



#### Observed Climate Impacts on Smallholder Farmers

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EPAR Technical Brief #386

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April 9, 2019

These findings are the result of a review of relevant documents cited in Kilroy (2015), references in the IPCC draft Special Report on Food Security, and targeted searches from 2015 - present for South Asia and Sub-Saharan Africa. Searches were conducted for the impacts of temperature and precipitation on five biophysical pathways and systems including impacts on crop and livestock yields, impacts to land and soil (e.g. cover and quality, soil moisture, etc.), impacts to water (e.g. salinization, changing water table, etc.), variable and changing growing seasons, extreme events, and biotic stressors. This initial review focused on observed impacts of biophysical changes and excluded documents only mentioning biophysical changes, but not their impact (e.g. those that solely measure glacial retreat) and documents solely focused on adaptation. Documents related to the impact of climatic change on conflict and migration were excluded in this initial stage. Additionally, given the broader focus on smallholder farmers, this initial review excluded documents solely focused on impacts to urban areas.

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