

EGU2020-7282

<https://doi.org/10.5194/egusphere-egu2020-7282>

EGU General Assembly 2020

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## Mapping the spatial and temporal dynamics in vulnerability of smallholder farming systems in Ethiopia

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Vulnerability to climate change differs spatially within the country owing to regional differences in exposure, sensitivity, and adaptive capacity. The paper aims to assess the vulnerability of smallholder farming systems in Ethiopia to observed climate change, to gain insight into factors that may shape vulnerability in the future. Spatial dynamics in vulnerability is assessed at subnational level (zone-level) and temporal dynamics is studied across three time periods i.e. historical (1985-2005), current (2005-2015), and future (2035-2045). The study uses an index-based approach, which is suitable for assessing vulnerability as it includes both biophysical and socio-economic dimensions. This approach combines the environmental and socio-economic data from different sources (agricultural surveys, climate, and remote sensing data) to capture the multi-dimensional attributes of vulnerability. This research contributes to evidence-based adaptation planning in Ethiopia by identifying areas and patterns of high vulnerability and its components.