Harvey, Celia A., et al. (2014). Extreme vulnerability of smallholder farmers to agricultural risks and climate change in Madagascar. *Philosophical Transactions of the Royal Society B: Biological Sciences* 369.1639: 20130089. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3928894/>
- Immerzeel, W. (2007). Historical Trends and Future Predictions of Climate Variability in the Brahmaputra Basin. *International Journal of Climatology*, 28(2), 243-254. <https://rmets.onlinelibrary.wiley.com/doi/10.1002/joc.1528>
- Kumar, V. & Jain, S. (2011). Trends in Rainfall Amount and Number of Rainy Days in River Basins of India (1951-2004). *Hydrology Research*, 42 (4), 290-306. doi: 10.2166/nh.2011.067. <https://iwaponline.com/hr/article-abstract/42/4/290/1050/Trends-in-rainfall-amount-and-number-of-rainy-days?redirectedFrom=fulltext>
- Martin et al. (2010). Soil Organic Carbon Storage Changes with Climate Change, Landform and Land Use Conditions in Garhwal Hills of the Indian Himalayan Mountains. *Agriculture, Ecosystems & Environment*, 138(1-2), 64-73. <https://www.sciencedirect.com/science/article/pii/S0167880910001003>

- Roxy et al. (2017). A Threefold Rise in Widespread Extreme Rain Events Over Central India. *Nature Communications* 8(708), 1-11. Doi: 10.1038/s41467-017-00744-9. <https://www.nature.com/articles/ncomms8423>
- Salerno, J., Diem, J. E., Konecky, B. L., & Hartter, J. (2019). Recent intensification of the seasonal rainfall cycle in equatorial Africa revealed by farmer perceptions, satellite-based estimates, and ground-based station measurements. *Climatic Change*, 1-17. <https://link.springer.com/article/10.1007/s10584-019-02370-4>
- Sanogo, K. et al. (2017). Farmers' perceptions of climate change impacts on ecosystem services delivery of parklands in southern Mali. *Agroforest Syst*, 91, 345-361. Doi: 10.1007/s10457-016-9933-z. <https://link.springer.com/article/10.1007/s10457-016-9933-z>
- Sarr, B. (2012). Present and future climate change in the semi-arid region of West Africa: a crucial input for practical adaptation in agriculture. *Atmospheric Science Letters*, 13, 108-112. doi: 10.1002/asl.368. <https://rmets.onlinelibrary.wiley.com/doi/10.1002/asl.368>
- Worku, G. et al. (2018). Observed changes in extremes of daily rainfall and temperature in Jemma Sub-Basin, Upper Blue Nile Basin, Ethiopia. *Theoretical and Applied Climatology*. doi:10.1007/s00704-018-2412-x. <https://link.springer.com/article/10.1007/s00704-018-2412-x>
- Xu, Z. X., Gong, T. L., & Li, J. Y. (2008). Decadal Trend of Climate in the Tibetan Plateau—Regional Temperature and Precipitation. *Hydrological Processes*, 22, 3056-3065. doi: 10.1002/hyp.6892. <https://onlinelibrary.wiley.com/doi/abs/10.1002/hyp.6892>