Belonging, Violence, and Natural Resource Governance
Experimental evidence on preferences from Mali and Niger

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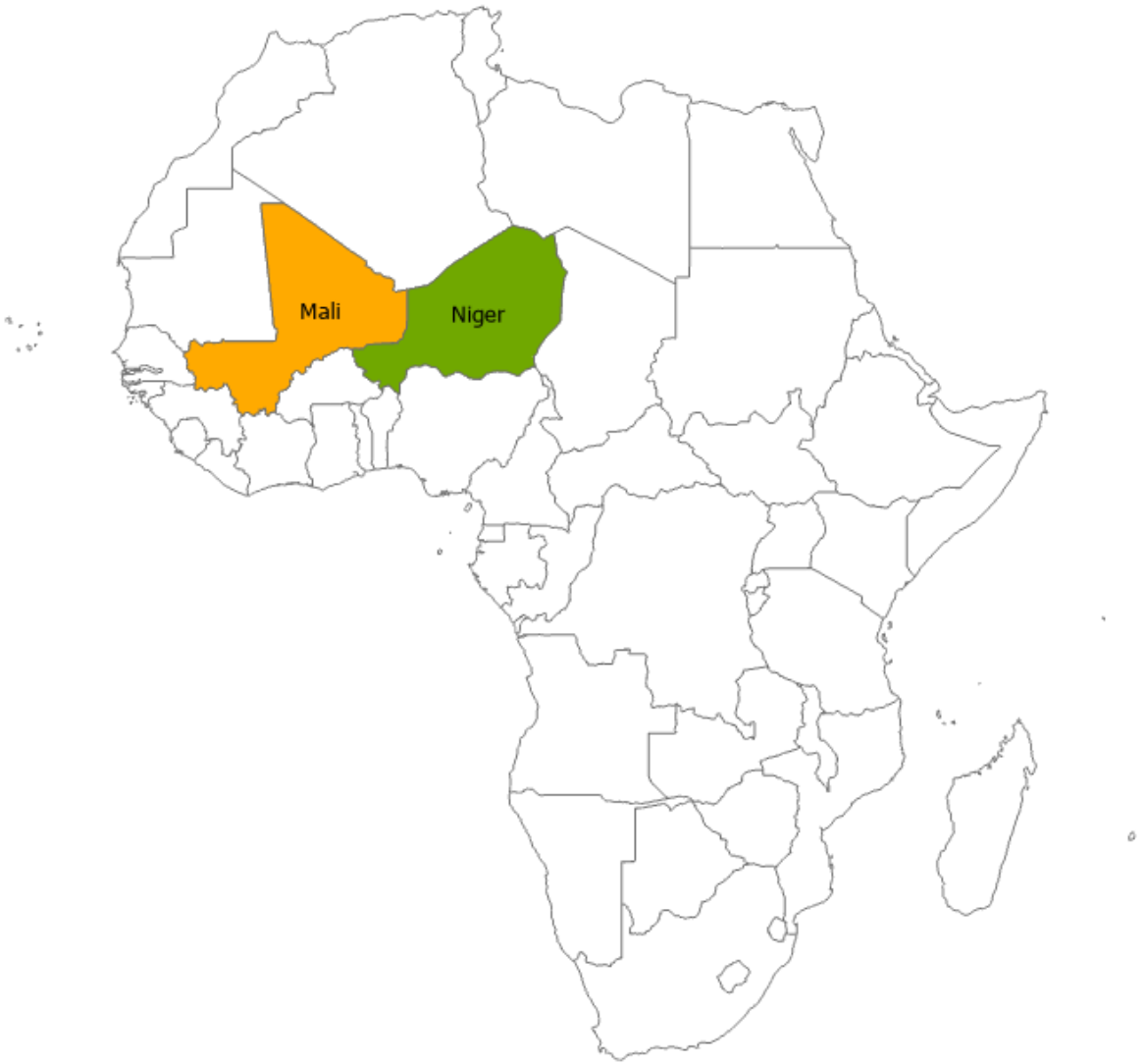
Motivation

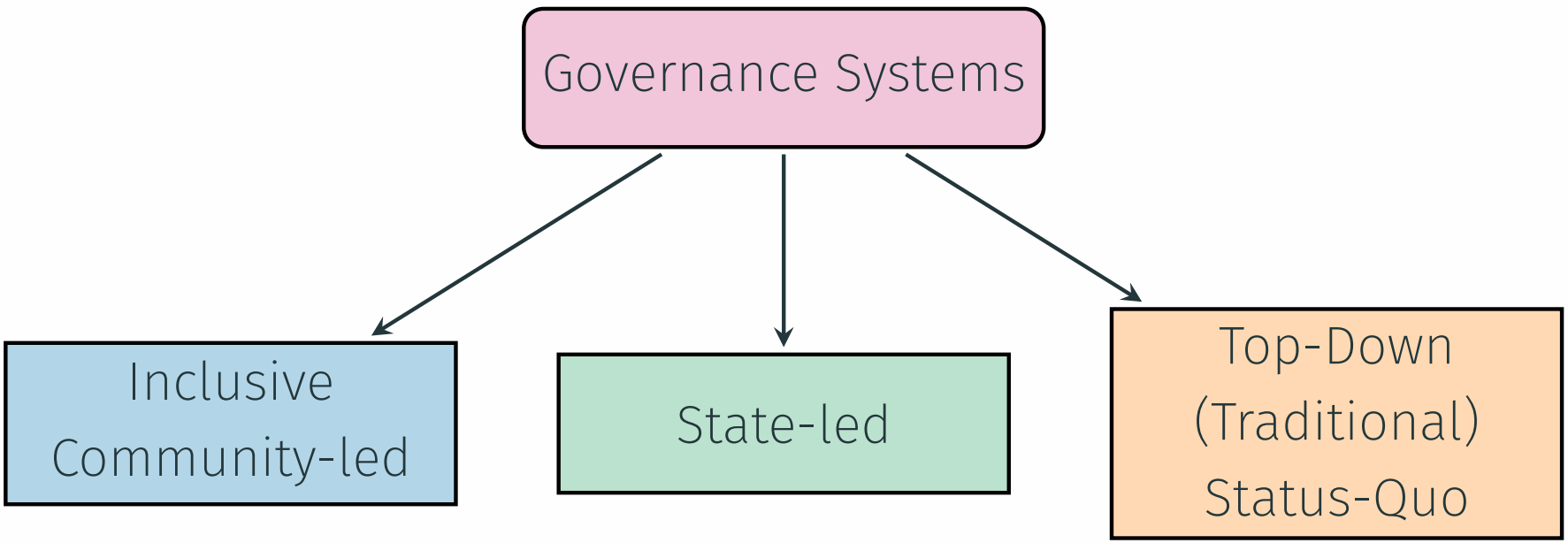


Research Questions

1. In fragile areas, what are people's expectations regarding different types of natural resource governance systems?
    - Climate resilience
    - Conflict management
    - Land management

2. Does exposure to conflict affect these perceptions?
3. How does identity shape these expectations?

Some Definitions: Governance



Some Definitions: Identity

- **Autochthone:** Descends from the initial settlers and hold customary claims over the land.
- **Allochthone:** Person with a different ethnic background that does not descend from the original settlers in the region.

Overview

- Use of a randomized survey experiment in rural areas in Mali and Niger.
- Introduce hypothetical inclusive vs. non-inclusive governance scenarios.
- Five questions to elicit expectations regarding the assigned governance system
- Part of an annual survey of the Justice and Stability in the Sahel (JASS) Program, funded by the Foreign and Commonwealth Development Office (FCDO) and implemented by the International NGO Mercy Corps.
- We match the data with conflict data from the Armed Conflict Location & Event Data (ACLED) to assess persistent levels of conflict.

Preview of the Results

- Respondents presented with an inclusive, community-led governance system were consistently more optimistic of their community's ability to reduce conflict and cope with environmental stress.
- Respondents exposed to the state-led governance system are slightly more optimistic than the top-down status quo respondents.
- Areas with higher levels of conflict show persistently lower expectations for **any** type of governance system. People's knowledge of violent confrontations do not have an effect.

Contributions

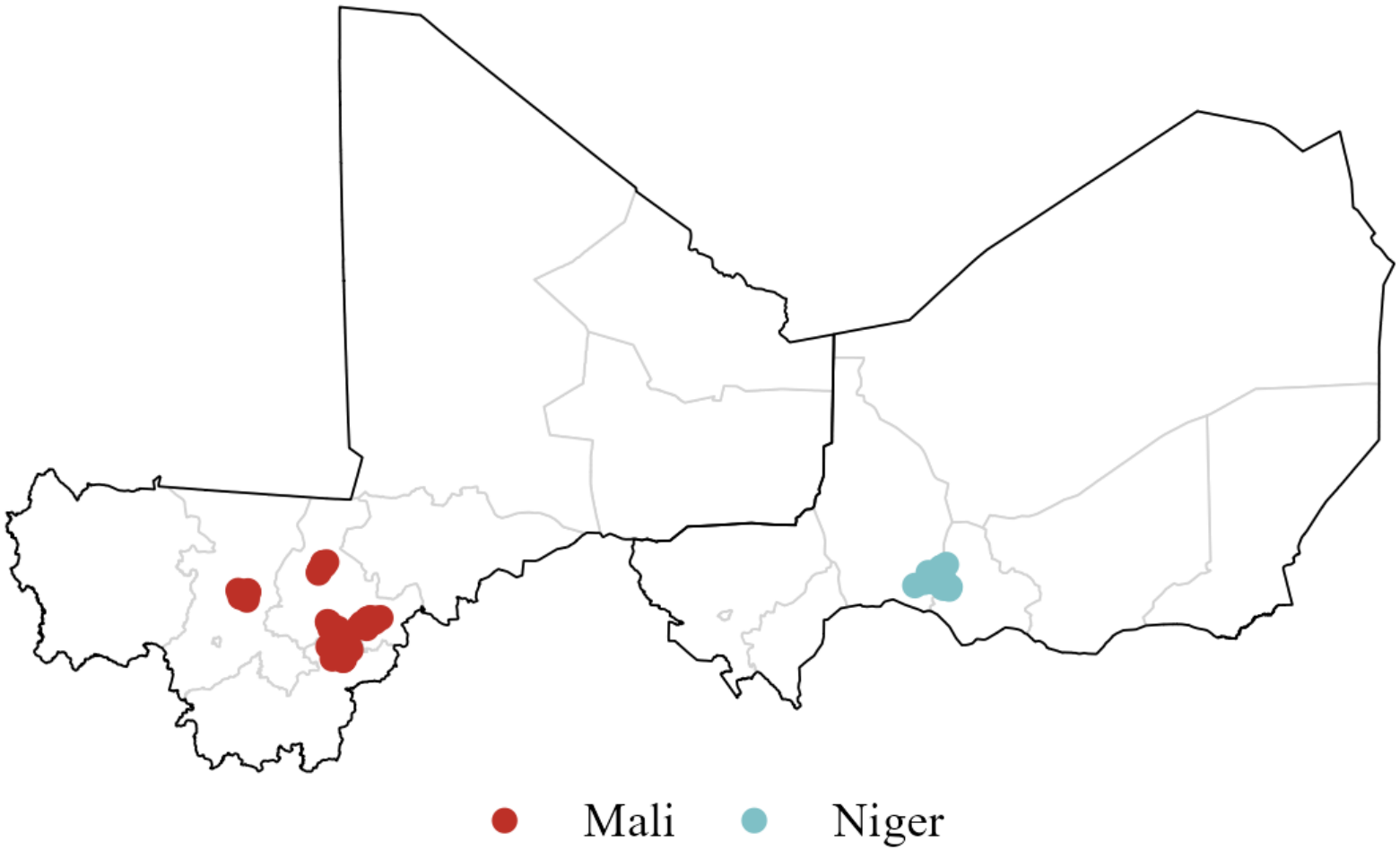
- Need to move beyond the traditional vs. formal institutions dichotomy (Honig, 2017; Boone, 2014, 2024; Englebert, 2000; de Soto, 2000);
- Community-led governance to facilitate natural resource governance (Ostrom, 2015; North, 1990);
- Micro-level, causal evidence on how resource governance shapes conflict dynamics

Outline of the Presentation

1. Context
2. Survey Experiment
3. Empirical Analysis
4. Results
5. Conclusion

Context

Study Area

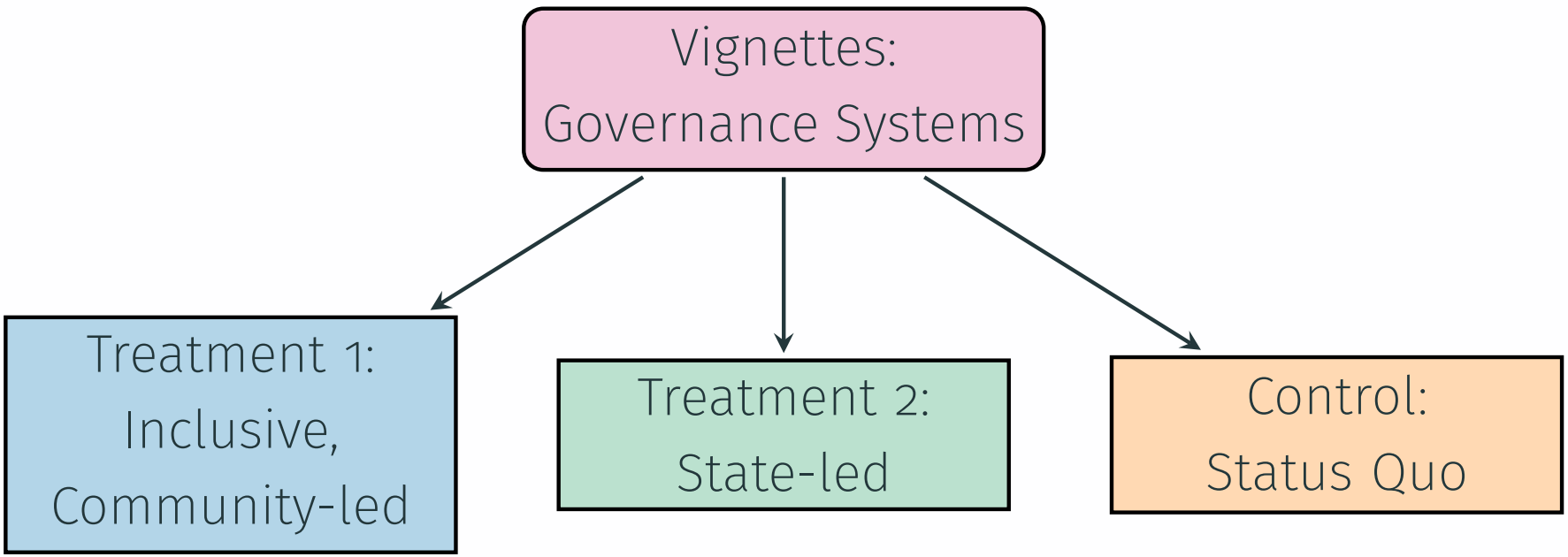


Context

- Political and economic issues exacerbated by climate hazards which have increased in intensity and frequency.
- Ongoing conflict in Niger and Mali have eroded the perceived legitimacy of the state.
- Traditional authorities have large influence over matters of local governance (Lust, 2022; Afrobarometer, 2020)
- Underprovision of land (and other natural resource) governance (Winters and Conroy-Krutz, 2021).
- Ethnic heterogeneity further complicates it (Funjika and Honig, 2024).

Survey Experiment

Structure


Vignettes:
Governance Systems
Treatment 1:
Inclusive,
Community-led
Treatment 2:
State-led
Control:
Status Quo

Vignette: Treatment 1

"As you know, communities are facing challenges in managing natural resources (e.g., water, forests, land) due to the impacts of climate change, such as droughts, floods, and soil degradation. Imagine that to address these challenges, your community has established a **community-led natural resource governance system**. Under this system, local stakeholders, including farmers, community leaders, landowners, and resource users, meet regularly to make decisions about resource management. These meetings are inclusive, and decisions are made by consensus. The system emphasizes cooperation, and conflicts are addressed through local mediation and dialogue. External organizations, such as NGOs, provide support by offering training on sustainable practices and climate adaptation strategies, but the community makes the decisions about resource use."

Vignette: Treatment 2

"As you know, communities are facing challenges in managing natural resources (e.g., water, forests, land) due to the impacts of climate change, such as droughts, floods, and soil degradation. Imagine that to address these challenges, your community has established a **centralized, government-led natural resource governance system**. Under this system, decisions about resource management (e.g., water allocation, forest use, land management) are made by government agencies at the national or regional level. The government sets regulations and policies for how resources are used and enforces them with support from law enforcement. Local communities have little input in the decision-making process, though they may receive financial incentives or technical support from the government to help adapt to climate change. Conflicts over natural resources are resolved through legal channels or government-appointed arbitrators, rather than community dialogue"

Vignette: Control (Status-quo)

"As you know, communities are facing challenges in managing natural resources (e.g., water, forests, land) due to the impacts of climate change, such as droughts, floods, and soil degradation. Imagine that your community continues to manage natural resources **in the same way it has been doing for years**."

Follow-up Questions

No.	Question	Expectation
1	Do you think there would be an increase in resilience to climate-related challenges (e.g., droughts, floods, land degradation) within the community? [yes/no]	Resilience
2	Do you think the system will reduce conflicts over natural resources (e.g., water, land, forests) in the community? [yes/no]	Reduce Conflicts
3	To what extent do you trust that land-related issues will be managed fairly and transparently? [Not at all/ a little/neutral/somewhat/completely]	Trust
4	Do you believe that the resolution of conflicts/disputes will be equitable? [yes/no]	Equitable
5	Do you believe that the authorities will voice concerns and make decisions that benefit all members of the community? [yes/no]	Benefits All Members

Empirical Analysis

Data

- 3,687 respondents in HH in program areas and comparison areas.
- Conflict data: Total events at the village level in the year before the start date of the survey.
- The survey was carried out in December 2024.

Estimation

$$Y_{iv} = \beta_1 \mathbf{T_i} + \beta_2 \mathbf{X}_i + \gamma_v + \epsilon_{iv} \tag{1}$$

$$Y_{iv} = \beta_1 \mathbf{T_i} + \beta_2 \mathbf{T_i} \cdot M_i + \beta_3 M_i + \beta_5 \mathbf{X}_i + \alpha_v + \epsilon_{iv} \tag{2}$$

Notes:

- Standard errors clustered at the village level.
- Controls include: Age, age-squared, female, and which (if any) program activities the respondent participated in.

Results

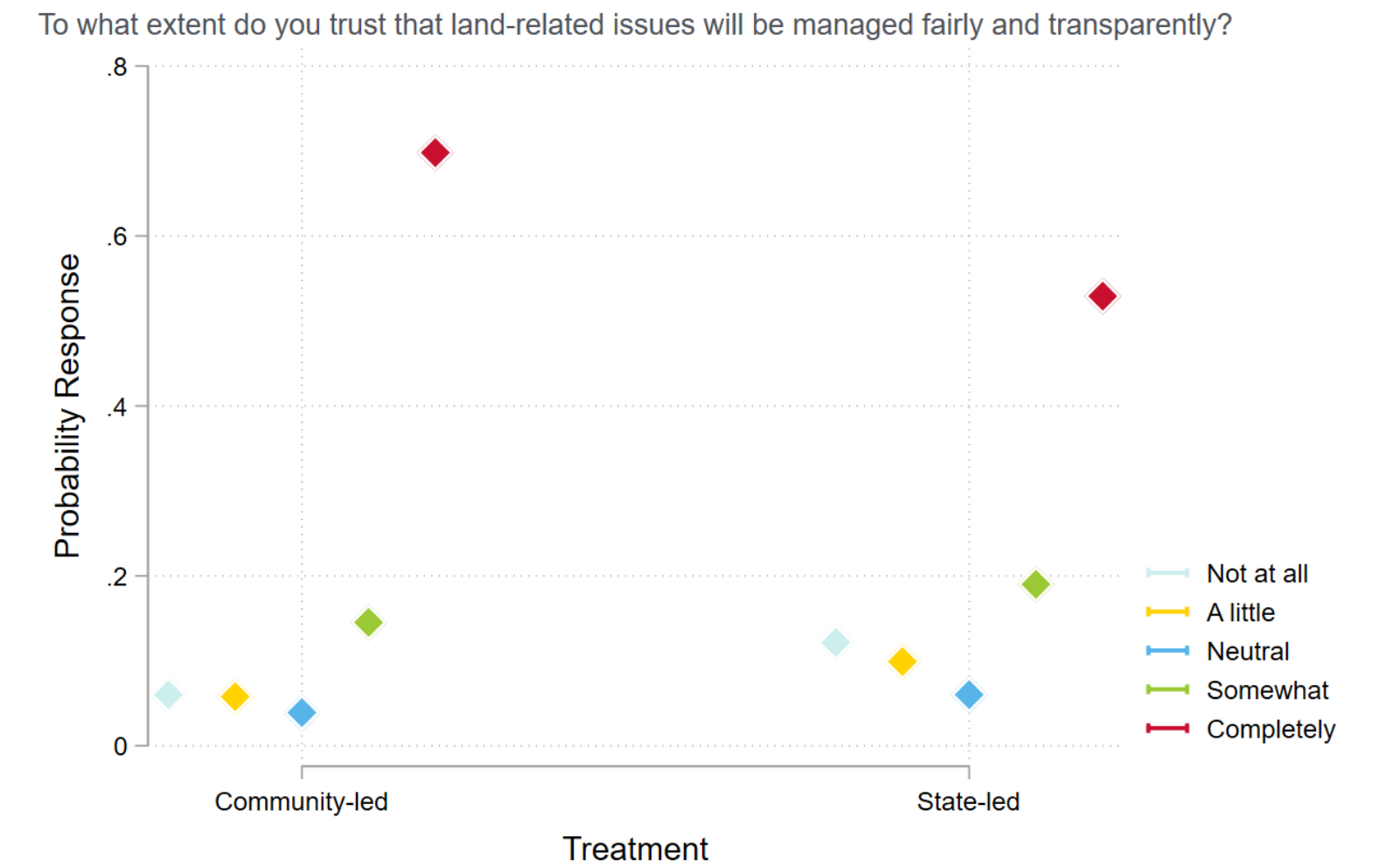
Governance Perceptions

	(1) Resilience	(2) Reduce conflicts	(3) Equitable	(4) Benefit all members
Communuity led	0.184***	0.226***	0.198***	0.188***
	(0.023)	(0.023)	(0.019)	(0.021)
State led	0.009	0.033*	0.031**	0.040**
	(0.019)	(0.017)	(0.015)	(0.016)
N	3385	3455	3470	3320
R^2	0.160	0.191	0.182	0.203
Mean Outcome	0.728	0.767	0.797	0.802
SD Outcome	0.445	0.423	0.402	0.802
δ Inclusive	1.872	2.849	2.127	2.122
δ State	0.136	0.513	0.643	0.987

Clustered standard errors in parentheses

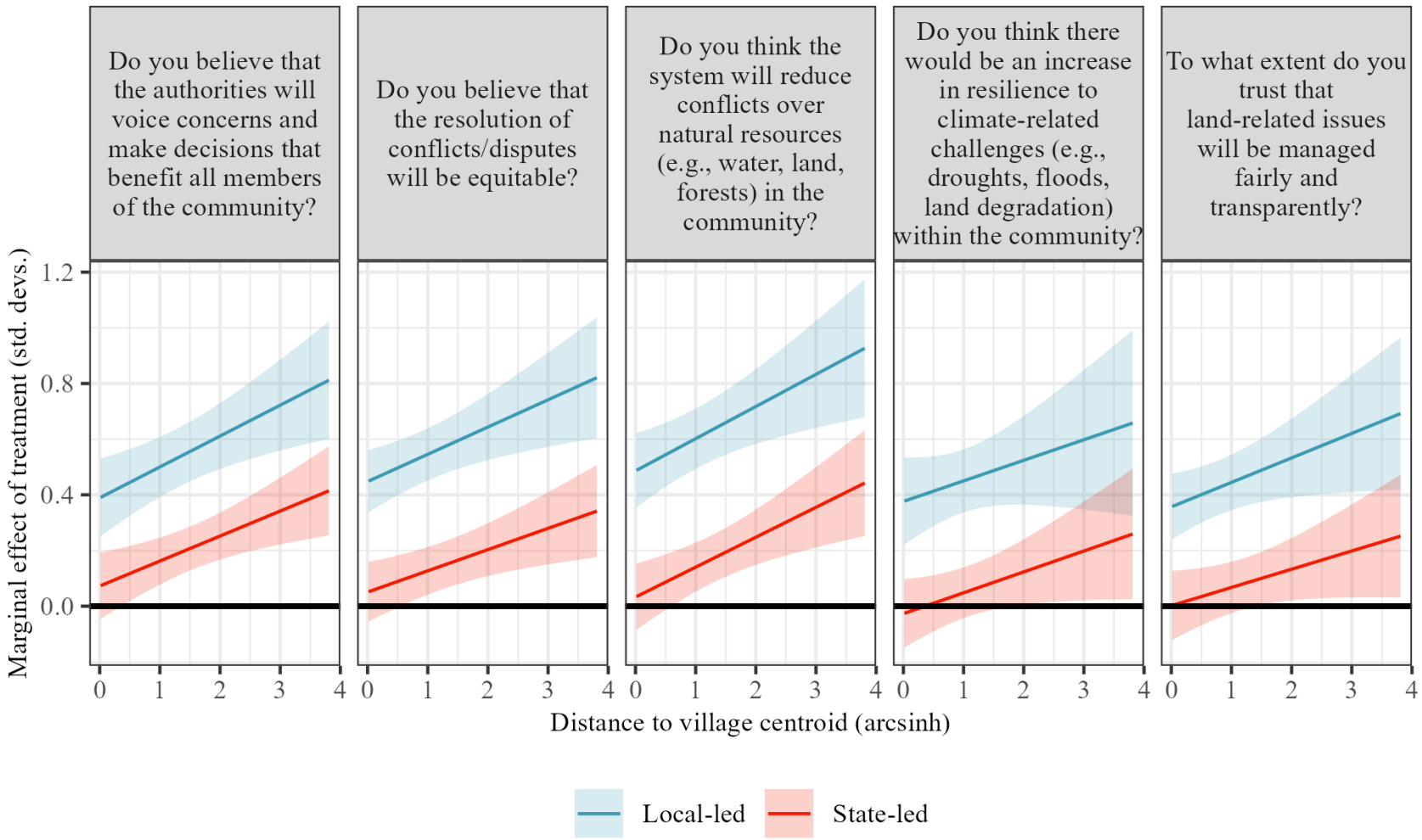
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Trust



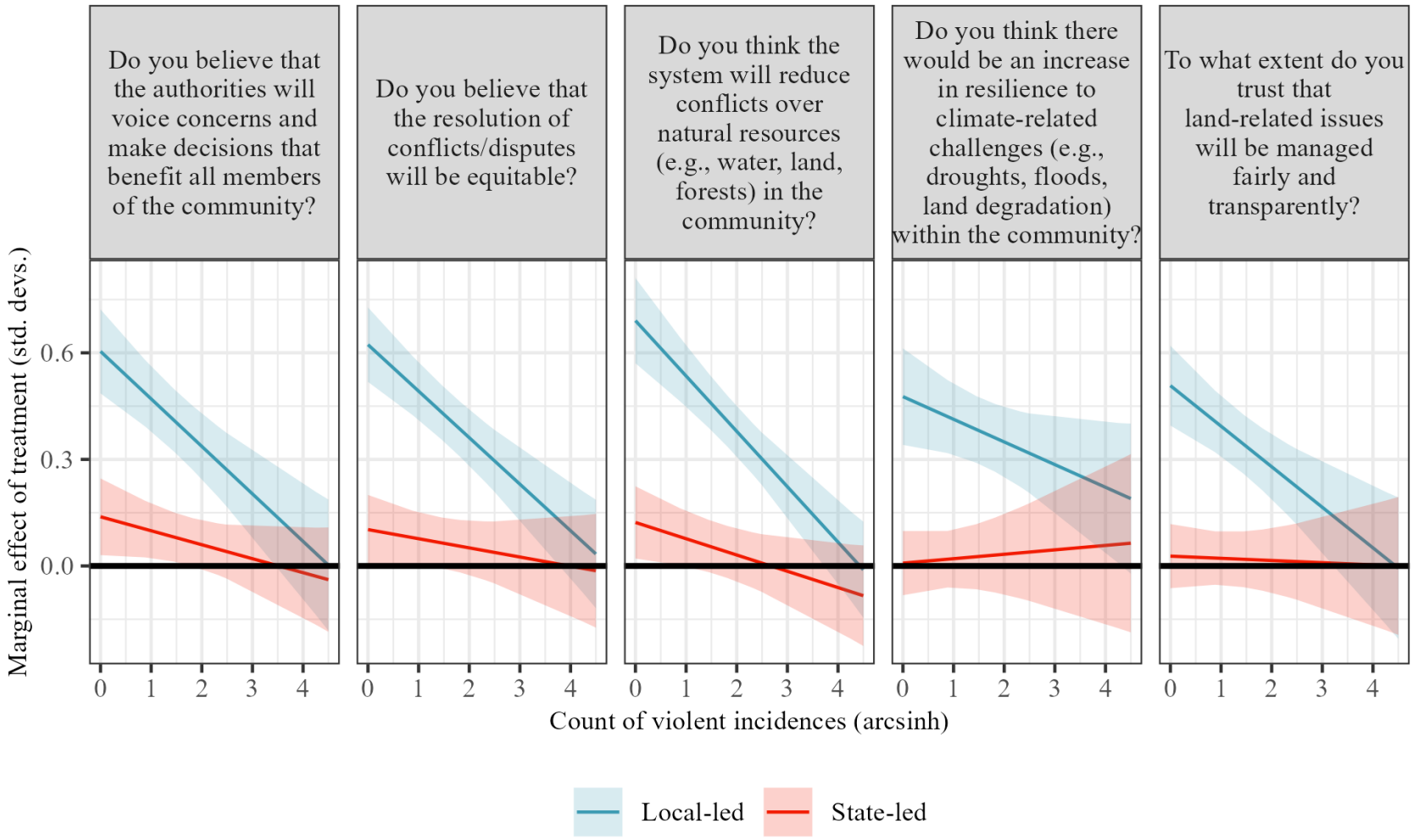
O. Logit

Heteregenous Effects: Ethnic Identity



HE. Allochthones

Exposure to Conflict: Conflict Events



ACLED

Conclusion

Conclusion

- Households exposed to community-led governance vignette exhibited more optimistic expectations compared to those exposed to the status quo or centralized governance treatment.
- Violent environments appear to reduce trust in the potential of any governance system to improve the management of natural resources.
- Ethnic identity, proxied by the distance to the village centroid, is a good predictor of preference of state-led and community-led

Q & A

Thanks!

Ordered Logit- Trust

	(1)	(2)
Local treatment	0.860***	0.875***
	(0.089)	(0.089)
State-led treatment	0.059	0.055
	(0.081)	(0.081)
Demographic controls		X
Village FEs	X	X
Num.Obs.	3489	3489
Mean of outcome	NA	NA

Heteregeneous Effects: Allochthones

	(1) Resilience Resilience	(2) Reduce conflicts	(3) Trust	(4) Equitable members	(5) Benefit all
Community-led	0.177***	0.222***	0.526***	0.191***	0.181***
	(0.023)	(0.023)	(0.065)	(0.019)	(0.021)
State-led	0.009	0.032*	0.037	0.030*	0.039**
	(0.018)	(0.017)	(0.054)	(0.015)	(0.016)
Community × Allochthone	0.514***	0.428***	1.360***	0.513***	0.448***
	(0.121)	(0.115)	(0.293)	(0.114)	(0.116)
State × Allochthone	0.235	0.183	-0.028	0.178	0.142
	(0.143)	(0.160)	(0.337)	(0.154)	(0.132)
N.	3385	3455	3565	3470	3320
R^2	0.170	0.192	0.176	0.190	0.212

Clustered standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

ACLED Events

	(1) Resilience Resilience	(2) Reduce conflicts	(3) Trust	(4) Equitable members	(5) Benefit all
Community-led	0.212***	0.292***	0.709***	0.251***	0.241***
	(0.031)	(0.026)	(0.080)	(0.021)	(0.024)
State-led	0.004	0.052**	0.039	0.041**	0.055**
	(0.021)	(0.022)	(0.064)	(0.020)	(0.022)
Community × ACLED	-0.028*	-0.066***	-0.159***	-0.053***	-0.053***
	(0.014)	(0.009)	(0.036)	(0.010)	(0.010)
State × ACLED	0.006	-0.019**	-0.009	-0.010	-0.016*
	(0.014)	(0.009)	(0.036)	(0.010)	(0.010)
N	3370	3440	3548	3455	3305
R^2	0.158	0.195	0.173	0.184	0.205

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$