



# Examining Forced Displacement in Ethiopia as a Mechanism for Inducing Conflict

Jack C. Musicco, Department of Economics

This research was supported by the Jamie Cassels Undergraduate Research Awards, University of Victoria. Supervised by Dr. F. Pretis. Department of Economics. 10/03/2025.

## Introduction

**Research question:** Does forced displacement exacerbate regional conflict within Ethiopia?

- Ethiopia is the world's most populous landlocked country. Despite rapid economic growth, it faces widespread displacement.
- An estimated **1.6 million** Ethiopians are currently internally displaced, primarily due to conflict and drought.
- The 2020–2022 war between the government and Tigray People's Liberation Front (TPLF) caused severe famine and displacement.



The War in Tigray. Source: Olivier Jobard.

Scholars debate whether displacement can worsen or extend conflict within a country. But, in general, **how can this happen?**

➤ **Resource competition:** A sudden influx of refugees or IDPs, sometimes in the millions, can intensify competition for essential resources.

➤ **Ethnic rivalry:** The ethnicity of refugee populations may clash with host communities by igniting preexisting rivalries which can escalate into conflict.

➤ **Political sympathy:** IDPs are likely to support rebels from the same ethnic groups.

➤ **Recruitment and support:** IDP camps can serve as sources of supply, recruitment, and logistical bases. Limited employment opportunities make camps prime targets for combatant recruiters.

Figure 1: Reported causes of displacement.

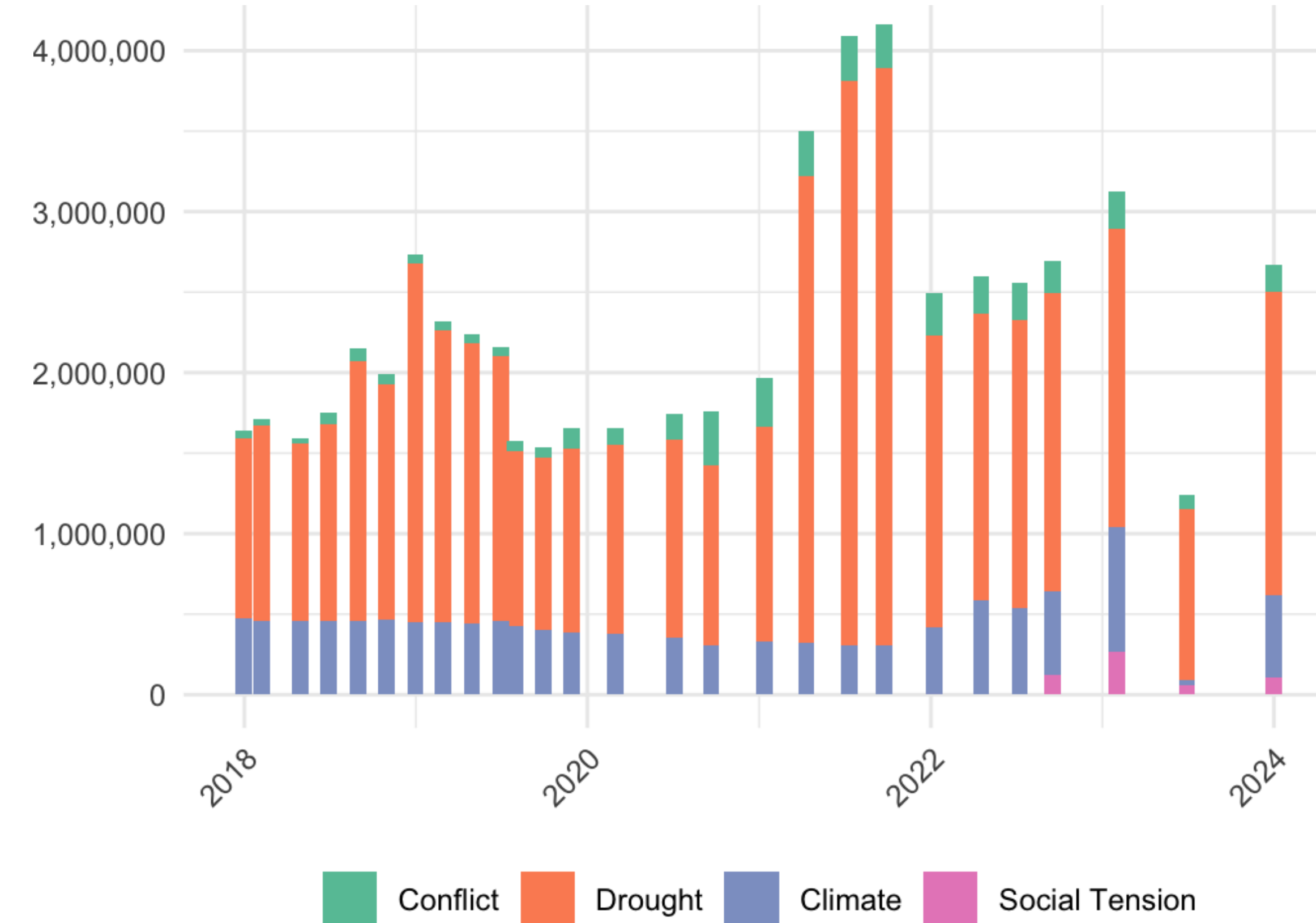
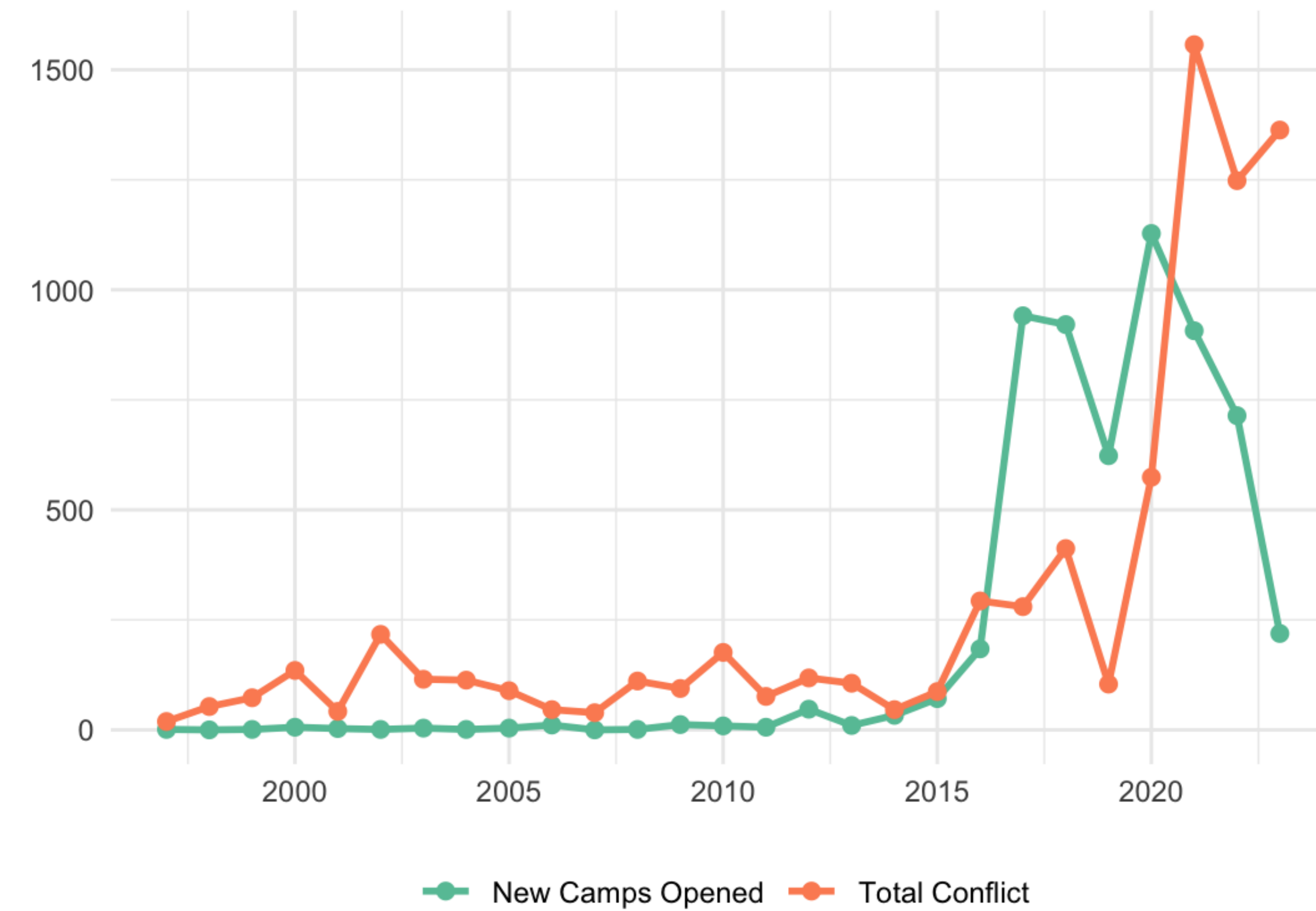


Figure 2: Total new camps opened vs total conflict events per year.

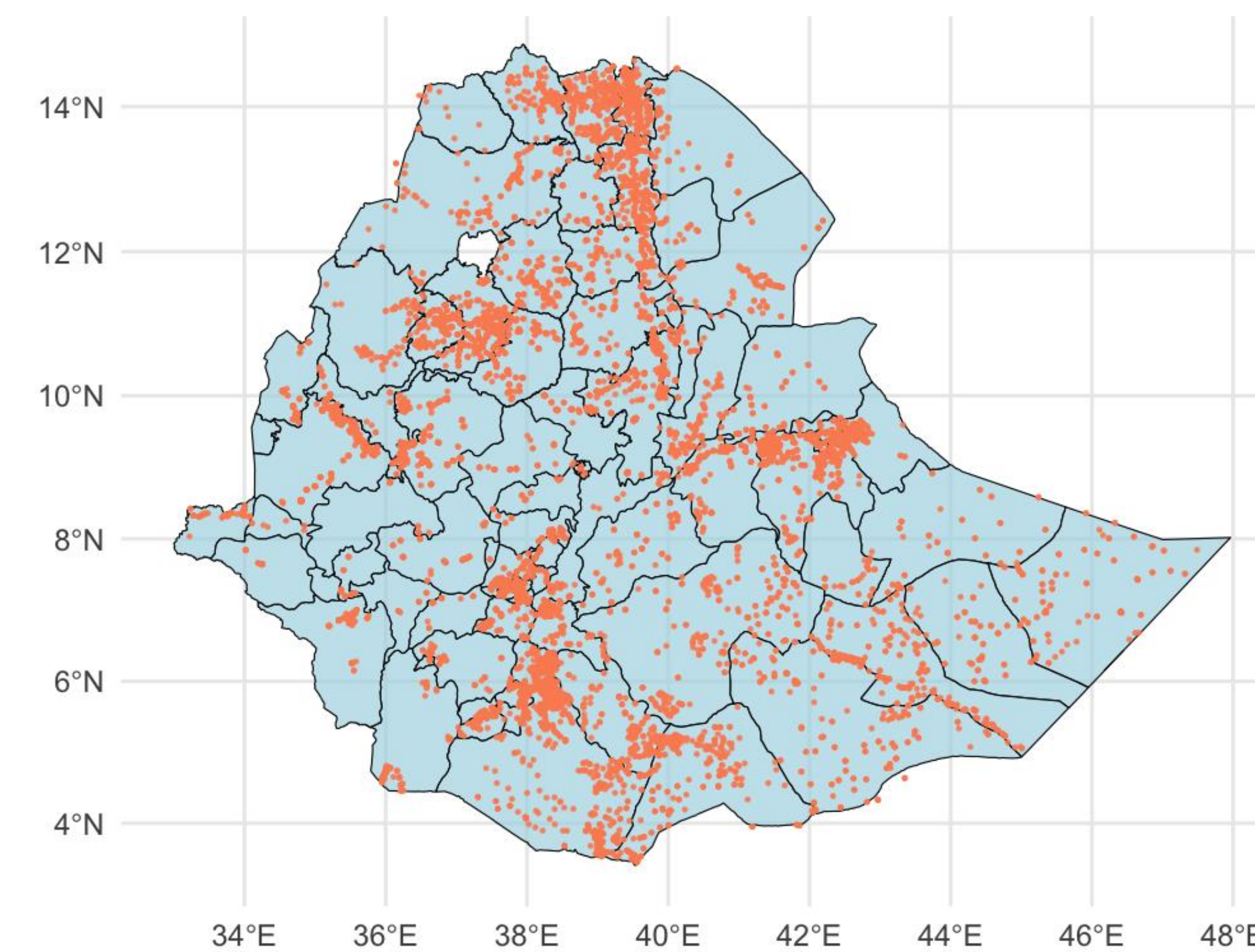


## Data

I track a panel of 76 zones in Ethiopia from 2017 to 2024, with near-quarterly observations of spatiotemporal data on **internal displacement, precipitation, and conflict events** for each zone.

➤ **Displacement data:** Retrieved from the Disaster Tracking Matrix (DTM). Their data includes total IDP estimates, site coordinates, causes of displacement, etc.

Figure 3: Zones in Ethiopia with sites (Jan. 2017 to Dec. 2023).



➤ **Limitations:** Data gaps occur in conflict-affected regions where collection is unsafe. To address this, I interpolate total IDP values.

➤ **Conflict data:** Conflict data is from ACLED, a database that tracks conflict events, their frequency, nature, and associated fatalities.

➤ **Precipitation data:** For precipitation data, I use high-resolution (0.05°) rainfall data from the Climate Hazards Group Infrared Precipitation with Stations (CHIRPS).

## Methods

I use a two-way fixed effects estimator to measure displacement's impact on conflict while controlling for precipitation. For robustness, I cluster my standard errors by zone.

$$\log(\text{conflict} + 1)_{i,t} = \alpha_i + \lambda_t + \beta_1 \text{IDP}_{i,t} + \beta_2 \text{Precip}_{i,t} + \epsilon_{i,t}$$

- $\log(\text{conflict} + 1)_{i,t}$ : Natural logarithm of conflict events plus one.
- $\alpha_i$ : Zone fixed effects.
- $\lambda_t$ : Time fixed effects..
- $\beta_1 \text{IDP}_{i,t}$ : Total number of internally displaced persons.
- $\beta_2 \text{Precip}_{i,t}$ : Average precipitation during time interval
- $\epsilon_{i,t}$ : Idiosyncratic error term.

## Results

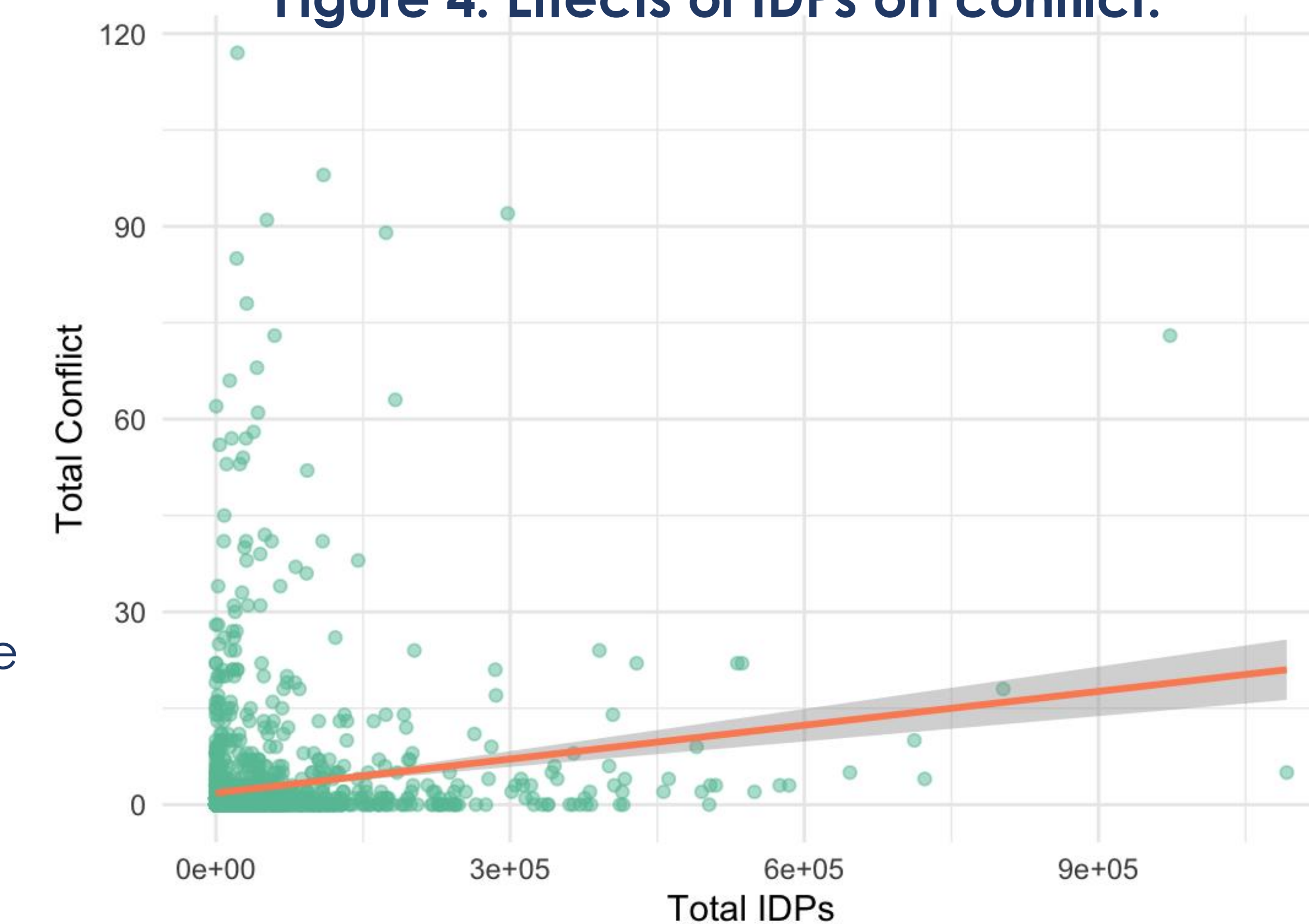
The level of IDPs has a statistically significant positive effect on total conflict, although the effect is extremely small.

**“Adding 1,000 displaced persons is associated with an increase of 0.018 conflict events.”**

Variable	Log of Conflict
Total IDP ( $\beta_1 \text{IDP}_{i,t}$ )	0.000018*** (0.00000298)
Mean precipitation ( $\beta_2 \text{Precip}_{i,t}$ )	0.117170 (0.10683300)
Observations	2,128
$R^2$	0.187962
RMSE	7.70944

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Figure 4: Effects of IDPs on conflict.



## Conclusion

➤ My study adds to the growing literature on the effects of displacement on conflict.

➤ My finding highlights the importance of addressing displacement issues, as they may exacerbate conflict in affected regions.

Thank you to Dr. Felix Pretis, Dr. Colette Salemi, Dr. Donn Feir, and Dennis Lux.