

what's so communal about communities in rural India? social distance, village conflict, and open defecation



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introduction

The world's open defecation is increasingly concentrated in rural India. Many policies and programs rely on neighbors to collaborate in order to reduce OD.

High levels of social fragmentation in rural India, along dimensions of religion, caste, age, and sex, may make currently popular strategies ineffective.

Objective: To understand if social fragmentation in rural India can help explain variation in open defecation. If so, social distance may reduce the effectiveness of programs that motivate behavior change through a shared sense of community and collective action.

motivation: could CLTS help rural India?

CLTS is less active in India, on average, than in some other countries. A 2012 literature review of the effectiveness of "community led total sanitation" approaches in the grey literature found that systematic evaluation and critical reflection were needed to understand the impact of these community-level techniques on changing behavior. (PLAN International and UNC's Water Institute)

data

1. India Household and District Survey (IHDS), 2005, nationally representative, 41000+ HHs
2. Sanitation Quality, Use, Access, and Trends Survey (SQUAT), 2014, 3000+ HHs in rural Haryana, Rajasthan, Bihar, UP, & MP.

results

IHDS: People who report more harmony/less conflict in their village are less likely to defecate in the open.

People who report their village has "a lot of conflict" are more likely to defecate in the open than people who report their village has "some conflict." They, in turn, are more likely to defecate in the open than people who report that people in their village "get along."

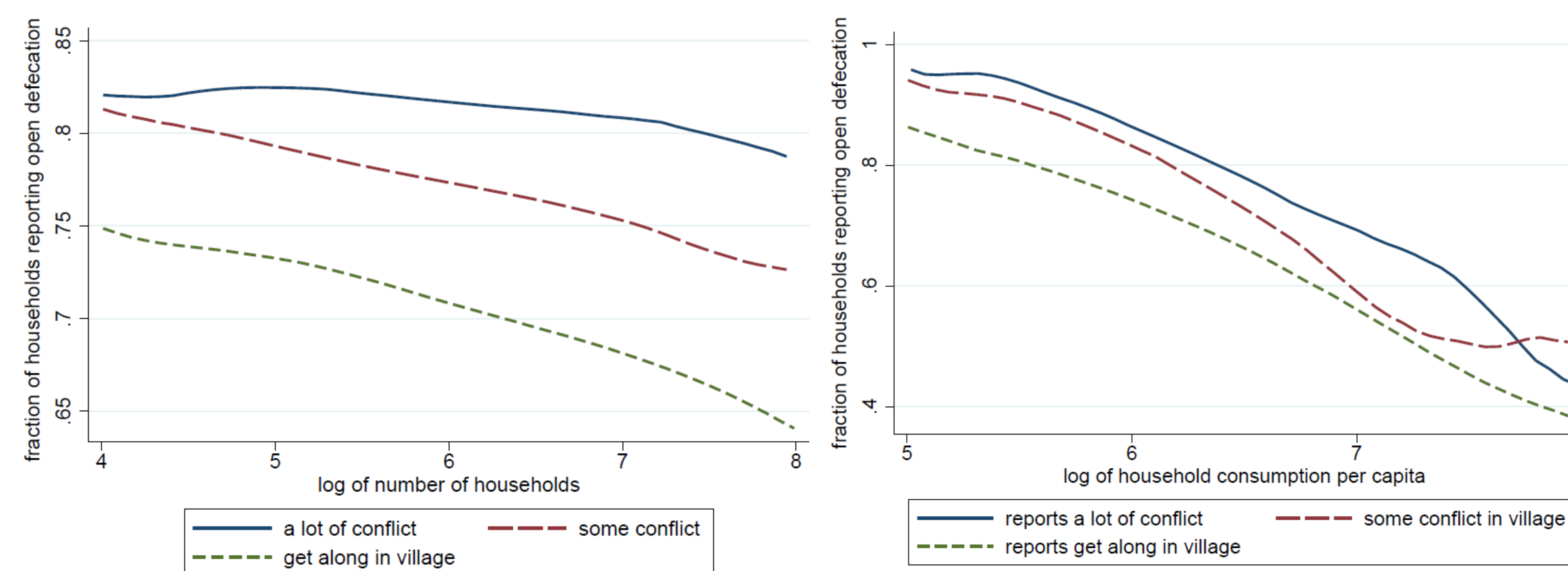
(Columns replicate the basic regression result with additional controls, to demonstrate robustness)

People who report more harmony/less conflict in village are less likely to defecate in the open, IHDS.

	(1)	(2)	(3)	(4)	(5)
	dependent variable: household open defecation				
conflict in village: a lot					
conflict in village: some	-0.0403+ (0.0208)	-0.0400* (0.0201)	-0.0378+ (0.0199)	-0.0410* (0.0198)	-0.0310+ (0.0163)
conflict in village: get along	-0.131*** (0.0199)	-0.123*** (0.0191)	-0.120*** (0.0184)	-0.108*** (0.0184)	-0.0563*** (0.0145)
log of consumption per capita				-0.178*** (0.00927)	-0.140*** (0.00858)
eight indicators for household social group		✓	✓	✓	✓
fraction of village in eight social groups			✓	✓	✓
state fixed effects					✓
constant	0.798*** (0.0167)	0.634*** (0.0345)	-0.518*** (0.121)	0.741*** (0.110)	1.177*** (0.153)
n (households in rural India)	26,449	26,449	26,449	26,430	26,430

Standard errors clustered by survey primary sampling unit in parentheses.

These results hold for all village sizes (left graph) and at almost all levels of consumption (right graph), showing that these differences are not driven by wealth or other properties of the village.



SQUAT: At the village level, those who report conflict are more likely to perceive that most people in their village defecate in the open. There is suggestive evidence that they also have more actual OD in their village. This question specifically asks about caste-based conflict. (graphs not shown)

conclusions

National level analyses find that open defecation is more common in villages where social conflict is more likely. SQUAT data analysis suggests that people's perceptions of their neighbors' behavior is also associated with their perception of conflict. This, in turn, may play a role in their own sanitation practices.

In terms of policy, the term "community" must not be oversimplified, as people in rural India often identify themselves more closely along dimensions of religion, caste, age, and/or sex, than they do according to physical geography.

It may not be safe to assume that everyone in a physical local area will cooperate to reduce open defecation.

areas for further research

1. More needs to be understood about situations in which community-based methods are likely to work and those in which they are not.
2. Further research can explore why conflict is associated with open defecation. Possibilities include collective action problems such as the tragedy of the commons, as well as more caste-specific explanations, perhaps including historical links between caste and sanitation.