SPIR II RFSA | 2023 Learning Event

Do ultra-poor graduation programs promote resilience against droughts? Evidence from rural Ethiopia

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ORDA Ethiopia

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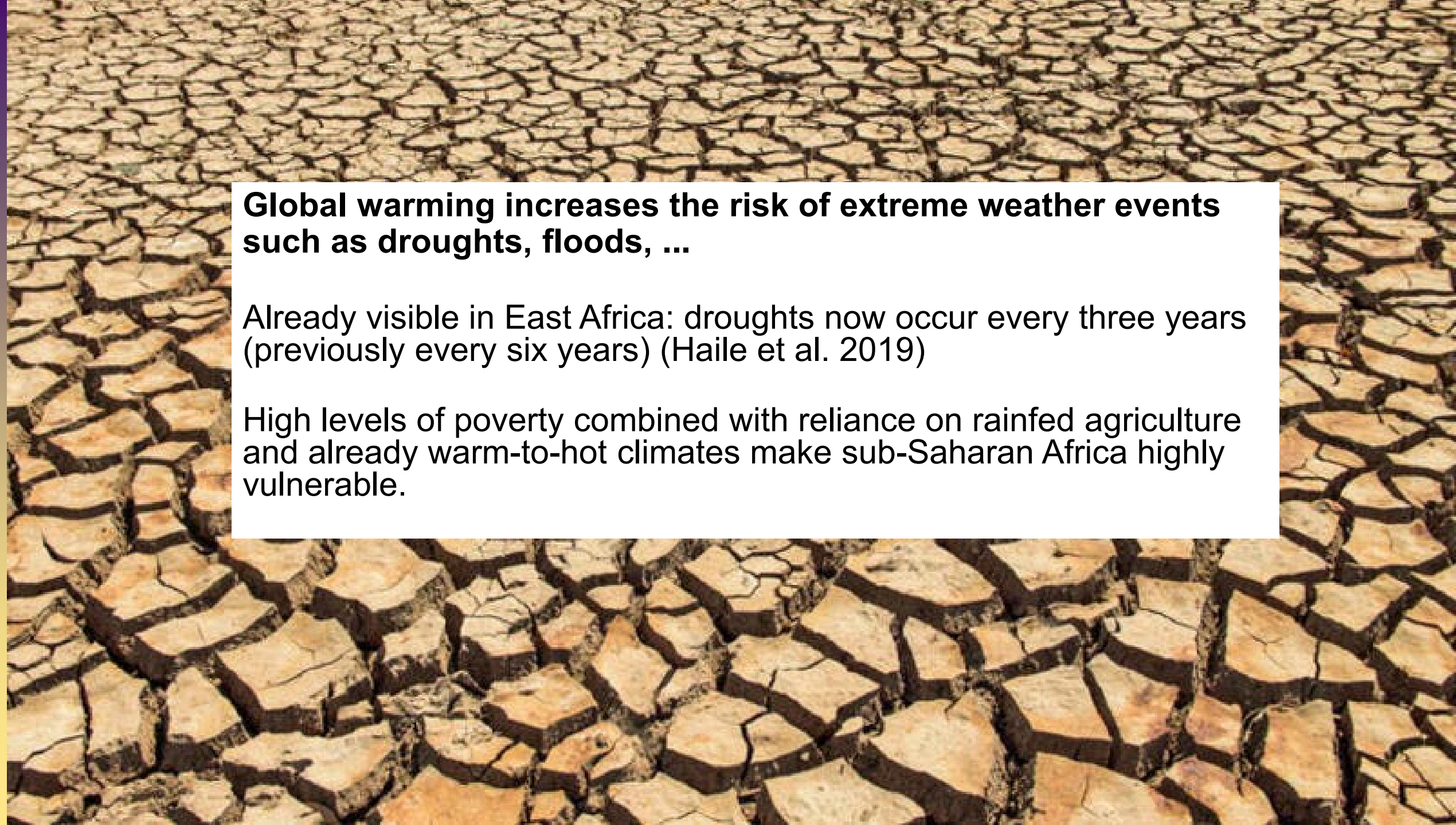
World Vision



Global warming increases the risk of extreme weather events such as droughts, floods, ...

Already visible in East Africa: droughts now occur every three years (previously every six years) (Haile et al. 2019)

High levels of poverty combined with reliance on rainfed agriculture and already warm-to-hot climates make sub-Saharan Africa highly vulnerable.

Strengthen PSNP Institutions and Resilience (SPIR) introduced to improve PSNP graduation

- 5-year project (2016-2021) that supported the 4th phase of the PSNP
- A graduation program to provide a ‘big push’ to overcome poverty traps and promote food security through complementary multisectoral gender-transformative livelihood and nutrition activities
    - Livelihoods: SPIR-1 has the potential to disrupt the effect of weather shocks by strengthening investment in livestock (asset transfers) and agriculture (value chain investments)
    - Nutrition: SPIR-1 sought to mitigate effects of weather shocks on household welfare, especially food security and human capital (nutrition)

Did SPIR-1 protect PSNP households against local droughts?

- Outcomes:
  - Food security, livestock assets
  - Women's dietary diversity and body-mass index
  - Intimate partner violence

Four study arms

- Control arm: PSNP households
- Treatment arm #1: PSNP + livelihood & transfers (L*) + intensive nutrition (N*)
- Treatment arm #2: PSNP + livelihood & transfers (L*) + basic nutrition (N)
- Treatment arm #3: PSNP + basic livelihood (L) + intensive nutrition (N*)

Treated

Note: livelihood transfers in L were only given to poorest households (10 out of 18 households in each study cluster)*

192 clusters in total: ~ 48 clusters per study arm

Drought measure

- Standardised Precipitation-Evapotranspiration Index (SPEI) (Vicente-Serrano et al., 2010).
- Measures relative dryness (climatic water balance)
- We focus on the relative dryness during the meher season (June-September).

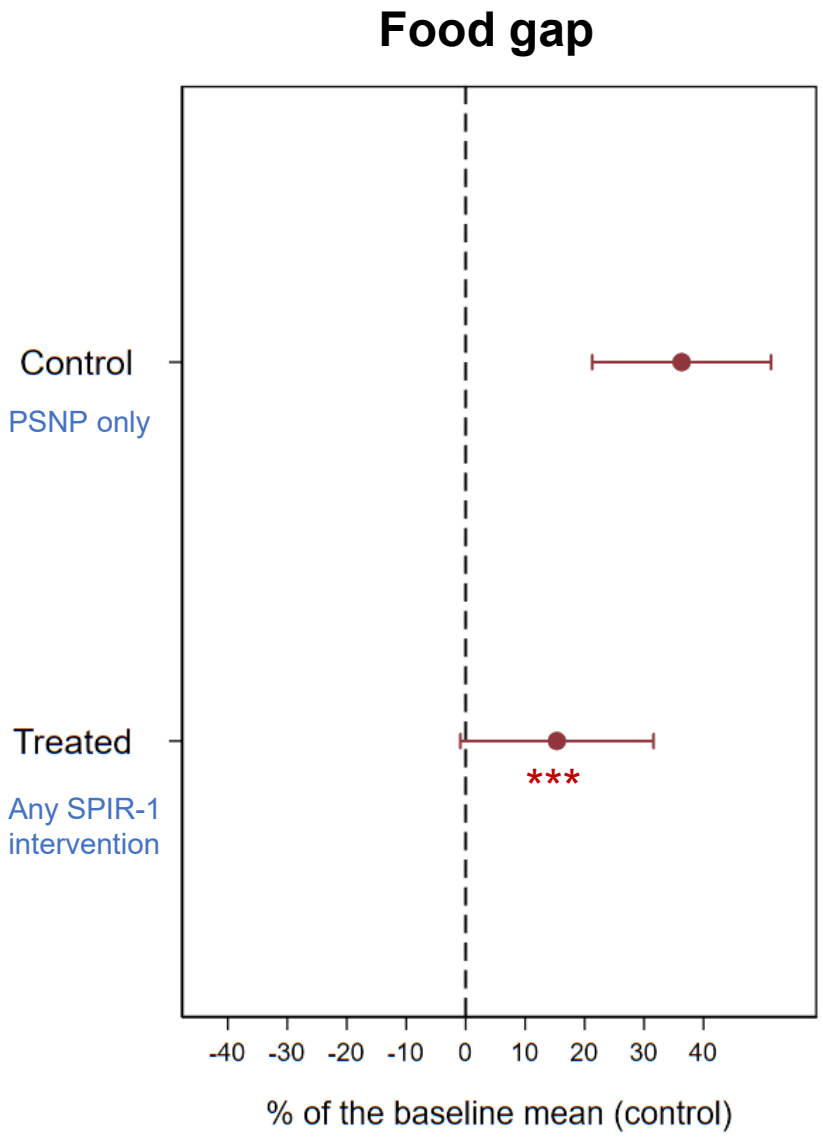
- Note: no **major** droughts during the study period, but even these relatively ‘small intensity’ droughts were highly damaging in control clusters.

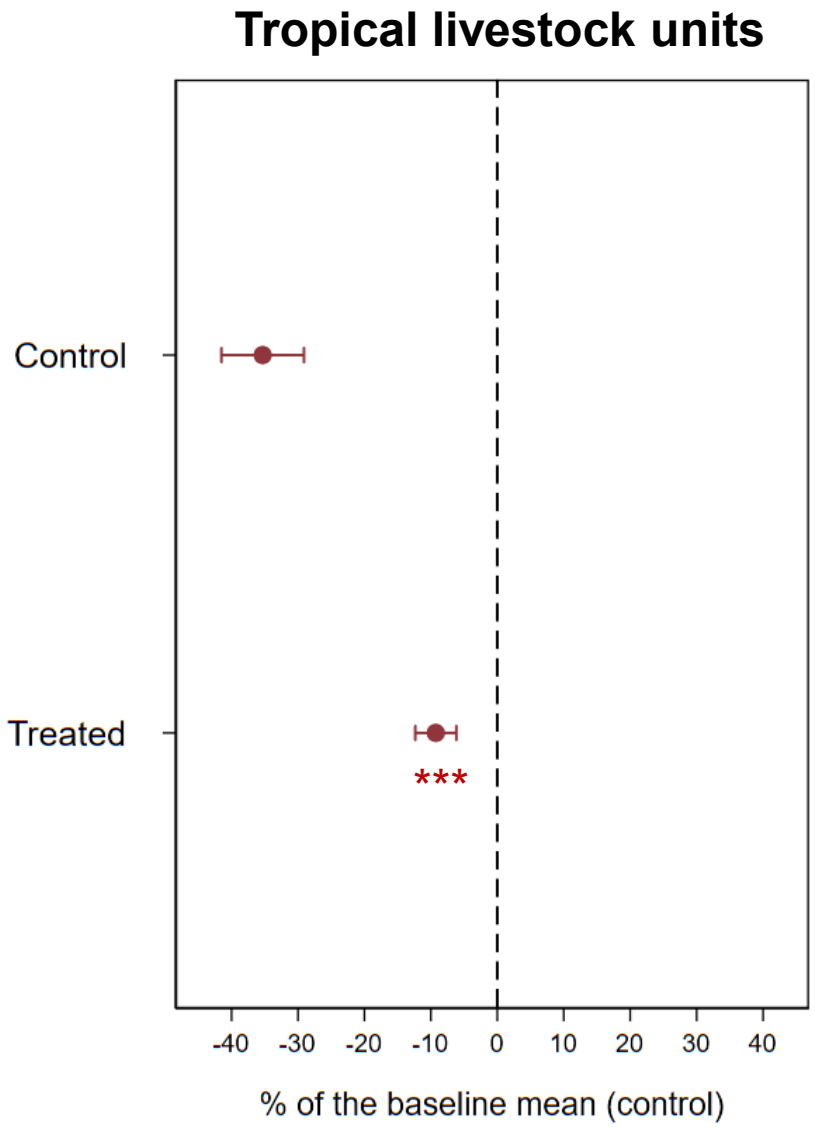
Method

- Study clusters are similar in terms of household characteristics at the baseline (baseline balance)
- Each woreda has roughly equal number of treatment and control clusters (kebeles)
- Regress the outcome measured in midline and endline on the drought indicator capturing conditions in the relevant meher season, controlling for baseline value of the outcome, survey round indicator and woreda fixed effects.

➢ Compare the impact of the drought in treatment and control clusters

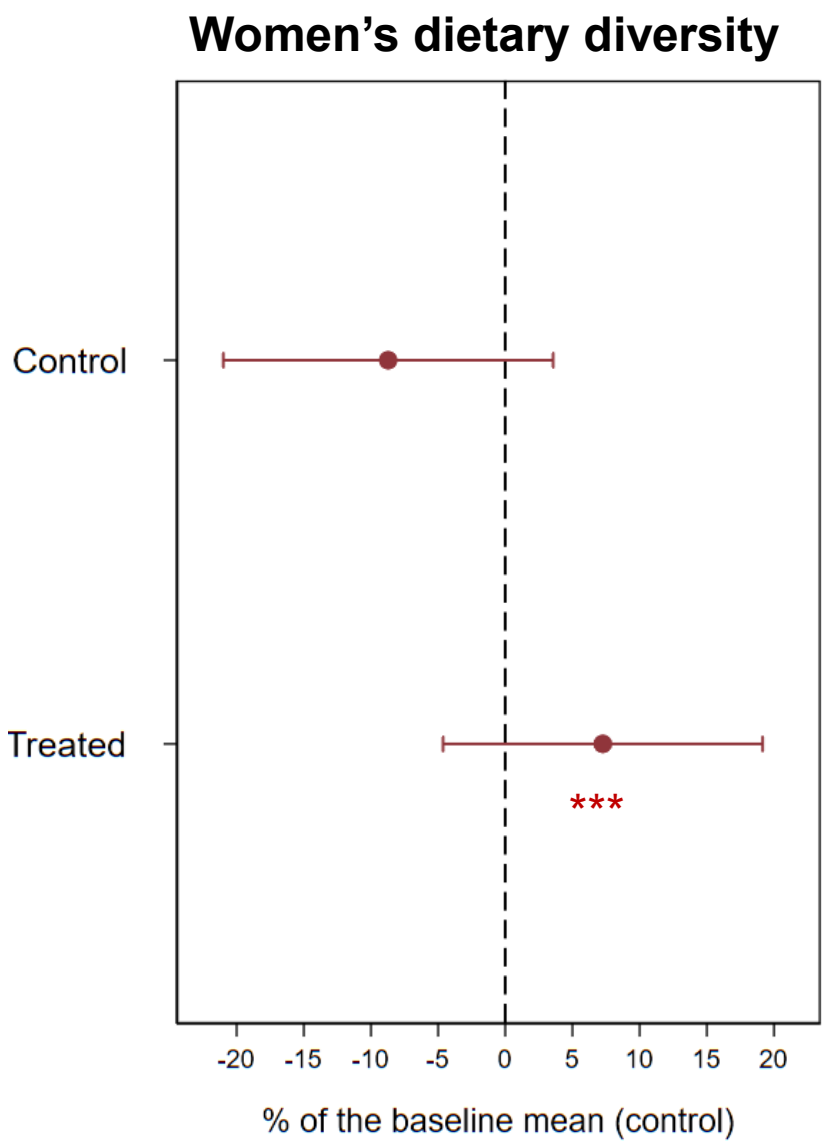
Impact of 0.2 SD increase in relative dryness during the cropping season

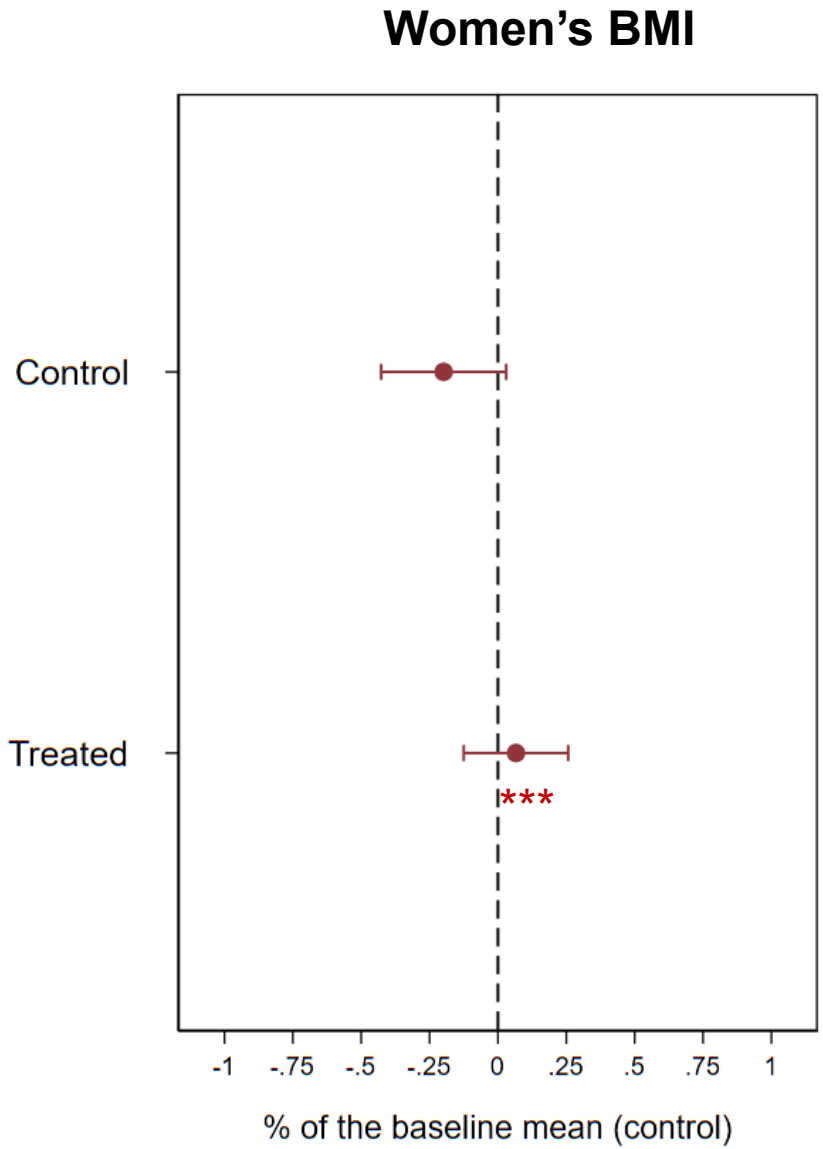




Statistically different to the control arm: * p < 0.10, ** p < 0.05, *** p < 0.01

Impact of 0.2 SD increase in relative dryness during the cropping season





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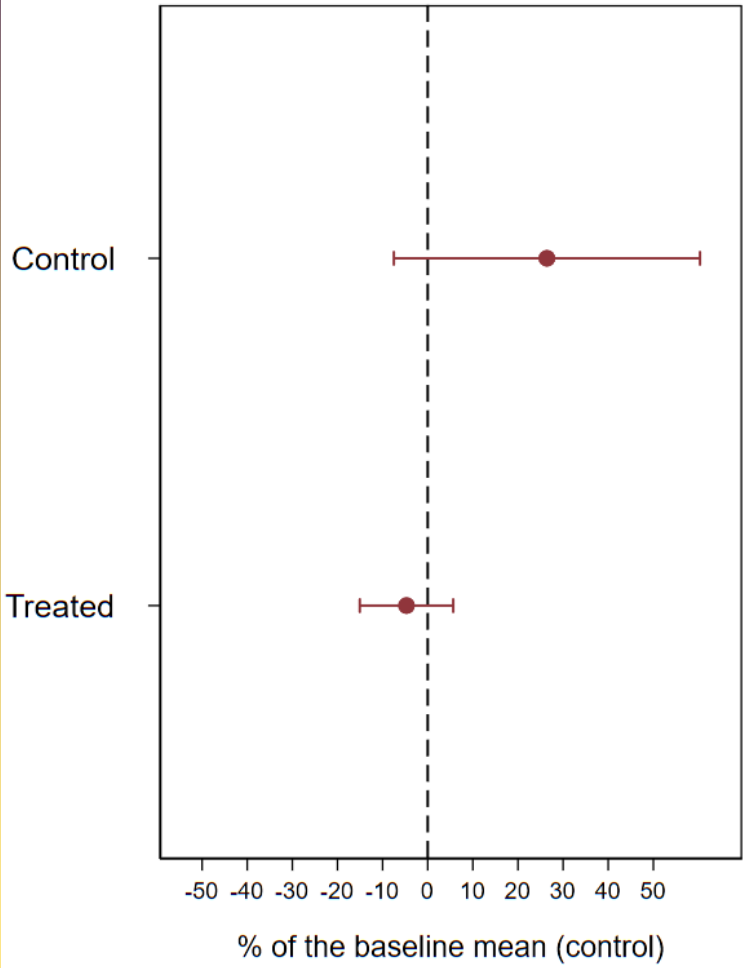
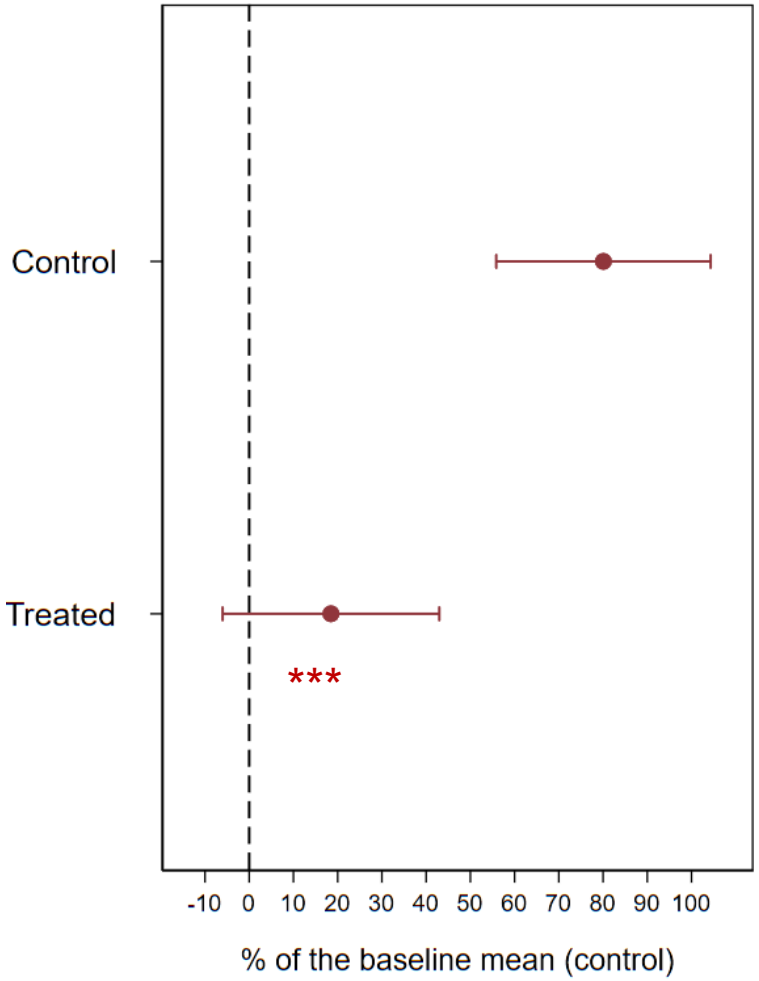
Impact of 0.2 SD increase in relative dryness during the cropping season

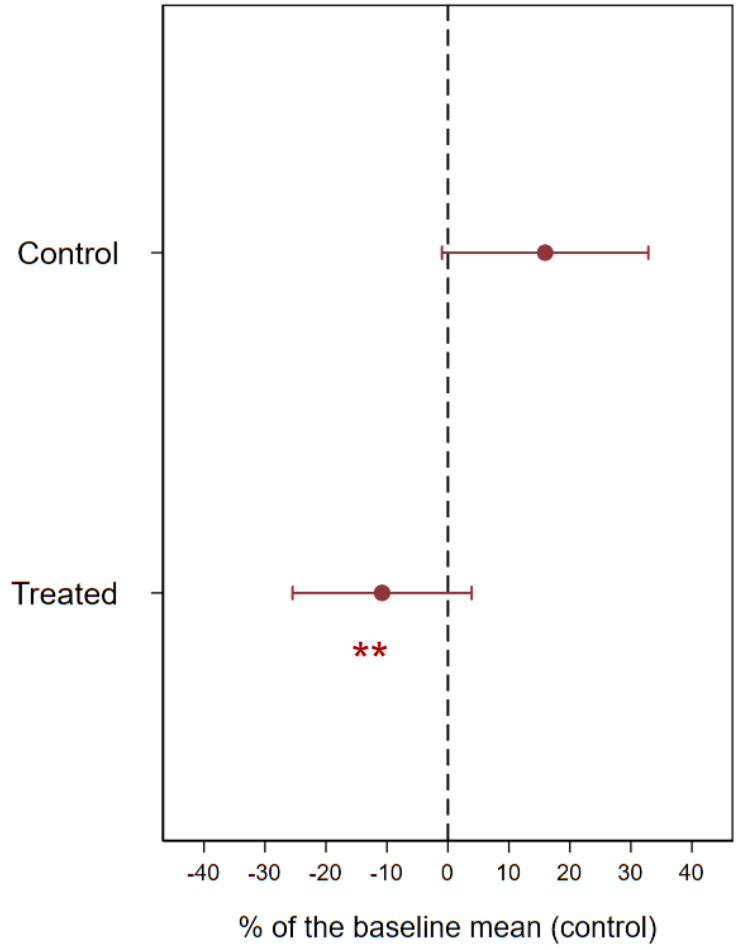
Physical violence



Sexual violence



Emotional violence



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Understanding the mechanisms

- Further analyses:
  - No meaningful differences across study arms (= treatment intensity didn't matter much).
  - These results are not driven by the one-off livelihood grant.

- Main evaluation:
  - The program led to substantial increases in productive assets (livestock) and increased incomes from these assets.
  - Financial inclusion: savings levels and access to credit improved.

➢Likely mechanism that offered protection during droughts.

Summary, caveat & conclusion

- **Summary:** PSNP households in control clusters were highly vulnerable to local droughts, households in SPIR-1 clusters much less so. **-> Improved resilience.**

- **Caveat:** No major drought during the study period (yet sizable negative impacts on control areas)
  - But: Would SPIR-1 have been able to protect against a major ’2015-16 style’ drought?

- **Conclusion:** Relatively light touch livelihood and nutrition interventions can substantially increase resilience in poor PSNP communities.