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Contact could help establish cooperative norms and institutions in a number of ways. In our fieldwork, we see evidence that contact strengthened existing conflict resolution structures, like leader arbitration. The leadership of each group convene with the "plaintiff" and "defendant" to arbitrate cross-group disagreements, such as cows caught grazing on farmland. Our research partners on the ground noted that these structures became more effective in ECPN communities because pastoralists became more aware of the financial value of the crops destroyed by cows and farmers became more aware of the difficulty of controlling and corralling thousands of cows.<sup>18</sup> Contact could also encourage ingroup policing: ingroup members punishing other ingroup members who violate the rights of outgroup members (Ditlmann and Samii 2016; Fearon and Laitin 1996). If groups "punish [their own] miscreants" (Fearon and Laitin 1996, 722), in a way that is visible to the other side, then the other side does not need to retaliate against the transgression.<sup>[^ingroupPolice]</sup> Visible ingroup policing shows each side that the other can be trusted, alleviating commitment problems.

This paper also teaches us about settling disputes between sedentary peoples and semi-nomadic peoples. Violent conflict between settled peoples and semi-nomadic peoples is on the rise throughout Africa (Kuusaana and Bukari 2015; Mwamfupe 2015; Nnoko-Mewanu 2018). This study focuses on the Fulani, the largest semi-nomadic people on Earth (Encyclopedia 2017). Their way of life makes them targets for violence throughout Africa. Along with this conflict in Nigeria, Fulani in Mali have been the targets of violence so severe

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<sup>18</sup> We are especially grateful to Israel Okpe for his observations about farmer-pastoralist conflict dynamics.

outcomes at baseline and endline in a treatment group and in a control group as a means of capturing the secular trend.

We believe the program improved group relations and the prospects for peace because groups shared a latent interest that could be activated by contact. The shared interest was "latent" because it was not being identified by the groups in conflict. Cooperative contact helped reveal the latent shared interest to both groups by demonstrating how the groups can work together to achieve a common goal and removing psychological and social barriers to identifying the shared interest. Contact also provides the groups with opportunities to send costly signals of their intent to cooperate, which are important for intergroup cooperation (Kydd 2000). More studies need to be conducted to determine the limits of contact and the conditions under which contact can effectively improve intergroup relations.

This study also points to an opportunity for collaboration between scholars of intergroup contact and scholars of conflict. These literatures are often concerned with the same end goal – reducing conflict – but rarely speak to one another. Conflict scholars often see conflict as a bargaining problem, and violence as a bargaining failure. The conflict literature points to a lack of trust as the primary cause of conflict and usually posits a strong third party actor as necessary to guarantee peace. Intergroup contact research hints that intergroup contact can create cooperative norms and institutions that serve the same function as a strong third party. Improving relations – especially improving trust – through psychological interventions like intergroup contact can help groups overcome commitment problems and reduce the likelihood of violence.

our self-report results for primary outcomes are not due to social desirability bias. More details about the placebo analysis are available in Appendix B.

## Mechanisms: Empathy, Threat, and Ingroup Expansion

Our results suggest that ECPN improved intergroup relations between farmers and pastoralists. We also undertook an exploratory analysis to learn the mechanisms through which ECPN affected attitudes. Based on the literature about contact theory, we looked for evidence that ECPN worked through empathy and perspective-taking, reduced feelings of threat, and expansion of the respondent's ingroup to include the former outgroup. / goal

Our exploratory analysis suggests that ECPN may have worked through increasing empathy. ECPN led to increased empathy in the community and individual-level analyses. In turn, increased empathy correlated with improved intergroup affect in the community-level data and with increases in intergroup affect and intergroup contact at the individual level. Increased perspective-taking also correlated with intergroup affect and intergroup contact in both analyses. ECPN may have led to increased perspective-taking, though not quite to a statistically significant level. This analysis suggests that increased empathy is a plausible mechanism through which ECPN improved intergroup relations. Because empathy was not randomly assigned, though, it's equally plausible that ECPN improved intergroup affect and fostered intergroup contact, and that those outcomes led to increased empathy. ACD

There is no evidence that ECPN reduced perceptions of threat or expanded perceptions of the ingroup. ECPN did not effect either survey index, and the public goods game shows that

The number of farmers present in the markets does not change in either group, which makes sense because the market is inside the farming community.

Figures 5 and 6 show the descriptive change in contact for treatment and control communities. The community-level self-reports show that intergroup contact declined sharply in control communities but rose slightly in treatment communities. It is impressive that ECPN increased contact while the social environment led to a sharp decline in control sites. The secular decline is due to the displacement in Benue, where intergroup contact went down for every group, though it declined far less in treatment sites. In Nassarawa, intergroup contact increased in both treatment and control sites, but far more in treatment sites.

*I still  
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shock  
factor*

At the individual-level, intergroup contact increased for committee participants but stayed largely the same for nonparticipants and controls. The large community-level effect, however, suggests that the effects of ECPN did extend to nonparticipants in treatment communities. But the effect did not extend to the type of nonparticipant who we could track down and resurvey.

## Insecurity

ECPN's substantially decreased feelings of insecurity in the treatment group. The effect is large in both the community-level and the individual-level data. Security in ECPN communities improved far more from baseline to endline than in control communities. At the individual-level, participants and nonparticipants improved equally, suggesting that these increases reflect a change in the conflict environment that impacts the entire

outcomes are measured using survey self-reports, survey experiments, a behavioral game, and monitoring of social behavior. If we observe similar relationships across multiple modes we can be more certain that the relationship is not spurious.

## Results

Our major finding is that the program improved intergroup attitudes, spurred intergroup contact outside of the program, and reduced feelings of insecurity. The program had the largest impact on respondents who participated on ECPN committees, but the effect extended to respondents who did not participate with ECPN. We use coefficient plots to report average treatment effects in our community-level data and in our individual-level data. We also use coefficient plots to show differences between participants, nonparticipants, and controls in our individual-level data. All coefficient plots show bootstrapped 95% confidence intervals and standardized coefficients.

Figure 1 and 2 shows ECPN's effect on outcomes. Figure 1 shows the main analyses, where the solid lines are the community-level data and the dashed lines are the individual-level data. Figure 2 shows participants and nonparticipants compared to controls. From top to bottom, the outcomes are ordered to correspond with: (1) intergroup attitudes, (2) intergroup contact, and (3) insecurity. Some outcomes – observations in markets and at social events, survey experiments – are only possible in the community-level analysis.

played a role if (1) ECPN affects these mechanisms and (2) these mechanisms affect intergroup affect, intergroup contact, and insecurity.

**Threat:** We use three self-report survey questions to measure threat felt by the outgroup. These questions ask if the outgroup is a threat to the respondent's community, believe in different morals than the respondent's community, and overly influence the respondent's community.<sup>16</sup>

**Empathy/Perspective-taking:** We measure empathy with two questions and perspective-taking with one question. For empathy, one question asks if the respondent's group would help a member of the other side if something unfortunate happened to that person, like a serious illness or the death of a parent. The second question is the same but asks if someone from the other group would help someone from the respondent's group. For perspective-taking, the question asks who the respondent believes is responsible for the violence between their community and the other community: the other group or both groups.

**Ingroup expansion:** We measured respondents' recategorization of their ingroup to include outgroup members with eight survey self-reports and a public goods game. Five survey questions ask respondents to answer questions about "people in this area, including people from the other group", such as if the groups share the same morals and if the groups work together to achieve common goals. Three more questions ask the respondent about

<sup>16</sup> These threat questions are based on questions from Van Zomeren, Fischer, and Spears (2007)

group. The percentage is randomized between 5%, 25%, 50%, and 75%; the percentage is the same for those two questions but varies across individuals. We take the mean response so that a respondent saying yes to both is assigned a 1, a respondent saying yes to one is assigned a 0.5, and a respondent saying no to both is assigned a 0. These questions allow us to determine if treatment communities become more willing to interact with outgroup members and if treatment communities become less sensitive to higher proportions of the outgroup.<sup>14</sup>

**Insecurity:** Our third outcome is feelings of insecurity due to conflict. The end goal of ECPN is to reduce conflict between farmers and pastoralist. The disaggregated and diffuse nature of the conflict makes obtaining an accurate measure of violent conflict extremely difficult.<sup>15</sup> Instead, we measured the effect that violent conflict has on individuals. We ask respondents if they avoid any areas during the day or night due to insecurity and if insecurity restricted them from engaging in various activities, such as grazing their animals, working on their farms, fetching water for their families, and working for wages.

*any questions asking about security  
as opposed to insecurity*

<sup>14</sup> This experiment was based on a question from the GSS asking respondents if they would favor or oppose living in a neighborhood that was half white/black.

<sup>15</sup> Asking respondents to recount the number of violent events does not accurately measure the scale of the conflict because those answers are determined by the awareness and memory of the community members. Awareness of individual violent events is low because many of the violent events occur in fields and grazing routes far from the town center and residential areas. In addition, ECPN sought to increase awareness of violent events through its conflict forums. The type of event that all community members are aware of – large massacres, burning of homes, etc... – generally lead to the disintegration of both communities as community members flee the area fearing further violence or reprisals. These large-scale events are rare and none occurred in intervention or control communities during the study.

We measure intergroup affect with survey self-reports and an endorsement experiment.

The survey questions include two measures of intergroup trust and a five item social distance scale created for the farmer-pastoralist context.

In an endorsement experiment, respondents are asked how much they support a hypothetical policy. In the treatment condition, the policy is 'endorsed' by a group that the respondent has a positive or negative opinion about. In the control condition, the policy is not endorsed by any group. The average difference in support between the endorsed and unendorsed policy represents the change in support for the policy because of the group's endorsement. In our case, we asked respondents how much they would support a water policy if it was endorsed by a farmer organization (asked of pastoralists), if it was endorsed by a pastoralist organization (asked of farmers), or if no endorsement was mentioned (the control condition posed to both pastoralists and farmers). Support was measured on a 5-point scale, where high values indicated support and low values indicated opposition.

*great*

**Intergroup contact:** Our second outcome is intergroup contact that occurs outside of the intervention. Natural, voluntary intergroup contact provides behavioral evidence that farmer-pastoralist relations are improving. We measure intergroup contact with survey self-reports, monitoring of farmer-pastoralists interactions in markets and social events, and a survey experiment.<sup>11</sup>

*great*

The self-reports and behavioral observations tell us the real, descriptive change in intergroup contact. The survey self-reports ask if and how often the respondent interacted

<sup>11</sup> Much of the self-reports and the observations are overdispersed count data. We recode all count data as rank.

Where  $i$  is the community in state  $j$ ,  $Z$  is the treatment indicator, and  $Y$  is the change in outcome from baseline to endline.  $\delta$  is a fixed effect for the state  $j$  in which the community belongs.

We use randomization inference for  $p$ -values and bootstrapping for standard errors because our units of analysis, communities and individuals, are clustered in sites and we have only fifteen sites. Analytic standard errors may underestimate the uncertainty of our causal estimate. Bootstrapping yields a distribution of possible treatment effects given the observed data, and the 95% confidence interval is between the coefficients at the 2.5th percentile and the 97.5th percentile. More details can be found in Appendix A.<sup>10</sup>

## Outcomes

We measured three outcomes to estimate the effect of ECPN: (1) intergroup attitudes, (2) intergroup contact, and (3) insecurity. If ECPN improved intergroup relations, we would expect respondents to report better attitudes towards the outgroup, more intergroup

<sup>10</sup> Randomization inference and bootstrapping: With randomization inference, we first shuffle the treatment variable to break the relationship between treatment and outcomes. Next we regress outcomes on treatment using the equations specified above. We then store the resulting coefficient. Lastly, we repeat that process 10,000 times to create the distribution of coefficients we would observe if treatment had no effect on outcomes – the null hypothesis. Our  $p$ -value is the proportion of the null distribution that is greater than or equal to our observed coefficient. Bootstrapping for standard errors is similar, but instead of shuffling the treatment indicator we resample units with replacement. In each of these procedures, we mimic our randomization process by randomizing the intervention to communities in site-level clusters and within state blocks. This means that both communities in an implementation site (farmers and pastoralists) will always be treated together and that assignment to the intervention is conducted separately in Nassarawa and Benue, just as the intervention was assigned in this study. This procedure ensures that our null distribution is created by randomizing the intervention between exchangeable units. nice

*a lot to  
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learn about the effect of participating directly in ECPN committees, and thus directly experiencing intergroup contact, relative to the effect of living in communities where ECPN was implemented but not participating in committees, and thus only experiencing indirect intergroup contact. From our baseline random sample, we identified and resurveyed (1) ECPN committee participants, (2) respondents who lived in intervention sites but did not participate in ECPN committees, and (3) respondents from the control group, who neither participated in ECPN committees nor lived in communities where ECPN was implemented.

We then compare the change of participants and nonparticipants in intervention sites to the change in control respondents. Our ability to make generalizable causal claims about participation is limited, though, because individuals in intervention sites were not randomized into participation or nonparticipation with ECPN committees.<sup>8</sup>

In total, we randomly sampled 1539 respondents at baseline in 2015. 1027 of those respondents were in intervention sites and 512 were in control sites. At endline, we resurveyed 287 of those respondents. 74 of those respondents directly participated in ECPN, 121 were in intervention sites but did not participate, and 92 were in control sites.

At endline, we also randomly sampled 1523 respondents, 1028 in intervention sites and 295 in control sites.

<sup>8</sup> We initially randomly assigned baseline survey respondents to be part of ECPN committees, but random assignment proved difficult. Many people who were not selected wanted to be on the committees, and some people who were selected were not able to participate or could not be located when the committees were launched. As a result, people self-selected into committees.

*perhaps not a bad thing - a thought it suggests that participants wanted to cooperate at the outset*

farmlands and avoid accidental crop damage. The joint economic development projects aimed to address an underlying issue related to the conflict: sharing of resources that impact livelihoods. Pollution of water, affecting both farming and livestock, was the primary issue people raised. As a result, each site chose to build a new borehole well, with members of both farmer and pastoralist communities helping to construct the wells.) neat

To ensure support of authorities, the program involved community leaders from both sides in all aspects of the project. They were involved in the quick-impact projects and joint economic development projects. We also provided mediation training to each community's leaders and held forums where the groups discussed the underlying drivers of conflict.

These projects were designed with the conditions of Contact Theory in mind. Groups (1) cooperated with (2) equal status to achieve (3) shared goals with (4) support of local authorities. These projects were meant to help the groups solve, through intergroup cooperation, problems relevant to both groups. This would reveal to groups that they shared many of the same struggles and that cooperation could help them overcome these struggles. Collectively, these project give groups the opportunity so send costly signals about their willingness to cooperate (Kydd 2000, @rohner2013war).

In the next section we describe the research design to determine the effects of intergroup contact on intergroup attitudes and behaviors.

## Research Design

We evaluate the effects of Engaging Communities for Peace in Nigeria (ECPN) with a site-level field experiment. Each site contains two communities, one of farmers and one of

Despite the forces pushing these groups into conflict, their interests are not completely misaligned. Peace is in the interest of both groups because fighting is costly, both materially and psychologically. The conflict has destroyed billions of dollars in agricultural produce, animal products, and physical infrastructure. Crops have been destroyed, cattle stolen, homes burned, and neighbors murdered. Farmers fear violence when working in their fields; pastoralists fear violence when grazing their cattle. Peace can end the economic, social, and human costs. Moreover, the groups formerly maintained mutually beneficial trade agreements: farmers trade the crop residue left on their fields for animal manure/urine to replenish soil; farmers traded grains and vegetables in exchange the pastoralists' milk and meat. Peace rekindles the possibility of these mutually-beneficial trade agreements. Cooperative intergroup contact should improve group relations by revealing these shared interests.

*Word.* Farmer-pastoralist conflict is not confined to Nigeria's Middle Belt. Farmer-pastoralist clashes are a persistent problem throughout the Sahel and savanna areas of Africa, including Mali, the Ivory Coast (Bassett 1988, 2009), Niger (Thebaud and Batterbury 2001), and Ghana (Tonah 2002). Farmer-pastoralist clashes are destabilizing to these countries politically, socially, and economically. Similar group dynamics exist in Europe with Roma, an outgroup viewed as culturally, ethnically, and linguistically distinct and apart from the rest of the polity. Similar conflict dynamics exist between Jews and Arabs, who also conflict over land that both groups claim. Scholars can learn about intergroup conflict generally from farmer-pastoralist conflict in Nigeria's Middle Belt.

economic and political rights to certain ethnic groups in each state, often denying the “settler” pastoralists the ability to own land and run for political office (Network 2014).

These stressors have sparked violent conflict between farmers and pastoralists in recent years (Ilo, Ier, and Adamolekun 2019). The most recent conflict escalation, beginning roughly in 2014, has caused 7,000 deaths (Harwood 2019) and displaced hundreds of thousands of people from their homes (Akinwotu 2018; Daniel 2018). The scale of economic damage is unknown, but farmer-pastoralist conflict *before* this escalation cost Nigeria \$13 billion annually in lost economic productivity (McDougal et al. 2015). This violence has impeded food production, leading to an impending food crisis (Hailemariam 2018; Ilo, Ier, and Adamolekun 2019; Unah 2018). Compounding matters, state governments’ response to the conflict has been to enact anti-grazing laws. These laws spark more violence because many pastoralists reasonably viewed the law as biased against their way of life. In the state of Benue, the government mobilized state-sanctioned vigilante groups called “livestock guard” to enforce the law, but the livestock guard have sometimes sought out pastoralists, rather than guard farmland (Duru 2018).

Though we have discussed the conflict as between two large and cohesive groups (“Farmers” and “Pastoralists”), the conflict occurs between numerous small, independent farming and pastoral groups. The groups typically reside a couple miles from each other – like people from the next town over. These independent groups are aware of the broader context of farmer-pastoralist conflict, but their concerns are local and mostly unrelated to what happens in distant villages. Different versions of the same story initiate and sustain

of differentiated individuals (Rimé et al. 2011), opening the possibility that past negative experiences with a few outgroup members do not characterize the entire outgroup.

interesting

## Farmer-pastoralist conflict in Nigeria's Middle Belt

Nigeria's Middle Belt is plagued by violent conflict over land use. Farmers, who claim land for agricultural production, and pastoralists, who claim land for animal grazing, increasingly clash over claims to the same land. Both groups depend on land for their livelihoods, but their divide is also cultural, ethnolinguistic, and, in some locations, religious. The pastoralists are almost homogeneously of the Fulani ethnic group, speak Fulfulde as their primary language, and practice Islam. They maintain a semi-nomadic way of life, belonging to a home community but traversing vast distances to secure access to pastureland and water as seasons change. The farmers live in sedentary villages and exploit land for agriculture. The ethnic group, language, and religion change by village. In our study, farmers came from more than a dozen ethnic groups, often residing in the same village.

Historically, these communities cooperated through trade and sharing land that was abundant relative to populations. Pastoralists would graze their animals on crop residue after harvests and follow migration paths away from farmland during planting seasons. The groups were complementary: pastoralists gained food for their animals and farmers gained animal manure/urine to replenish soil; farmers bought milk and meat from pastoralists and pastoralists bought grains and vegetables from farmers. There were tensions, but these were typically overcome by negotiation and violence seems to have

relations without a strong actor to enforce commitments.) Our results suggest that cooperative intergroup contact helped groups strengthen their own conflict resolution structures.

## Improving Intergroup Relations Through Cooperative Intergroup Contact

Cooperative intergroup contact has long been posited as a means to improve intergroup relations. Popularized by Gordon Allport (1954), the contact hypothesis assumes that negative stereotypes cause intergroup animosity. Stereotypes, natural mental shortcuts that help an individual understand his/her experiences, are especially likely to go awry and create animosity when an individual has little or no experience with members of another group. Without intergroup experience, stereotypes will misrepresent groups, create imagined differences between ingroup and outgroup members, and obscure shared interests. To remove these negative stereotypes new experiences must override them, allowing an individual to re-conceptualize the outgroup.

Allport and subsequent authors specified four conditions under which contact will remove stereotypes and improve intergroup relations. First, the contact must involve ongoing personal interaction between members of both groups. Second, both groups must have equal status in the interaction. Third, the interaction must involve cooperation towards a common goal. And fourth, the intergroup interaction must have the support of, or at least not be punished by, institutions and authorities. These conditions ensure positive interactions between group members.

So together they are sufficient. Are all four conditions necessary?  
(Reminds me of *incomplete* I guess)

social diffusion cooperative contact improves attitudes even for ingroup members with no cross-group contact.

Taken together, the existing literature suggests that cooperative contact improves intergroup relations through four steps. First, cooperative contact provides positive interactions that remove the psychological barriers – negative stereotypes, feelings of outgroup threat, and a lack of empathy – that bias perceptions of the other side. Second, without these perceptual biases, groups can identify shared interests, and cooperative contact facilitates the identification of shared interests by having the groups cooperate towards a common goal. Third, positive interactions and the identification of shared interests challenge pre-existing negative beliefs and trigger cognitive dissonance. Attitudes improve when that dissonance is resolved by rejecting preexisting negative attitudes in lieu of new positive experiences. Fourth, positive attitudes diffuse to other group members through awareness of cross-group cooperation and changing social norms.

### Cooperative intergroup contact in the context of violent group conflict

Violent group conflict poses a hard test for cooperative intergroup contact to improve attitudes. First, in the context of ongoing violent conflict, even cooperative contact towards a joint goal may not provide group members with a subjectively positive cross-group interaction. Due to psychological biases, individuals perceive cross-group interactions negatively so that those interactions conform to pre-existing beliefs; individuals also more readily store and recall negative interactions that confirm pre-existing attitudes than positive interactions that are dissonant with pre-existing attitudes (Nickerson 1998; Ward et al. 1997). If individuals perceive cooperative contact negatively, contact could make

*wow!*

from a group of anti-pastoralist vigilantes, rather than assist the vigilantes in removing the pastoralists and claiming their land. Our results also show that the intervention affected communities as a whole, not just community members directly involved in the intergroup contact. Individuals who directly engaged in intergroup contact changed the most positively from baseline to endline, but we also observe positive spillovers of trust to group members for whom we did not exogenously increase intergroup contact.

*1* This study expands our knowledge about group conflict in two main ways. First, this study teaches us about the capacity of intergroup contact to improve intergroup relations and reduce conflict. Peacebuilding organizations implement numerous contact-based interventions in violent contexts each year, but its efficacy to improve intergroup attitudes amid real-world conflict is an open question (Ditlmann, Samii, and Zeitzoff 2017; Paluck, Green, and Green 2019). To our knowledge this is the first field experimental test of a contact-based peacebuilding intervention implemented during an active conflict. The results suggest that contact-based peacebuilding programs can effectively improve relationships between conflicting groups and is especially relevant to conflict resolution in the cases of intergroup and intercommunal conflicts.

*2* Second, we contribute to the literature about informal structures, such as social norms, in solving commitment problems. Many scholars have identified group conflict as a commitment problem that is most likely to be solved by an outside actor enforcing commitments (Fearon 1994). While strong outside actors can resolve conflict by solving commitment problems, this study suggests that they are not a necessary condition for resolving conflict. Many communities in our treatment group significantly improved their *right up-front*

counter existing negative beliefs and create cognitive dissonance (Festinger 1962; Tavris and Aronson 2008). Attitudes improve when that cognitive dissonance is resolved by rejecting negative beliefs rather than justifying negative beliefs (Gubler 2013). However, by reinforcing negative beliefs and obscuring shared interests, violent conflict could dull, prevent, or even reverse the predicted positive effects of contact.

Despite these reasons for caution, there are reasons to expect cooperative contact to improve intergroup relations even in contexts of ongoing violence. Even in contexts of group violence, it is often in each group's shared interest to reach a peaceful compromise because fighting is costly (Fearon 1995). Cooperative contact to achieve a common goal provides groups with an example of cooperation towards a shared interest, and that experience can make groups imagine future interactions for shared benefit. Cooperative contact can also remove the psychological barriers to identifying shared interests, such as stereotypes and feelings of threat and anxiety. Lastly, cooperation that benefits the group should generate group pressure to cooperate, thus creating cooperative social norms.

Just a bit  
but

So - the  
in conflict  
do they  
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interests?  
Don't care  
to see?

To learn about whether cooperative contact can improve intergroup relations amidst violent group conflict, we conducted a field experiment with conflicting farmer and pastoralist communities in Nigeria. More than an occupational difference, farmers who cultivate crops and pastoralists who graze cattle define a major social cleavage in many parts of the world. These groups conflict over land rights, which define both of their livelihoods. Farmer-pastoralist conflict has escalated throughout the Sahel in recent years, and nowhere more than in Nigeria. The most recent conflict escalation has caused 7,000 deaths from 2014-2019, displaced hundreds of thousands of people from their homes, and

## Introduction

How can groups in conflict improve intergroup relations? Violent group conflict has caused 2 million deaths since the year 2000 (Sundberg and Melander 2013), forcibly displaced over 70 million people from their homes in 2018 (UNHCR 2019), threatens food supplies in numerous countries (Verwimp and others 2012), and extracts a psychological toll on participants and victims (Schomerus and Rigterink 2018). Intergroup animosity perpetuates conflict long after the original grievance is immaterial or forgotten (Deutsch 1973; McDonnel 2017; Tajfel and Turner 1979), so improving intergroup relations is vital to stem the human, economic, social, and psychological costs of violent group conflict.

*good info.*

Scholars and practitioners consider *cooperative* intergroup contact – contact in which members of two groups work together to achieve common goals – to be one of the most effective tools for improving intergroup relations.<sup>1</sup> Evidence for the hypothesis that contact improves intergroup relations, known as the contact hypothesis (Allport 1954), goes as far back as the 1950s and motivated integrated public housing (Deutsch and Collins 1951) and workplace and school desegregation (Cook 1985; Cook, Wrightsman, and Wrightsman

<sup>1</sup> We will use the term *cooperative contact* to refer to contact that meets Allport's conditions. Those conditions are (1) intergroup cooperation (2) with equal status (3) to achieve shared goals (4) with support of local authorities. Note that *equal status* does not mean that the groups must have the same status in society, but that the groups share equal status in the cooperative situation. Cooperative contact stands in contrast to other forms of incidental or unstructured contact that may not have positive effects on intergroup relations.