Public Remembrance and Political Accountability under Autocracy: Evidence from Cambodia's Killing Fields[*]

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Abstract

How does public remembrance of state violence shape politics under authoritarian rule? We study this question using the Khmer Rouge genocide in Cambodia, where mass graves, memorials, and annual ceremonies sustain the memory of the atrocities. We approximate the regime's allocation of forced labor to identify localities where repression and mass death were concentrated. Four decades later, residents report lower trust, reduced civic participation, and greater fear of violence, yet they hold stronger democratic attitudes, turn out to vote at higher rates, and support the opposition. Repression exposure also constrains rent extraction by local officials, resulting in fewer land concessions and less deforestation. We trace these effects to public remembrance. Memorials are more common where repression was concentrated, and Day of Anger ceremonies amplify political engagement, increase protest activity, and further constrain local officials. Regime-sponsored commemoration, intended to legitimize incumbent rule, can thus become an "authoritarian commons," a public venue that citizens repurpose for coordination, turning collective memory into a constraint on power under autocracy.

Keywords: State repression, Public remembrance, Political accountability, Collective memory, Authoritarian commons

JEL codes: D72, N45, O17, P48

1   Introduction

State repression on the scale of Stalin's purges or Mao's Cultural Revolution can reshape civic engagement and the willingness to challenge power. Yet tracing these legacies is hardest where they should matter most: authoritarian regimes that still punish public dissent. Punishment forces compliance, making it difficult to tell genuine support from fear. When citizens hide their views and cannot see who else would act, do the political consequences of past repression persist or fade? If they persist, does public remembrance of violence mobilize opposition or deepen disengagement?

We examine these questions in one of the twentieth century's deadliest episodes of state repression. Between 1975 and 1979, the Khmer Rouge collectivized the economy, a project that killed at least 1.7 million people, over one-fifth of Cambodia's population (Kiernan, 2008). Although multiparty elections began in 1993, the Cambodian People's Party (CPP) has maintained power since, with systemic corruption and persistent civil rights violations (Norén-Nilsson, 2016a).[1] This setting, where memories of extreme violence coexist with contemporary authoritarian rule, allows us to study how past repression shapes political behavior when open dissent remains costly.

The legacy of mass violence can weaken trust and social cohesion when fear of the state persists, but those same memories can also expose the dangers of unchecked power and fuel demands for accountability and political engagement. Whether these memories translate into political action depends on overcoming two barriers that define autocracy: self-censorship, as people fear punishment for open dissent (Kuran, 1995), and mutual uncertainty, because citizens cannot see how many others will participate (Schelling, 1960; Chwe, 2001). We argue that public remembrance, through permanent memorials and recurring public ceremonies, helps citizens overcome these two barriers.

Public remembrance sustains a society's collective memory, the shared interpretation of past events (Halbwachs, 1992), and brings that memory into public view. Permanent landmarks, including mass graves and the monuments around them, anchor memory to specific locations, keeping past repression visible despite self-censorship (Nora, 1989; Assmann, 2011). Recurring ceremonies at these landmarks, such as national days of mourning and reenactments, renew this memory across generations (Durkheim, 1912; Connerton, 1989). By drawing large crowds, they turn private views and willingness to act into common knowledge, resolving mutual uncertainty. This observed mass participation reduces the expected punishment and lowers first-mover risk, making political action, from opposition voting to open protest, individually rational.

Studying how locations of past repression shape contemporary politics through public remembrance is challenging because exposure is typically endogenous to local political loyalties, confounding simple comparisons. We address this by leveraging the Khmer Rouge's pursuit of agrarian collectivism, which prioritized rice production and drove the forced relocation of civilians to labor camps in agriculturally productive regions. These locations, later known as the *Killing Fields*, became sites of mass death, where many were starved, overworked, or executed (Chandler, 2008; Kiernan, 2008).

To isolate how forced-labor repression transformed specific locations into sites of memory, we approximate the regime's labor allocation strategy using exogenous variation in rice productivity, which

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[1] Since the 2000s, Cambodia has consistently been classified as authoritarian or a closed anocracy by major ratings (Center for Systemic Peace, 2024; Economist Intelligence Unit, 2024) and ranks among the world's most corrupt countries (158 of 180) in Transparency International's 2024 Corruption Perceptions Index (Transparency International, 2024).

robustly predicts the intensity of state repression. We establish causality by exploiting local rainfall variation during the genocide that temporarily shifted rice yields. We show that this variation predicts both the Khmer Rouge's internal production targets, documented in party archives, and the concentration of deadly violence, as evidenced by geo-coded victim and mass-grave counts. Rainfall shocks relative to historical local averages provide variation uncorrelated with other contemporaneous drivers of political behavior. Consequently, our estimates capture the lasting effects of heightened repression, identifying locations where memories of state violence remain especially visible.

Having documented the spatial distribution of repression, we examine its lasting social and political consequences. Using detailed commune- and individual-level data from historical and contemporary sources, we first show that this exposure generates persistent social costs. In communes exposed to greater Khmer Rouge repression, residents report lower interpersonal trust and participate less in civic organizations. They are also more likely to perceive violence as a major societal threat despite comparable present-day victimization rates, evidence that the memory of state terror still erodes communal life.

At the same time, more heavily affected communes show greater political engagement and opposition to authoritarian rule. Residents are better informed about politics and express stronger support for democratic principles. These attitudes translate into electoral behavior: turnout is higher, and areas with greater historical repression consistently yield higher opposition vote shares in national and local elections between 2012 and 2017. In the 2013 national election, communes more exposed to repression exhibit a 5 percentage point higher opposition vote share, approximately 13 percent above the mean.

The political consequences of this exposure extend beyond beliefs and voting to the quality of local governance. Corruption is pervasive in Cambodia, particularly in the natural resource sector, where political patronage and bribery contribute to one of the world's highest deforestation rates. Local officials extract rents through highly discretionary land concessions for resource exploitation.[2] If historical exposure generates both sustained political engagement and greater scrutiny of local officials, we would expect lower rent extraction. In line with this logic, areas exposed to greater Khmer Rouge repression exhibit fewer land concessions and lower deforestation rates, consistent with political engagement constraining official rent-seeking.

We conduct several robustness tests to assess the reliability of our findings. Using U.S. Army topographic maps from the early 1970s covering all of Cambodia, we confirm that rainfall during the Khmer Rouge era is unrelated to key pre-genocide characteristics such as population density, geographic proximity, state infrastructure, and underlying productivity. Crucially, placebo checks show that our rainfall-based estimates for the genocide period are clear outliers compared to corresponding effects in the same critical months across all other years from 1951 to 2017. To address multiple hypothesis testing, we combine related outcomes into composite indices. We also rule out location-level compositional differences: pre-1975 population density, infrastructure, and agricultural productivity are balanced across communes with different repression exposure, while contemporary demographics, assets, market access, and migration patterns likewise show no systematic relationship with our exposure measure. These

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[2]Between 2001 and 2014, Cambodia's annual forest loss rate rose by 14.4%, the fastest increase worldwide (Global Forest Watch, 2026; NASA Earth Observatory, 2026). Both local and central government officials have facilitated land annexation and resource extraction through political patronage and land concessions (see, e.g., Le Billon, 2002; Global Witness, 2007; Un and So, 2011; Scurrah and Hirsch, 2015).

checks confirm that past repression, rather than historical sorting or current economic conditions, drives the political effects.

Why does the memory of violence remain so potent decades later? Our evidence so far, including higher social costs, increased political engagement, and constrained rent extraction in more heavily exposed communes, indicates that the memory of past violence remains publicly visible in these locations even under continued authoritarian rule. Supporting this interpretation, we find that harder-hit communes not only contain a greater number of documented mass graves but are also more likely to host genocide memorials and monuments. These sites, and the physical remains they often display, keep collective memory visible despite self-censorship and serve as focal points for mobilization.

But memorials alone cannot fully account for the effects we document: individual exposure reveals little about others' willingness to act, so mutual uncertainty and the first-mover risk it creates persist. Recurring public ceremonies solve this coordination problem when participants see others showing up, turning private memory into shared certainty that many will act. Cambodia's annual *Day of Anger* ceremonies exemplify such public rituals. Typically held at memorial sites nationwide each May, these outdoor events bring together survivors, community members, and schoolchildren to commemorate Khmer Rouge atrocities through speeches and reenactments. To isolate the effect of the ceremonies, we exploit exogenous variation in local rainfall during the *Day of Anger*, as rain discourages attendance and can disrupt the event. Our results show that rain-free *Days of Anger* in genocide-affected locations amplify the social and political consequences of past repression: social costs increase further, political engagement intensifies, and governance improves. Finally, we examine protest, which provides the sharpest test of coordination. As a high-risk collective action, it depends on the common knowledge that ceremonies create. Drawing on Khmer-language news reports from Radio Free Asia, we track reported local protests and document increased protest incidence following rain-free *Days of Anger*, particularly in communes with higher genocide exposure.[3]

Taken together, these findings show how public remembrance enables political change under autocracy. Mass graves and memorials keep past violence visible, while ceremonies turn private views into shared certainty that many will act. The resulting mobilization ranges from changed attitudes to opposition voting and, when crowds gather, open protest, alongside reduced corruption. We demonstrate that when regimes permit public remembrance, they inadvertently empower citizens to challenge entrenched power through shared memory decades after the original violence.

The dynamics we document illustrate a broader phenomenon: across autocracies, state-tolerated venues become coordination points. Research on "authoritarian commons" (Qiao, 2023) highlights how institutions as varied as churches in East Germany (Opp and Gern, 1993; Lohmann, 1994), universities (Cantoni et al., 2019; Kaur and Yuchtman, 2024), and homeowner associations in China, where property-management meetings became platforms for collective resistance (Qiao, 2024), provided spaces where

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[3]That rain-free *Days of Anger* predominantly affect historically repressed communes is difficult to reconcile with alternative explanations based solely on information diffusion or cultural transmission. If ceremonies mainly worked by spreading information, that information should reach attendees regardless of local history, implying similar responses in low-repression areas. If outcomes primarily reflected inherited norms, they should be less sensitive to short-run disruptions of a fixed-date public gathering. Instead, results depend on the interaction of past violence and current attendance, consistent with coordination rather than information or inheritance alone.

citizens could observe one another and mobilize.[4] We provide evidence that regimes seeking legitimacy through commemoration create authoritarian commons, converting collective memory into coordination that constrains rent-seeking under autocracy.[5] Moreover, while existing research on authoritarian commons primarily focuses on protest mobilization, Cambodia's memorial infrastructure sustains broader political engagement, from attitudes and voting to protests, with corresponding discipline on local officials and reduced resource extraction.

This disciplining effect aligns with findings from partial democratic openings. In Kenya, democratization reduced ethnic favoritism in public spending (Burgess et al., 2015), while in China, competitive local elections improved bureaucratic accountability despite one-party control at higher levels (Martinez-Bravo et al., 2022). Our results demonstrate a parallel disciplining mechanism operating through memorial sites and recurring ceremonies rather than electoral reforms.

We also extend work on the legacy of violence, particularly studies examining the role of remembrance. Greek municipalities with "martyr town" status, which publicly commemorate WWII Nazi massacres, reduced German car purchases during the 2009–2014 debt crisis (Fouka and Voth, 2023); Chinese counties commemorating anti-Qing uprisings through gazetteers and temples to martyrs show higher participation in both the 1911 Revolution and modern protests, indicating persistent effects of remembering violence against the autocrat (Miao et al., 2023); and Spanish municipalities closer to Civil War mass graves exhibit lower trust and retain more Francoist commemorative street names (Tur-Prats and Valencia Caicedo, 2025). Beyond remembrance, legacies persist via institutionalized repression, for example through Qing literary inquisitions that eroded social capital for centuries, reinforcing autocratic rule in China (Xue, 2021); intergenerational transmission, as descendants of deported Crimean Tatars are more politically engaged and less favorable toward Russia (Lupu and Peisakhin, 2017); cognitive dissonance, as those near former Nazi concentration camps maintain out-group intolerance to rationalize past atrocities (Homola et al., 2020); and material incentives, as beneficiaries of Holocaust expropriations around Treblinka exhibit greater support for anti-Semitic parties (Charnysh and Finkel, 2017).[6]

Distinct from these accounts, we locate the persistence channel within the contemporary autocratic state itself: regime-sponsored remembrance for legitimation periodically generates heightened salience of past violence, turning memory into coordinated political behavior. This mechanism aligns with Cantoni and Yuchtman's (2025) notion of historically contingent causal effects, where historical legacies be-

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[4]Additional examples include labor unions in Poland, whose workplace networks organized the Solidarity movement (Kubik, 1994), and social media in Russia and China, where citizens coordinate protests despite censorship (Enikolopov et al., 2020; Qin et al., 2024).

[5]By "seeking legitimacy through commemoration" we mean that autocratic regimes use official public remembrance to project authority and claim historical legitimacy. Such commemorations are double-edged: intended to display state power, they also create predictable venues and symbols that opponents can use for coordination; eliminating them would undercut the regime's own narrative (Pfaff and Yang, 2001). In Cambodia, the CPP presents itself as the guardian against renewed genocide, a strategy that requires maintaining the remembrance infrastructure that enables citizen coordination.

[6]Additional research examines persistence of violence through erosion of trust (Nunn and Wantchekon, 2011); colonial extraction weakening institutions (Lowes and Montero, 2021); destruction of social structures (Acemoglu et al., 2011); cultural transmission of prejudice (Voigtländer and Voth, 2012); political realignment following occupation and repression, whether toward extremism (Fontana et al., 2023; Cannella et al., 2024), regime opposition (Bautista et al., 2023), or lasting anti-Soviet sentiment (Rozenas et al., 2017; Rozenas and Zhukov, 2019); politically activated collective memory (Ochsner and Roesel, 2024); two-sided civil conflict that strengthens in-group cohesion (Bellows and Miguel, 2009; Blattman, 2009; Voors et al., 2012; Bauer et al., 2016), contrasting with the divisive effects of one-sided state repression; and demographic change, as Gaikwad et al. (2023) show that Cambodian communes with greater genocide exposure exhibit higher female political representation through shifts in gender norms following excess male mortality.

come politically consequential when later events activate them, in our case public ceremonies. Methodologically, we go beyond analyses that rely on single historical shocks to infer pathways. Instead, we use two quasi-experiments, one varying repression intensity and one varying institutionalized commemoration, to assess whether memorialization mediates long-run mobilization (Kwon and Roth, 2025).[7] Finally, in contrast to legacy studies in consolidated democracies or high-capacity autocracies that typically measure attitudinal or behavioral outcomes, we show that in a lower-capacity autocracy, publicly commemorated violence constrains policy even where state control remains incomplete, with fewer land concessions and less deforestation.

More broadly, our paper complements research on memory-based norms and salience (Bordalo et al., 2020), where the memory of repression is maintained by mass graves and memorials and made acutely salient by remembrance ceremonies. It also relates to evidence that shared collective experiences shape political attitudes and behavior (Clingingsmith et al., 2009; Madestam and Yanagizawa-Drott, 2011; Madestam et al., 2013; Depetris-Chauvin et al., 2020).

The next section provides background on the Khmer Rouge era and contemporary Cambodia and presents a public remembrance framework linking memory and ceremonies to political behavior under autocracy. Section 3 introduces our data, and Section 4 discusses the empirical strategy. Section 5 reports results on social costs, political engagement, and governance. Section 6 examines the public remembrance mechanism, Section 7 considers alternative explanations, and Section 8 concludes.

2 Background

In April 1975, the Khmer Rouge seized control of Cambodia, ending a five-year civil war in which the U.S. had supported the previous regime, primarily through heavy bombing of the country.[8] During the four years that followed, between 1.7 and 3 million people (more than 20% of the population) died. The period ended when Vietnam invaded Cambodia and defeated the Khmer Rouge in early 1979 (Kiernan, 2008).[9] To contextualize how the legacy of this violence persists today, the remainder of this section provides historical and contemporary context, documents Cambodia's memorial landscape, and introduces a public remembrance framework that links memory and ceremonies to political behavior under authoritarian rule.

2.1 Life Under the Khmer Rouge

After seizing power, the Khmer Rouge established an agrarian socialist system, collectivizing the economy and abolishing money, markets, and private property (Chandler, 2008). The regime aimed to rapidly develop the country through successive four-year plans that prioritized boosting rice production to generate a surplus that could finance industrialization (Chandler et al., 1988; Twining, 1988). Internal party documents reveal a fixation with increasing rice productivity as the key to transforming the economy, with party cadres repeatedly emphasizing the goal of raising rice production to "*three tons per hectare*",

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[7]Kwon and Roth (2025) emphasize explicitly testing mediating mechanisms rather than inferring them ex post.

[8]The U.S. bombing of Cambodia from 1965–1973, which totaled 2.7 million tons of ordnance, more than the Allies unloaded in all of World War II, was a significant factor in the Khmer Rouge's rise to power (Owen and Kiernan, 2006; Chandler, 2008).

[9]Estimates of the death toll during the Khmer Rouge regime vary, with Kiernan (2008) suggesting a national toll of 1.67–1.87 million and other estimates reaching as high as 3 million (see discussion in Heuveline, 1998).

triple the pre-1975 average (Chandler et al., 1988). To achieve this, the Khmer Rouge immediately displaced large portions of the population and forced them to live and work in labor camps across the country, ranging in size from several villages to entire communes.[10]

To meet labor and production targets, the Khmer Rouge established a hierarchical military command to govern the camps (Heder and Tittemore, 2004). Each province, district, and commune had committees overseeing political, security, and economic affairs. Party archives reveal that provincial committees were responsible for organizing production, prioritizing locations with higher productivity: "*attack wherever [we are] strongest*" (Chandler et al., 1988, p. 20). To accomplish this, the committees mobilized work brigades (*kong chalat*) for specific projects such as rice field harvesting, deploying them as needed within the province (Rice and Tyner, 2017; Tyner, 2017a).

Life in the camps was fully controlled by the Khmer Rouge, who oversaw mandatory "livelihood meetings" designed to indoctrinate residents in communist ideology and encourage them to confess political and ideological sins, as well as inform on other camp members. Those who expressed the wrong ideas or were accused of differing opinions faced execution (Chandler, 1988; Thion, 1993). The regime created a pervasive system of rewards for informing on neighbors, friends, and family members, further eroding trust within the community (Yimsut, 2011; Bennett, 2015).[11]

Despite the extensive planning, rice production remained low because Khmer Rouge cadres lacked farming experience and familiarity with local conditions (Vickery, 1999; Ledgerwood and Vijghen, 2002). Unsuccessful harvests led to further purges, not only of laborers but also of local Khmer Rouge cadres who did not meet production targets. By the end of 1978, the explosion of violence had completely upended collectivized agriculture across Cambodia (Hiebert, 2017). With the Khmer Rouge defeated in early 1979, displaced people began to return to their pre-1975 villages (Desbarats, 1995; Kiernan, 2008). Left in the rice fields were the remains of those who had been executed or died of starvation and overwork (Chandler, 1988; Kiernan, 2008).

2.2 Contemporary Cambodia

Cambodia has held multiparty elections since 1993, but the Cambodian People's Party (CPP) has won all but one election during this time. Hun Sen led the government from 1985 until 2023, making him one of Asia's longest-serving prime ministers (Baaz and Lilja, 2014; Strangio, 2014; Norén-Nilsson, 2016b). Following the 2023 general election, he handed the premiership to his son, Hun Manet, while remaining president of the CPP (Reuters, 2023b,d).[12]

Despite annual economic growth of over 7% since the mid-1990s and the regime claiming to guarantee peace and stability, Cambodia ranks among the world's most corrupt countries (Transparency International, 2024; World Bank, 2026), with political patronage controlling business, military, and state affairs (Un, 2015; Norén-Nilsson, 2016b). This is particularly evident in the natural resource sector, which has

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[10]Supporters of the old regime, former state officials, Khmer Rouge dissidents, and the educated were labeled "new people", while farmers who had lived in the insurgency areas made up the "base." Although the base were initially treated slightly better, both groups were forced to work in the camps (Twining, 1988; Kiernan, 2008; Tyner, 2017a).

[11]The Khmer Rouge were notorious for their extensive monitoring, with some observers describing their surveillance as having the "eyes of a pineapple" that saw in all directions and left no escape (Marston, 1997).

[12]While Sen has been credited as the engineer of the military offensives and political deals that eventually led to the breakup of the Khmer Rouge in the mid-1990s, he was initially part of the Khmer Rouge before defecting to Vietnam during the internal purges in 1977 (Strangio, 2014; Giry, 2015).

one of the highest deforestation rates globally due to corruption and bribery.[13] Moreover, key elements of democracy such as civil liberties, a free press, and the rule of law have been repeatedly compromised since the introduction of multiparty elections, with dissenting voices harassed, intimidated, and jailed (Norén-Nilsson, 2016b; Human Rights Watch, 2021; Amnesty International, 2026).

In response to Hun Sen's authoritarian rule, the two largest opposition parties formed an alliance in 2012, creating the Cambodia National Rescue Party (CNRP). While the CPP and CNRP shared many policy elements, the CNRP prioritized anti-corruption and legal reform more strongly than the CPP (Norén-Nilsson, 2016a). After the CNRP's near-victory in the 2013 election, it faced increasing repression from the government and was dissolved by Cambodia's Supreme Court in November 2017, paving the way for the CPP to win all 125 seats in the National Assembly in July 2018.[14] In subsequent elections, the CPP maintained its dominance: in June 2022 it won roughly 80% of commune council seats nationwide (Reuters, 2022) and in July 2023, after the main opposition Candlelight Party was disqualified, it secured 120 of 125 National Assembly seats (Reuters, 2023a).[15]

2.3   Mass Graves, Memorials, and Public Ceremonies

Mass graves from the Khmer Rouge era continue to shape Cambodia's political landscape (see Figure 1a). After 1979, human remains were collected and enshrined in memorial *stupas* (Buddhist shrines) at many of the more than 300 known grave sites spread across the country. These memorials, ranging from simple wooden shelters housing skulls to purpose-built concrete shrines with visible remains, stand in village centers, schools, and pagodas (Bennett, 2015; Jarvis, 2015; Fleischman, 2017). Beyond the formal structures, the mass graves themselves are often visible as depressions or mounds in the fields, where human bones and clothing sometimes surface during the rainy season. Hun Sen has insisted that "*the remains of those killed during Democratic Kampuchea will not be cremated because they remain the only evidence of the Khmer Rouge regime*" (Bennett, 2015, p. 224). Each May 20th, these sites host the state-sanctioned "Day of Remembrance", also known as "Day of Anger", when monks lead prayers, survivors give testimonies, and students perform dramatic reenactments of Khmer Rouge atrocities, often before crowds of hundreds or even thousands (Guillou, 2013; Bennett, 2015; Fleischman, 2017). The CPP first used these sites in the 1980s to legitimize its rule, "*put[ting] the dead to work in the name of the newly constructed state*" (Bennett, 2015, p. 213). More recently, both the CPP and the opposition have used them for political meetings during election campaigns (Bennett, 2015; Tyner, 2017b). (Section 6 provides additional detail.)

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[13]Between 2001 and 2014, Cambodia's annual forest loss rate increased by 14.4%, making it the fastest acceleration of tree-cover loss in the world (Global Forest Watch, 2026; NASA Earth Observatory, 2026). Local authorities, together with central government officials, have been instrumental in the annexation and seizure of land subsequently made available for resource extraction (see, e.g., Le Billon, 2002; Global Witness, 2007; Un and So, 2011; Scurrah and Hirsch, 2015).

[14]CNRP leaders Sam Rainsy and Kem Sokha were charged with "defamation" and "treason" in 2015 and 2017, respectively, and were subsequently banned from holding public office. Rainsy remains in exile in France and, in October 2022, was sentenced in absentia to life imprisonment and stripped of political rights. Sokha was convicted of treason on March 3, 2023 and sentenced to 27 years of house arrest (see e.g., Associated Press, 2022; Reuters, 2023c; Human Rights Watch, 2025).

[15]For context, Human Rights Watch reports that in 2022 the CPP secured over 99% of commune chief posts despite the Candlelight Party receiving about 22% of the popular vote (Human Rights Watch, 2022).

2.4 Legacies of State Violence

How does the memory of mass violence shape political and social life decades later? Fear of renewed repression and trauma may lead citizens to avoid activities where dissent might be monitored, while memories of coercion and widespread suspicion erode interpersonal trust (Kuran, 1995; Davenport, 2007), with mistrust persisting across generations (Nunn and Wantchekon, 2011).[16]

Yet these same memories can strengthen support for pluralism and political competition (Balcells, 2012; Lupu and Peisakhin, 2017). When citizens attribute past brutality to unchecked authority, they revise their beliefs toward dispersed power and tighter oversight as insurance against renewed abuse (Overbye, 1996). This can increase the willingness to hold incumbents to account (Wood, 2003; Blattman, 2009; Rozenas and Zhukov, 2019), especially when coordination is feasible (Bellows and Miguel, 2009; Voors et al., 2012; Bauer et al., 2016).[17]

2.5 Public Remembrance

In autocratic settings, however, such preferences often remain private and politically dormant. Public remembrance, through memorial sites and commemorative ceremonies, can relax these barriers and channel latent opposition into collective action. Central to this process is collective memory, the shared interpretation of past events, which persists through family transmission, education, and public commemorations (Halbwachs, 1992).[18] Under authoritarian rule, its political force is typically muted: states suppress discussion while individuals conceal dissenting views.

Self-Censorship Two obstacles are especially pervasive. First, self-censorship occurs when fear of punishment leads individuals to misrepresent their preferences; Kuran (1995) calls this "preference falsification". Similarly, Scott (1990) distinguishes between the "public transcript" (observable compliance with regime expectations) and the "hidden transcript" (private expression of dissent). When individuals conceal anti-regime sentiments, their public silence reinforces perceptions that opposition is minimal, collectively sustaining "*a system that many found abominable*" (Kuran, 1995, p.124).[19]

Mutual Uncertainty Second, self-censorship generates mutual uncertainty about the true distribution of political preferences. Building on the insight that coordination failures result from uncertainty about others' beliefs (Schelling, 1960), Chwe (2001) emphasizes how public rituals solve coordination problems by creating common knowledge: "*each individual wants to participate only if others do [...] what is also required is knowledge of others' knowledge*" (Chwe, 2001, p.3). Without information about how many others share their views and, crucially, how many are willing to act, citizens remain in a low-participation equilibrium. Recent experimental work confirms this logic: recalibrating beliefs

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[16]Past violence can also generate persistent distrust through strategic complementarities: low-trust expectations become self-confirming and sustain low-cooperation equilibria (Rohner et al., 2013).

[17]A complementary mechanism is the revolutionary-threat model, in which repression heightens the credibility of revolt, inducing elites to concede broader political competition (Acemoglu and Robinson, 2001, 2006).

[18]Work on collective memory emphasizes its social character, transmitted across generations through frameworks such as rituals, monuments, and oral traditions (Halbwachs, 1992; Assmann, 2011; Olick and Robbins, 1998).

[19]Self-censorship has also been interpreted as fear of social isolation (Noelle-Neumann, 1974) or a rational response to regimes raising the cost of dissent (Hirschman, 1970). Lohmann (1994) demonstrates how preference falsification can create informational cascades that suddenly unravel when conditions change (e.g., visible defections by high-status individuals, information leaks, external shocks, or coordination moments).

about peers' willingness to protest increased intended participation in Hong Kong (Cantoni et al., 2019), while correcting Saudi men's beliefs about others' support for women's employment increased wives' job-seeking (Bursztyn et al., 2020). Public remembrance provides a mechanism to solve this problem, offering physical spaces and scheduled events where preferences become observable and coordination becomes feasible.

Mechanisms of Public Remembrance   Public remembrance addresses both barriers to mobilization through two complementary channels.

Memorial sites. Mass graves and other physical memorials, or *lieux de mémoire* ("sites of memory" Nora, 1989), reduce self-censorship by preserving collective memory in forms less likely to be censored than oral accounts or education, since visible landmarks are harder to remove or alter. Assmann (2011) notes that monuments transmit information passively through physical presence rather than active communication. This passive transmission sidesteps preference falsification (Kuran, 1995) by allowing individuals to remain aware of past repression without openly expressing dissent. In Cambodia, memorial sites including mass graves, stupas, and museums keep Khmer Rouge violence in public view and anchor collective memory to these locations. As a result, that memory remains visible even when open discussion is suppressed.

Commemorative ceremonies. While memorial sites preserve visibility, resolving mutual uncertainty requires gatherings where participation is simultaneous and observable. Commemorative ceremonies achieve this by combining heightened salience, a sharp increase in attention to past violence, with visible crowds. Salience theory predicts that memories become more accessible when the current context resembles the encoded experience, increasing their weight in decision-making (Bordalo et al., 2020). Ceremonies at mass grave sites make Khmer Rouge memories acutely salient through the "*depictive representation of past events*" (Connerton, 1989, p.72). At the same time, the visible crowd creates mutual awareness that opposition is widely shared (Durkheim, 1912).[20] This shared awareness generates common knowledge in Chwe's (2001) sense, where participants see that many hold the same views and know others see this too. Crowd size becomes information, signaling lower expected punishment. By collapsing uncertainty and reducing first-mover risk, ceremonies solve the coordination problem: communities shift from low-participation equilibria to outcomes where opposition voting and protest are individually rational.[21] In Cambodia, the annual Day of Anger ceremonies provide one of the few legal venues for mass assembly under CPP rule, where attendance reveals widespread concern. Although the CPP sponsors the ritual to claim credit for ending Khmer Rouge rule, state sanction does not imply control over how citizens interpret it. The ceremonies depict the consequences of unchecked authority through survivor testimonies and reenactments of violence, content that reinforces demands for accountability rather than deference.[22] The regime supplies the focal point for assembly but cannot fully determine how it is politically repurposed.

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[20]The heightened salience may also raise perceived risk and reduce everyday association.

[21]Public ceremonies facilitate mutual awareness through two additional features: ritual participation temporarily suspends normal social hierarchies, enabling cross-class collective action (Turner, 1985), while state-sanctioned venues allow citizens to reveal preferences without the risks associated with direct political opposition (Etzioni, 2000).

[22]Consistent with this, repression exposure strengthens support for pluralism and opposition, not for strong-leader preferences (Section 5.2).

Empirical Implications We focus on three empirical patterns that the public remembrance framework (summarized in Figure 2) helps organize and distinguish:

Implication 1. (*memorial sites alone*): If locations of past repression maintain place-anchored collective memory through visible reminders, we should observe persistent differences in social costs, political engagement, and governance even without ceremonies, and visible markers of remembrance should be more prevalent where repression was concentrated (dashed arrows). This memory channel operates continuously and does not itself require coordination or public gathering.

Implication 2. (*ceremonies alone*): If ceremonies function independently of place-anchored memory through information, emotional arousal, or immediate coordination, they should produce comparable effects wherever they are held (dotted arrows). Null effects in lower-repression areas would suggest that ceremonies require pre-existing memory to operate.

Implication 3. (*memory×ceremonies*): If collective action requires both memory and public coordination, protests and amplified political effects should appear when ceremonies occur at locations with place-anchored memory (solid arrows). The ritual makes this memory acutely salient, creates common knowledge through observable participation, and enables high-risk collective actions that neither memorial sites nor ceremonies could produce alone.

Two alternative mechanisms provide useful counterfactuals. If ceremonies worked mainly by diffusing information or narratives about past atrocities (a channel already nested within Implication 2), they should shift attitudes and behavior wherever they occur, including in lower-repression communes. If political dispositions were transmitted primarily within families (see, e.g., Bisin and Verdier, 2001; Tabellini, 2008; Giuliano and Nunn, 2021), they should be portable across locations and not depend on local memorial sites or annual gatherings. Neither pattern would match the location-bound, ceremony-contingent effects implied by public remembrance. Information diffusion and cultural transmission may nonetheless reinforce place-anchored memory, and ceremonies may combine factual updates with coordination. We do not attempt to isolate these channels. Instead, our aim is to establish whether the interaction of memorial sites and ceremonies shapes political outcomes and to estimate the extent to which this mechanism turns private views into collective action under authoritarian rule.

3 Data

We extract information from several sources to collect data on violence, voting outcomes, political beliefs, civic participation, protest activity, community and individual characteristics before and after the genocide, land concession policy and resource extraction, and rainfall. The following subsections present these sources and describe how they are used.

Violence Data We obtain information on the magnitude and dispersion of deadly violence using data from the Cambodian Genocide Database held at Yale University (Cambodian Genocide Program, 2026a). These data comprise 309 geo-coded locations with 18,953 mass graves containing 974,734 bodies, which we aggregate by commune to identify localities that were targeted by the Khmer Rouge (see Figure 1a). To capture violence in the post-Khmer Rouge period, we measure local variation in violent incidents using three geo-coded international event-based datasets aggregated by commune: the

Armed Conflict Location and Event Data Project (ACLED, Raleigh et al., 2010), the Global Database on Events, Location, and Tone (GDELT, Leetaru and Schrodt, 2010), and the Uppsala Conflict Data Program (UCDP, Sundberg and Melander, 2013).

Election Data   Our voting outcomes include results from the national election in 2013 and the communal (local) elections in 2012 and 2017. The national election data were obtained from Open Development Cambodia (Open Development Cambodia, 2013). Information on the communal elections was digitized and translated from the official website of the National Election Committee (National Election Committee of Cambodia, 2017).[23] We have election data for the entire country at the commune level.

Political Beliefs and Civic Participation   To study whether state repression affects citizens' views on democratic principles and engagement in civil society, we use two rounds of the nationally representative Asia Foundation Election Survey (Asia Foundation, 2014). The interviews were conducted in 2003 and 2014 and include information on public sentiments and sociodemographic variables. We group survey questions into five outcome categories organized into two families. Social costs are captured by indices of interpersonal trust, civic participation, and perceived violence as a societal threat. Political engagement is measured by support for pluralism and voter informedness.[24] Following Anderson (2008), we standardize questions within each category and sum the standardized outcomes, weighting by the inverse of the covariance matrix.[25] The five indices address concerns of multiple hypothesis testing and aggregate changes in preferences that individual questions only measure imperfectly. We also report one composite index for each outcome family by combining the relevant category indices.[26]

Protest Data   We measure protest activity using Khmer-language news reports from Radio Free Asia (RFA). RFA is a private non-profit broadcaster whose Khmer-language service, editorially independent of the Cambodian government, covers civic action often censored by state media (see Qin et al., 2024, for a similar approach in China). We scraped over 1,500 articles published between 2008 and 2018 and classified an article as protest-related if its URL contains the word "protest," yielding 332 articles. We then trained an algorithm on the headlines and lead paragraphs of this set to classify the remaining articles, achieving 91 percent accuracy in a held-out sample and identifying an additional 209 protest-related articles. Using the URL-based classification, we construct two commune-level measures of protest activity in the four weeks following the annual *Day of Anger* (excluding May 20): (i) an indicator for whether any protest is reported, and (ii) the share of protest-related articles among all RFA articles assigned to the commune during this period. Where the article text identifies protesters' commune of origin, we link each report to that commune rather than to the protest site, allowing us to measure local

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[23]Since the opposition alliance, CNRP, was formed after the 2012 elections, we combine the votes of the parties later included in the CNRP (the "Sam Rainsy Party" and "Human Rights Party") in the 2012 commune elections to match the alliance appearing in 2013 and 2017. As the CNRP was dissolved by Cambodia's Supreme Court in November 2017 and subsequent elections lacked continuity and competitiveness, we focus on the 2012–2017 elections, the last cycle in which the CNRP was permitted to run.

[24]We exclude generic inquiries like "How interested are you in politics?" because they capture general interest, applicable to both regime supporters and opponents, and are therefore difficult to interpret under authoritarian rule. See Appendix D for the complete list of questions and Appendix Table A-8 for summary statistics.

[25]By considering the covariance between individual questions, we obtain a more accurate measure than methods employing an equally weighted average. We present standardized scores for all main outcome categories, except for our election results.

[26]Similar to Cantoni et al. (2017), we present results for individual questions with estimated p-values and false discovery rate-adjusted p-values in Appendix Table A-8, computed using the Anderson (2008) procedure.

mobilization rather than where protests take place. In Appendix C, we report robustness checks using an expanded classification based on the text classifier.

Pre-Genocide Demographic Data   To capture pre-genocide demographics, we digitize U.S. Army topographic maps (Series L7016, 1970–1973), covering all of Cambodia at a scale of 1:50,000 (U.S. Army Map Service, 1973). The topographic maps were derived from early satellite imagery used during the American bombing campaign and contain comprehensive commune information on population density (residential buildings), state infrastructure (such as commune offices, post offices, and schools), and agricultural productivity.[27] We measure pre-Khmer Rouge productivity by determining each commune's area covered by forests, rice fields, or inundation, and supplement this with FAO's Global Agro-Ecological Zones database for potential crop yields (FAO, 2026). We also include information on the location and quantity of 113,716 bombings during the 1965–1973 U.S. bombing campaign (Cambodian Genocide Program, 2026b).

Post-Genocide Demographic Data   To capture post-genocide demographics, we use the 1996–2016 Cambodia Socio-Economic Survey (CSES), which contains demographic indicators for up to 400,000 individuals from 14 nationally representative survey rounds. These individual-level data allow us to address alternative hypotheses based on population, age, education, gender, assets, consumption, and migration. From the associated village survey, we extract commune-level variables on state investment and public infrastructure. The data on infrastructure are supplemented with information on market access from Open Development Cambodia from 2012 (Open Development Cambodia, 2012). To measure human capital investments, we include variables on classes, teachers, students, and parents from the school census available for the period 1997–2002. We obtain population statistics from the 1962, 1998, and 2008 censuses to complement the CSES data. Finally, we use nighttime luminosity for 1992–2013, available from the National Centers for Environmental Information at the National Oceanic and Atmospheric Administration (NCEI-NOAA), to capture local economic activity (NOAA, 2013).

Land Concessions and Resource Extraction Data   We obtain geocoded data on economic land concessions granted by the Cambodian government between 2001 and 2015 from the Cambodian League for the Promotion and Defense of Human Rights (LICADHO) (LICADHO, 2015), data from the Hansen et al. (2013) satellite-derived deforestation rate measure for the years 2000–2018, and village-level data on illegal logging and resource overuse from CSES. These indicators, aggregated at the commune level, allow us to investigate the link between past repression and local governance quality, specifically official rent-seeking and resource extraction.

Rainfall Data   Historical rainfall data are obtained from the APHRODITE Water Resources project at 0.25-degree resolution covering the period 1951–2007 together with data from NOAA Climate Prediction Center for the years 2002–2017, allowing us to construct a long panel of rainfall in Cambodia (APHRODITE, 2007; NOAA, 2017). The daily rainfall data are aggregated by commune.

Summary statistics for the main outcomes, rainfall, and other variables are provided in Appendix Tables A-1–A-3 and A-8.

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[27]Figure A-2a contrasts a map and a pre-Khmer Rouge satellite image, illustrating the level of detail. With the ability to display features as small as a single home, these maps accurately represent the natural and human-made demographics of that time.

4 Empirical Strategy

Identifying how state repression affects political outcomes, and whether public remembrance shapes these effects, requires that variation in repression be uncorrelated with other determinants of political beliefs and behavior. The Khmer Rouge may have targeted urban and economically developed areas with a more pluralistic outlook, potentially confounding a correlational analysis (in fact, Figure 3 shows a positive relation between pre-Khmer Rouge population density, Killing Fields victims, and support for the opposition CNRP).

Our empirical strategy addresses this problem by leveraging the regime's desire to establish an agrarian collectivist society. We present individual accounts of people forcibly relocated to more productive regions and demonstrate that these labor movements were part of the Khmer Rouge's strategy for boosting rice production, eventually leading to increased repression and political violence in the receiving areas. We approximate the regime's labor allocation rule using exogenous variation in rice productivity and show that it consistently predicts the intensity of state repression. The locations where this exposure was concentrated became the sites of memory that persist today. Having established where repression was concentrated, we can then study whether the remembrance infrastructure at these locations, memorial sites and public ceremonies, mediates the political legacy of that exposure.

4.1 Khmer Rouge Production Plans and Forced Relocation

In an effort to create a self-sufficient agrarian socialist society, the Khmer Rouge immediately began reallocating people across Cambodia to increase rice production. Survivor accounts describe how individuals were relocated and organized into large labor brigades to meet production targets. These movements often occurred during the harvest season, typically between December and March, to bring in the crop. The Documentation Center of Cambodia (DC-Cam) houses personal testimonies on life in the labor camps, including the coercive work assignments.[28] For example, Son Laut, a farmer in the Sann Kor commune in central Cambodia, was assigned to work in a female mobile unit by the local Khmer Rouge cadre in 1975. She recounts: "*If we could not complete the assigned task, we would be punished. Half of our body would be buried in the earth. [...] I had to build a hundred meters of rice dikes per day. After that, they sent me to harvest rice at Chong Dak, located in Koh Commune*" (DC-Cam, 2026). Mobile units even included children; in 1976, eight-year-old Tai Sé was selected to join the special children's unit: "*During the harvesting period [the Khmer Rouge] sent the young pioneer unit to Chamkar Leur, where they remained until 1978*" (DC-Cam, 2026). People not only assisted with the harvest but also with subsequent production. Chhuon Sopheak, who lived in the Battambang Province in northwestern Cambodia, recalls: "*[They] often transferred me to work in other villages after harvesting time. I carried both paddy and husked rice from the mill to the granary*" (DC-Cam, 2026).

Kiernan's (2008) account of life under Pol Pot, based in part on survivor interviews, echoes these experiences. He characterizes the country as a "*gigantic workshop of indentured agrarian labor*" (Kiernan, 2008, p. 164), with many people being relocated at the end of the year: "*Hong Var and her two daughters, Somaly, seven, and Panita, three, were sent from Takeo to Region 5's Phnom Srok district*

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[28]The center holds the world's largest archive on the Khmer Rouge period with more than 155,000 documents and 6,000 photographs.

in December. They lived there for four months until rice supplies ran low" (Kiernan, 2008, p. 226). Similarly, in January 1976, "*Van [a mechanic] was finally sent to the nearby Region 5 Worksite to bring in the harvest, then dig irrigation works*" (Kiernan, 2008, p. 229). Early in the regime, these movements were systematically organized: "*Savy, working near Sisophon at the end of 1976, saw the first contingent arrive. Trains brought in over two thousand Southwest Zone people to Region 5 alone. They came in whole families, even bringing their parents*" (Kiernan, 2008, p. 237).

A common theme in the testimonies is that people were relocated around harvest time to areas with favorable rice harvests. Sisophon, Chong Dak, and Chamkar Leur, all mentioned in the accounts above, were relatively more productive than neighboring areas during the genocide. Confidential Khmer Rouge leadership documents from 1976, unpublished until Chandler et al. (1988), confirm this focus, outlining the party's Four-Year Plan for rice production increases across Cambodia. The plan instructed provincial committees to meet production targets by concentrating on high-productivity communes. Achieving these targets explicitly required employing additional labor, as failure was attributed to "*a lack of forces*" (Chandler et al., 1988, p. 15).[29]

We illustrate the Khmer Rouge's goal of reallocating people to higher-productivity locations by plotting the relationship between predicted rice productivity and the regime's production targets.[30] As this productivity is associated with less wet-season rain (a claim we substantiate in Section 4.2), Figure 4a shows that areas predicted to be more productive were assigned higher quotas in the Khmer Rouge documents.

The rice fields ultimately turned into killing fields due to inhumane working conditions, production failures, and political terror. Long work hours and high production quotas, coupled with insufficient food rations, led to widespread exhaustion and death (Tyner, 2017a). Despite extensive planning, the Khmer Rouge's efforts to increase rice production were hampered by cadres' lack of farming experience and unfamiliarity with local conditions (Vickery, 1999; Ledgerwood and Vijghen, 2002). Unsuccessful harvests prompted further purges in the labor camps, targeting not only laborers but also local Khmer Rouge cadres who failed to meet production goals. By late 1978, the surge of violence had completely disrupted Cambodia's collectivized agriculture (Hiebert, 2017).

4.2 Rice Production and State Repression

This section constructs a rainfall-based proxy for where the Khmer Rouge concentrated forced labor, which in turn shaped local exposure to state repression.

Wet-season rainfall is a key determinant of rice yields in Cambodia. Excessive rain between September and mid-November floods fields, damages plants, and reduces yields (Javier, 1997; Nesbitt, 1997b).[31] Lower wet-season rainfall therefore predicts higher rice productivity.

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[29]Chandler et al. (1988) notes that the unpublished text on agricultural production targets is "*one of the most revealing documents from the DK [Democratic Kampuchea] era*" (Chandler et al., 1988, p. 36). See Figure A-1 for national targets.

[30]To estimate the relationship between predicted and actual rice production in 1975/1976, we use information on targeted additional production for 1977. Since the explicit goal was to attain higher yields in locations that were especially productive, areas targeted for increased productivity in 1977 serve as a suitable proxy for rice production during the prior 1976 season.

[31]As Nesbitt (1997b) explains: "*Heavy rains in September and October are essential...[but] too much rain causes flooding...The wet season in Cambodia generally stops abruptly sometime in November...Rice matures at different times over the next few months and is harvested by hand*" (Nesbitt, 1997b, p. 16).

For each commune c, we compute average wet-season rainfall over 1975–1977 and standardize it using the commune's historical distribution (1951–2017), yielding z_c^{KR}.[32] Lower values of z_c^{KR} indicate lower rainfall and thus higher expected productivity.

As described in Section 4.1, provincial committees organized production within their jurisdiction, prioritizing relatively more productive communes. To meet production targets, they deployed work brigades to areas where productivity was highest, following Pol Pot's directive to "*attack wherever [we are] strongest*" (Chandler et al., 1988, p. 20). These communes received, at the margin, more laborers and consequently greater exposure to state repression. We approximate this selection process by identifying communes with above-average productivity relative to their province. Let z_p^{KR} denote the average of z_c^{KR} across communes within province p in 1975–1977. We define exposure to state repression as:

$$\text{State Repression}_c = \mathbb{I}\left[z_c^{KR} \leq z_p^{KR}\right], \tag{1}$$

where the indicator equals one if the commune's standardized wet-season rainfall (averaged over 1975–1977) was below the provincial average, identifying areas with above-average productivity.[33] Section 4.5 details the assumptions required to interpret this productivity shock as a proxy for state repression.

Our indicator predicts higher production targets in Khmer Rouge planning documents and higher rice yields in modern data. Figure 4a shows that areas predicted to be more productive were assigned higher quotas in the regime's confidential files.[34] Figure 4b confirms the association between wet-season rainfall and rice yields today, and Appendix Table A-5 shows that communes classified as productive under (1) have higher rice yields (about 6% of a standard deviation). Taken together, these patterns suggest that wet-season rainfall had a comparable relationship with rice productivity during the Khmer Rouge period as observed today, supporting the premise that the regime concentrated labor in relatively more productive areas.[35] Appendix Section A.1 provides additional details on rainfall aggregation and shows robustness to alternative productivity definitions.

4.3 State Repression and Deadly Violence

We use equation (1) to identify higher-repression communes and examine whether deadly violence was greater in these areas. Figure 1b maps the resulting pattern across provinces, with darker shading denoting communes classified as having higher predicted repression. We quantify this relationship by estimating:

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[32]Rainfall is averaged over 1975–1977 because the timing of labor movements and killings is not observed at a finer temporal resolution. The window starts in 1975, as earlier rain shocks have limited predictive power for yields in that period, and ends in 1977, as violence had largely disrupted collectivized agriculture by 1978 (Hiebert, 2017).

[33]The measure relies on the three-year average; it does not require rainfall to be below the provincial average in each individual year. The provincial average z_p^{KR} is constructed from commune-level standardized values. In the baseline, we net out geographic trends by regressing z_c^{KR} on province fixed effects and a second-order polynomial in commune latitude and longitude, and use the fitted province component as z_p^{KR}. Results are similar if we instead use the simple province mean. Controlling for province-level rainfall is akin to accounting for non-random exposure to exogenous rainfall shocks as in Borusyak and Hull (2023).

[34]As production targets in the leadership documents are reported at the zone/region level (Chandler et al., 1988), we aggregate to the provincial level and calculate the spatial overlap between provinces and the reported zones/regions.

[35]The resemblance between present-day yields and those recorded under the Khmer Rouge can be attributed to the fact that farming practices have largely remained unchanged since the 1970s. Consequently, rice productivity in Cambodia is currently the lowest in Asia (Javier, 1997; FAO, 2002). Furthermore, the production shocks observed between 1996 and 2016 are similar in magnitude to those experienced during the Khmer Rouge period.

$$Violence_c = \delta State\ Repression_c + \Gamma'_c + X'_c + \gamma_p + \varepsilon_c, \tag{2}$$

where $Violence_c$ is a measure of deadly violence in commune c, $State\ Repression_c$ is defined in equation (1), Γ'_c is a second-order polynomial in latitude and longitude to compare similarly situated communes, X'_c is a vector of predetermined commune characteristics, and γ_p represents province fixed effects. Standard errors are clustered at the province level and corrected for spatial dependence. If equation (1) captures the regime's labor allocation mechanism, we expect $\delta > 0$: more productive communes received larger forced-labor deployments, and the accompanying overwork, deprivation, and heightened surveillance generated more killing.[36]

Table 1 reports estimates from specification (2), demonstrating that our measure of state repression consistently predicts a rise in deadly violence. The coefficients are similar with and without predetermined commune controls, statistically significant (at the 1% level), and quantitatively meaningful. In communes experiencing relatively higher state repression, 389 additional bodies (with a mean of 408) and 8 more mass graves (with a mean of 7) were uncovered, and there is a 63% higher probability of having a genocide memorial commemorating those who perished in the Killing Fields. To address concerns related to multiple hypothesis testing and to capture the broader average effect, we follow Anderson (2008), standardize each violence measure, and sum the standardized outcomes, weighting each measure by the inverse of the covariance matrix of the standardized outcomes. The standardized effect across all outcomes indicates that deadly violence increased by 0.135 standard deviations. Because documented bodies and mass graves capture only the physical remains of repression, this estimate likely understates the full difference in exposure between higher- and lower-repression communes. The broader treatment includes nonfatal camp conditions, surveillance, and the memorial infrastructure that formed around sites of mass death.

We validate our identification strategy by demonstrating that our measure of state repression is uncorrelated with key pre-genocide characteristics, is an outlier in the placebo distribution of rainfall shocks from 1951 to 2017, and that analogous rainfall-based measures constructed from adjacent time windows do not predict Khmer Rouge-era violence. First, we examine whether communes predicted to experience less state repression serve as valid counterfactuals for those expected to face more repression, using our pre-genocide commune-level characteristics. If the strategy is valid, there should be no correlation between the variation in repression and other pre-genocide determinants of later political outcomes. Table 2, columns 5–8, indicates that all pre-1975 commune characteristics, such as state infrastructure, population density, geographic proximity, and underlying productivity, are uncorrelated with state repression, lending credibility to our identification strategy.

Second, we conduct a series of placebo tests using wet-season rainfall from alternative three-year periods. These placebos are drawn from the same spatially correlated distribution as rainfall during the wet seasons of 1975–1977. If wet-season rainfall in the Khmer Rouge era has a causal effect, then rainfall in any other period should be uncorrelated with our measure of state repression, except by chance. To test this, we employ two complementary procedures. First, we rerun each regression for

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[36]While it may seem counterintuitive to kill laborers, the camps served the dual purpose of increasing production and promoting the Khmer Rouge ideology, either by changing beliefs or by eliminating dissidents. When the unrealistic production targets were not met, the political agenda became the regime's primary concern, and violence intensified (see Section 2 for details).

the outcomes shown in Table 1, replacing the repression indicator from the Khmer Rouge period with a dummy for all other three-year periods in 1951–2017, yielding 64 placebo wet seasons.[37] Second, we randomly assign state repression within each province, allocating 50% of the communes to experience more repression using 10,000 draws.[38]

Figure 5 demonstrates that the estimates from the Khmer Rouge period (the red line) are clear outliers in the cumulative distributions of the placebos. Each graph also displays the fraction of placebo coefficients with a larger magnitude than the actual estimate (for one- and two-tailed tests). Only 1.7% of the placebo estimates of wet-season productivity's impact on the number of dead bodies are more positive than the actual estimate, and 3.2% of the estimates are larger in absolute magnitude when using the 10,000 random draws. Likewise, with the 64 placebo wet seasons, 1.4% of the estimates are more positive, and 4.4% are larger in absolute magnitude.[39] This pattern remains consistent across other outcomes. When examining the standardized index, the true average effect has a greater absolute value than any of the 64 placebo wet-season shocks.

In our final validation, we concentrate on the years surrounding the Khmer Rouge period and investigate whether the effects truly result from wet-season rainfall during the genocide, rather than 1970s weather conditions influencing violence for reasons unrelated to the Khmer Rouge. Appendix Figure A-4 presents estimates of wet-season rain for the time windows 1969–1971, 1972–1974, 1975–1977 (the Khmer Rouge period), 1978–1980, and 1981–1983, plotted against the standardized violence index. There are no indications of pre-trends, and post-genocide rainfall lacks predictive power. Collectively, these validation tests support the interpretation that the productivity-derived measure of state repression captures the regime's labor allocation rule and the resulting concentration of deadly violence. The mass graves and memorials anchor collective remembrance to the landscape; we now examine how this exposure shapes contemporary political behavior, beliefs, and local governance.

4.4 Main Specifications

To study voting outcomes, we estimate:

$$y_c = \delta State\ Repression_c + \Gamma'_c + X'_c + \gamma_p + \pi_y + \varepsilon_c, \tag{3}$$

where y_c includes opposition and incumbent vote shares and turnout in the 2013 national election and the 2012 and 2017 communal elections. When stacking the communal elections, π_y denotes election-year fixed effects; the remaining variables are defined as before. If place-anchored memory of state violence increases willingness to challenge entrenched authority, we expect higher opposition vote shares and turnout ($\delta > 0$) and lower incumbent vote shares ($\delta < 0$).

For beliefs and civic engagement, we use the Asia Foundation Election Survey and the socioeconomic data (CSES). We match respondents to communes, allowing us to estimate a regression nearly iden-

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[37]We create 64 placebo wet seasons using overlapping time windows from 1951 to 2017, excluding the Khmer Rouge period (1975–1977).

[38]Because the share of communes experiencing higher repression is not known a priori, we assign treatment to 50% of communes within each province. Results are similar if we instead use the actual distribution implied by equation (1).

[39]Plotting the distribution of the t-statistics from the placebo wet-season shocks and comparing them to the actual estimate's t-statistic leads to similar conclusions, with 1.4% of the placebo t-statistics having a larger absolute value than the actual statistic.

tical to equation (3). This estimation uses respondent outcomes (y_i), a second-degree polynomial in latitude and longitude (Γ'_c), individual and commune characteristics as defined in Table 2 $(x'_i$ and X'_c, respectively), province or zone fixed effects (γ_{pz}),[40] and survey-year fixed effects (π_y):

$$y_i = \theta State\ Repression_c + \Gamma'_c + X'_c + x'_i + \gamma_{pz} + \pi_y + \varepsilon_i. \tag{4}$$

We report results in two outcome families. First, we study the social costs of exposure. If sites of memory sustain fear and erode social cohesion, we expect lower trust and civic participation $(\theta < 0)$ and heightened perceptions of violence as a societal threat $(\theta > 0)$. Second, we study attitudinal dimensions of political engagement. If the memory of state violence exposes the dangers of unchecked authority, we expect support for pluralism and voter informedness to increase $(\theta > 0)$.

To examine policymaking and rent extraction, we use equation (3) and study land concession permits granted by the local government, deforestation rates, illegal logging, and resource overuse. The predicted sign is ambiguous. If memory-driven political engagement strengthens accountability and monitoring, extraction should fall $(\delta < 0)$. If reduced social cohesion weakens collective monitoring capacity, extraction may rise $(\delta > 0)$. Section 6 explores whether commemorative ceremonies amplify these baseline effects.

4.5   Discussion of Assumptions

Our empirical strategy identifies the causal effect of commune-level exposure to Khmer Rouge repression if the rainfall-driven productivity shock affects contemporary outcomes only through the regime's labor-allocation response, which concentrated forced labor and violence in certain communes. These communes later became sites of memory, where mass graves and memorials anchor collective remembrance to the landscape. We discuss four potential concerns.

First, our estimates require an interpretation of *State Repression* that goes beyond fatalities alone. In Khmer Rouge labor camps, repression also entailed coercive work assignments, pervasive surveillance, and political terror that generated insecurity and distrust. If we attributed all long-run effects exclusively to fatalities, we could instrument killings using the rainfall-based productivity shock and report 2SLS estimates. Because the productivity shock also shifted nonfatal exposure to camp life and the subsequent memorial landscape, a fatalities-only IV strategy would violate the exclusion restriction. We therefore focus on reduced-form estimates that capture the combined long-run effects of heightened local repression and its memorial landscape.

Second, as demonstrated in Section 4.1, the Khmer Rouge targeted more productive areas to increase rice production, which eventually suffered from repression and violence. A competing explanation, in line with the work by Rogall (2021), is that locations affected by heavy rainfall were less accessible, leading the Khmer Rouge to send fewer people there and consequently resulting in reduced repression and violence. However, when we interact the productivity shock with pre-genocide measures capturing the distance to the closest road, we find no heterogeneity with respect to accessibility (Appendix Table A-14). This makes it unlikely that access considerations alone can explain our findings.

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[40]To ensure meaningful within-unit variation, we replace the 24 province fixed effects with 4 agro-ecological zone fixed effects when using the Asia Foundation Election Survey. Appendix Table A-13 shows that the results are qualitatively similar when using province fixed effects.

Third, forced labor may have contributed to infrastructure development or generated income that independently affects political behavior today. However, there is scant evidence of any lasting economic impacts resulting from the regime's efforts. The rainfall shocks are temporary deviations from commune-level means, unlikely to have permanently altered local development conditions. The immediate effect of temporarily raising local food production is also unlikely to have played a role, as the rice was expropriated by the central government for export purposes (Kiernan, 2008). Despite large-scale attempts, production remained low during the genocide, and most infrastructure investments were ill-conceived and subsequently failed. Consequently, few productive remnants were left after the Khmer Rouge's fall from power. We further validate this premise in Section 7, showing that there is no significant relation between our measure of repression and contemporary assets, consumption, poverty indicators, market access, or public infrastructure.

Fourth, population movements raise the concern that differences in survivor demographics, rather than place-based exposure, drive the observed outcomes. Although previous government supporters, suspected dissidents, and the educated were more likely to be targeted, similar selection occurred throughout the country. During the regime, many victims were displaced from their places of origin and exploited in labor camps located in more productive communes. After 1979, survivors returned broadly to their home communes across Cambodia. This implies that the post-genocide demographic composition need not mirror where repression was locally realized. Section 7 shows that our variation is uncorrelated with population levels, age structure, gender ratios, and education. Consistent with broad return migration, we also show that there was no differential in-migration to higher-repression communes immediately after the genocide.

Taken together, these findings clarify the nature of our treatment. Because post-genocide demographics are comparable across communes with different repression exposure, our estimates capture the effect of living in, or returning to, a commune where Khmer Rouge repression and violence were locally concentrated and where the memorial landscape keeps that history publicly visible, rather than differences in who survived or where survivors ultimately resettled in a country that experienced repression nationwide.

5 Results

We now examine outcomes in communes more exposed to Khmer Rouge repression, where traces of that history persist. We first document the social costs of this exposure, then turn to political attitudes and electoral behavior, and finally examine downstream consequences for governance and rent extraction.

5.1 Social Costs of Exposure

Table 3 reports survey-based outcomes using equation (4). The estimates indicate eroded social cohesion and a heightened perception of violence as a societal threat. Residents of higher-repression communes report a decrease in interpersonal trust (assessed both generally and locally) by 12% of a standard deviation, statistically significant at the 1% level.[41] Similarly, column 2 reveals a 7.4% of a standard

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[41] Trust is assessed specifically in terms of trust in the neighborhood and trust in general. For further details, see Appendix D.

deviation decrease in civic participation when asked about their involvement in local associations and in taking local action.[42] This pattern extends to interactions with the state: residents in higher-repression communes contribute less to community public goods, pay less in local taxes, and are less likely to work for the government (Appendix Table A-12).[43]

Column 3 of Table 3 examines whether past repression generates a lasting fear of violence. Respondents were asked about the biggest problems facing Cambodia and their communes. We combine the national and local responses into a standardized index capturing whether violence was identified as the primary concern. Residents of higher-repression communes are 9.1% of a standard deviation more likely to perceive violence as a pressing societal problem.[44] This elevated concern is notable because actual violence is no higher in these locations. Using geo-referenced data on violent events from GDELT (1979–1999), UCDP (1989–2012), and ACLED (2010–2020), we find no relationship between past state repression and contemporary violence (Appendix Table A-10). The memory of state terror elevates concern about violence specifically, not a general sense of societal dysfunction, and it does so despite comparable present-day victimization rates.

Combining trust (reversed), civic participation (reversed), and fear of violence, the composite social costs index increases by 17.1% of a standard deviation.[45]

5.2 Political Engagement

These social costs coexist with greater political engagement. Table 4 shows that residents in higher-repression communes hold stronger democratic attitudes and translate these into higher turnout and greater opposition support.

Columns 1–3 use the Asia Foundation survey and equation (4). Respondents residing in communes exposed to more repression during the Khmer Rouge era demonstrate significantly higher support for democratic principles.[46] According to the estimates, pluralistic sentiments increase by 4.4% of a standard deviation, statistically significant at the 1% level. Residents in these communes are also better informed about politics and election-related issues: column 2 shows that voter informedness rises by 7.0% of a standard deviation.[47] The composite democratic attitudes index confirms these findings, indicating an overall increase of 15.2% of a standard deviation.[48]

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[42]Specific questions include (among others) the number of civic associations a respondent is a member of, their level of activity during meetings, and the impact of local government on the respondent's life. See Appendix D for the complete set of questions.

[43]Community contributions decline by 7% and local tax revenues by 10%. Respondents are 0.8 percentage points less likely to work for the government and 2.2 percentage points more likely to be employed in the foreign private sector. These patterns hold when scaled by household consumption and are not explained by differences in local economic conditions or fiscal capacity (Section 7).

[44]Appendix Table A-10 shows that no other perceived problems, whether economic, institutional, or health-related, differ systematically between communes with higher and lower repression exposure.

[45](Reversed) indicates that the original coding of the variable has been inverted such that lower values correspond to higher levels of social costs.

[46]We include questions addressing preferences for democracy versus a strong leader, voting against the government, and equality between the government and the people. See Appendix D for the full set of questions.

[47]Specific questions cover topics such as media consumption frequency, knowledge of local National Assembly representatives' names, and awareness of the representative's last visit to the respondent's area. See Appendix D for the full set of questions.

[48]The composite index can exceed the individual category effects because the Anderson (2008) inverse-covariance weighting efficiently combines support for pluralism and voter informedness, reducing measurement noise relative to individual components.

The attitudinal differences translate into electoral behavior. Columns 4–9 report commune-level election outcomes using equation (3). Column 4 implies that in the 2013 national election, the opposition CNRP received a 4.9 percentage point larger vote share in communes more exposed to repression (significant at the 1% level), an increase of approximately 13% relative to a mean of 37.5. The communal elections show similar effects, with the CNRP gaining 2.1 percentage points, or about 6%.[49] The higher opposition share is mirrored by less support for the long-term incumbent CPP: the CPP vote share declines by 4.2 percentage points in the national election (column 6) and by 2.0 percentage points in the communal elections. Turnout also rises, by 2.9 percentage points nationally and 3.0 percentage points locally, indicating that opposition gains reflect both switching and mobilization. These findings hold across election years and legislative bodies, alleviating concerns that they are driven by specific elections or politicians.

The effects are not confined to the generation that lived through the Khmer Rouge era. In Appendix Table A-11, we divide the sample into respondents born before 1979 and those born afterward. Both groups display similar differences in social costs and democratic attitudes, though effect sizes are somewhat smaller for younger cohorts. That residents who never experienced the violence directly exhibit similar patterns supports the interpretation that effects operate through place-anchored collective memory rather than individual trauma.

To assess the validity of the findings so far, we conduct placebo tests using wet-season rainfall from alternative three-year periods (similar to those for the incidence of deadly violence in Figure 5). If our productivity-based measure captures the Khmer Rouge's labor allocation rather than some other feature of 1970s weather, rainfall in non-genocide years should be uncorrelated with the outcomes. Appendix Figures A-10–A-12 confirm this: the Khmer Rouge-period estimates for both the survey-based and electoral outcomes are clear outliers when drawn from a distribution with the same spatial correlation patterns. We also verify that results are not driven by influential questions in the index construction; dropping individual questions one at a time produces similar estimates (Appendix Figure A-5).

In sum, collective memory of state violence erodes social trust while strengthening political engagement. Where repression was locally concentrated, fear persists and weakens everyday social interaction, but awareness that unchecked authority enabled past brutality strengthens preferences for accountability and translates into support for the opposition. We next examine whether this political engagement constrains local officials.

5.3 Local Governance

We focus on the natural resource sector, where corruption is pervasive and commune policymakers play a direct role in annexing and seizing land for resource extraction (PLCN, 2019). Between 2001 and 2014, the annual forest loss rate increased by 14.4%, the fastest acceleration globally (Le Billon, 2002; Global Witness, 2007; Un and So, 2011; Scurrah and Hirsch, 2015; Global Forest Watch, 2026; NASA Earth Observatory, 2026).

In 2001, a new law permitted the government to grant land concessions for commercial production if the land lacked public interest. A significant share of these concessions was subsequently allocated to Cambodian business groups, political elites, and foreign investors, with up to 70% of land initially des-

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[49]The communal election results are similar if we analyze each election year separately.

ignated for conservation converted into concessions by 2012 (Neef et al., 2013; Milne, 2015).[50] Given these patterns, the land concession policy serves as a suitable proxy for policymakers' collusive links with private businesses. Focusing on land concessions and deforestation works well for our purpose: these outcomes involve decisions made by local policymakers and, unlike most corruption indicators, provide observable and quantifiable proxies for rent extraction. We investigate whether a commune was granted a concession between 2001 and 2015, and complement this with satellite-based measures of forest loss and survey data on illegal resource use.[51]

Table 5 reports estimates of equation (3). Column 1 shows that higher-repression communes are 5.1 percentage points less likely to have granted an economic land concession between 2001 and 2015, statistically significant at the 1% level. This corresponds to a 26% decline relative to a mean of 0.20 in lower-repression communes. Columns 2 and 3 use satellite-based measures of forest loss between 2000 and 2018 and show lower extraction in higher-repression communes: forest loss (log hectares) falls by 0.627 log points, and the share of forest cover lost declines by 2.6 percentage points relative to a mean of 0.12.[52] Columns 4 and 5 corroborate this pattern using survey-based measures of illegal resource use from the Cambodia Socio-Economic Survey, which also decline in higher-repression communes.[53] Appendix Figure A-13 further shows that the governance estimates are outliers in the distribution computed for the placebo estimates.

Together, these results indicate that locations more exposed to Khmer Rouge repression exhibit not only greater political engagement but also measurably lower rent extraction. Section 6 examines whether commemorative ceremonies amplify these effects.

5.4 Robustness

We assess robustness along several dimensions, with full details in Appendix Sections A.2 and A.3.

First, the findings hold under alternative constructions of the productivity-derived measure of state repression (Appendix Section A.1). Wet-season rainfall is the only seasonal component that significantly predicts rice yields (Appendix Table A-6). Continuous and binary formulations of productivity, as well as commune-level standardization, produce qualitatively similar estimates across all outcome families (Appendix Tables A-15–A-21).

Second, larger urban centers that may have held pluralistic views before the Khmer Rouge period appear unlikely to drive the results. Our measure of state repression is uncorrelated with pre-genocide population density and other commune-level characteristics (Table 2). Excluding communes above the 90th, 95th, or 99th population percentile leaves the coefficients largely unchanged for every outcome (Appendix Tables A-16–A-22). Iteratively dropping each commune suggests that no single location is influential (Appendix Figure A-6).

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[50]By late 2012, economic land concessions encompassed over half of Cambodia's total arable land (ADHOC, 2013).

[51]Hansen et al. (2013) define forest loss as "a stand-replacement disturbance or the complete removal of tree cover canopy at the Landsat pixel scale" (p. 850).

[52]The results are qualitatively similar if we control for forest cover in 2000.

[53]An alternative interpretation is that cultural taboos around mass grave sites mechanically reduce development pressure. This is unlikely for three reasons. First, concessions and deforestation are measured at the commune level, which spans a far larger area than the grave sites themselves. Second, illegal resource use, which is not subject to formal permitting constraints, also declines. Third, the governance effects are attenuated when Day of Anger ceremonies are disrupted by rainfall (Table 6, columns 7-10), a pattern that a time-invariant taboo cannot explain.

Third, we address inference. Standard errors clustered at the province level and corrected for spatial dependence using Conley (1999) yield similar conclusions throughout the paper. Wild cluster bootstrap p-values, reported in Appendix Tables A-23–A-28, are consistent with the baseline province-clustered inference. Randomization inference and placebo tests using the same spatially correlated distribution as our proxy for state repression yield rejection rates that corroborate the parametric p-values reported in the main tables (Figures 5 and A-9–A-16).

6 Public Remembrance

The results so far are consistent with the public remembrance framework: locations of past repression maintain place-anchored collective memory that generates persistent social costs, strengthens political engagement, and constrains rent extraction. An observable implication is that memorials should be denser where exposure was concentrated, a pattern we document before examining whether ceremonies amplify these effects at memorial sites and whether ceremonies produce comparable effects in lower-repression communes.

6.1 Genocide Memorials

If place-anchored memory drives the baseline effects, visible markers of remembrance should be more prevalent where repression was locally concentrated. Genocide memorials exemplify how memorial sites preserve collective memory and keep past violence publicly visible. Following the regime's fall in 1979, human remains were collected and stored in memorial *stupas* (Buddhist shrines) near the Killing Fields. These memorials, still standing today, range from simple wooden structures housing several skulls to large, purpose-built concrete shrines where visible remains are displayed in village centers, schools, and pagodas (Bennett, 2015, 2019; Jarvis, 2015; Fleischman, 2017).

Qualitative evidence from Bennett (2015) and Fleischman (2017) supports the notion that memorials act as persistent and intergenerational transmitters of the memory of the Khmer Rouge atrocities. Through their studies of mass graves and genocide memorials, which include interviews with people living near the sites, respondents express the importance of preserving the human remains as evidence for younger generations, emphasizing the reality of the horrors committed by the Khmer Rouge. One respondent shared that the remains should be kept as evidence for the younger Khmer generation "*to show them it was real: that there was the Khmer Rouge, that Khmer killed Khmer,*" (Bennett, 2015, p. 224). Another stated, "*even though I was not born in that era, this event obviously happened in Khmer Society ... Khmer killed Khmer*" (Bennett, 2015, p. 225). In Fleischman's (2017) work, respondents similarly describe the memorials as persistent reminders of the atrocities and the consequences of unchecked authority: "*we just kept it [the remains] as evidence for a new generation to understand ... just as evidence to know ... how cruel they [were] to their own people, to let the new generation understand about the government, of that leader, especially to understand, just know that, in that period they killed many, many people*" (Fleischman, 2017, p. 190).

Column 1 of Table 6 quantifies this implication. Estimating equation (2), we find that communes more heavily affected by Khmer Rouge repression are 2.2 percentage points more likely to have a genocide memorial (significant at the 1% level), a 63% increase relative to lower-repression communes. This result does not identify the causal effect of memorials. Instead, it documents that the communes where

we observe persistent differences in social costs, political engagement, and governance are also the places where the memorial landscape is denser, consistent with a place-anchored memory channel. This pattern complements the persistence across cohorts throughout Appendix Table A-11, reinforcing a place-based interpretation rather than individual exposure alone.

6.2 Day of Anger Ceremonies

While memorials preserve visibility, the public remembrance framework suggests that collective action under autocracy also depends on coordination moments that reduce mutual uncertainty: gatherings where participation is simultaneous and observable. Cambodia's annual *Day of Anger* ceremonies provide such an occasion.[54] Held outdoors each May 20th, typically at memorial sites nationwide,[55] the ceremonies bring together Buddhist monks, survivors, community members, and schoolchildren for speeches, prayers, and dramatic reenactments of Khmer Rouge violence, drawing large crowds (Guillou, 2013; Bennett, 2015; Fleischman, 2017). Under CPP rule, they are among the few state-sanctioned venues for mass assembly, where attendance can reveal shared political orientations.

To study whether ceremonies amplify the effects of repression exposure, we exploit exogenous variation in local (commune) rainfall on the Day of Anger.[56] Rain discourages outdoor attendance and can disrupt or cancel ceremonies, reducing the likelihood that the gathering becomes a visible coordination moment.[57] Conditional on the baseline probability of rain, rainfall on a specific date is plausibly uncorrelated with other factors affecting political outcomes.

Let *Rainy DoA$_c$* denote the number of rainy Days of Anger in commune c over the five years preceding the outcome of interest, where a day is classified as rainy if precipitation exceeds the historical average for May 20. We augment the baseline specifications in equations (3) and (4) by adding *Rainy DoA$_c$* and its interaction with *State Repression$_c$*. For commune(-year) outcomes, the estimating equation is:

$$
\begin{aligned}
y_c = {} & \delta State\ Repression_c + \varphi Rainy\ DoA_c + \sigma \left(State\ Repression_c \times Rainy\ DoA_c\right) \\
& + \Gamma'_c + X'_c + \gamma_p + \lambda_t + \mu_c + \varepsilon_c,
\end{aligned}
\tag{5}
$$

where μ_c is a set of decile dummies controlling for the probability of rain on the Day of Anger in commune c, ensuring we compare communes with similar baseline rain, and λ_t denotes year fixed effects included in the panel specifications; remaining controls follow the baseline specifications.[58] Higher values of *Rainy DoA$_c$* indicate more disrupted ceremonies and lower expected attendance; δ measures the effect of state repression when all recent Days of Anger were rain-free (*Rainy DoA$_c$* = 0). The interaction term σ captures how this effect changes with disruption. If ceremonies activate place-anchored

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[54]The Khmer term *tvea chong komhung* literally translates to "anniversaries for holding on to anger." The commemoration was officially renamed the "National Day of Remembrance" in 2018, though it is still commonly referred to as the "Day of Anger" or "Day of Hatred" (Jarvis, 2015; Fleischman, 2017). The name change did not alter the format of the ceremonies.

[55]Beyond the Day of Anger, memorial sites host other gatherings with political significance. In the 1980s, the CPP used these sites to legitimize the new government (Bennett, 2015). More recently, both the CPP and the opposition CNRP have held political meetings at memorial locations, and the sites continue to host religious festivals such as *Pchum ben* (the Festival of Hungry Ghosts).

[56]This approach is similar to Madestam et al. (2013), who use daily rainfall to generate variation in Tea Party rally participation.

[57]We do not observe attendance directly. Because the commemoration always occurs on May 20, we use rainfall on that date as a proxy for ceremony disruption, isolating its effect from the general impact of rainfall.

[58]For survey outcomes, we estimate the individual-level analogue using equation (4) with the same interaction terms.

memory and facilitate coordination, as the public remembrance framework suggests, σ should have the opposite sign of δ. Finally, φ measures how outcomes covary with ceremony disruption in lower-repression communes; this term is informative about whether commemorations have systematic effects that do not depend on place-anchored memory.

Table 6 reports the results. Across all outcome families, the interaction coefficient σ is precisely estimated and has the opposite sign of δ. Since higher values of *Rainy DoA$_c$* correspond to greater ceremony disruption, disruption attenuates the effects of repression exposure. The pattern is consistent with the interpretation that ceremonies amplify the political and social consequences of place-anchored memory.

The survey indices (columns 2–3) show that successful ceremonies heighten both the social costs and the political engagement associated with repression exposure. When recent ceremonies were rain-free, higher-repression communes exhibit higher social costs and stronger democratic attitudes ($\delta = 0.318$ and 0.272 standard deviations). Each additional rainy Day of Anger reduces these gaps ($\sigma = -0.093$ and -0.064). By making Khmer Rouge violence acutely salient, ceremonies reactivate fear alongside political engagement.

The electoral results (columns 4–6) show this activation most clearly. In the 2013 national election, higher-repression communes with rain-free ceremonies exhibit a 5.6 percentage point larger opposition vote share, while the CPP is 4.9 percentage points lower. Turnout rises by 5.8 percentage points. Each additional rainy Day of Anger attenuates these differences by 2.7 percentage points for the opposition, 2.5 for the CPP, and 4.8 for turnout. This dependence on rain-free gatherings supports the coordination role emphasized in the framework: observable attendance reduces mutual uncertainty, facilitating opposition voting where collective memory is locally anchored.

Governance outcomes measured in the year following the Day of Anger display the same attenuation pattern (columns 7–10). Forest loss (log hectares) is 0.263 log points lower in higher-repression communes when ceremonies are least disrupted, and each additional rainy Day of Anger offsets 0.052 log points of this reduction (column 7). Illegal resource use shows analogous movements. This timing suggests that the periodic renewal of collective memory helps sustain the accountability pressures documented in Section 5.

Finally, the estimates for φ speak to whether ceremonies operate independently of place-anchored memory. For opposition and incumbent vote shares (columns 4–5), the main effect of ceremony disruption in lower-repression communes is small and statistically indistinguishable from zero, indicating no comparable shifts in party support. Some other outcomes exhibit non-zero φ estimates, but their signs are not consistent with a uniform disruption channel. Most notably, turnout increases with disruption, the opposite of what a ceremonies-independent account would predict if disruption reduces mobilization. This pattern is difficult to reconcile with explanations based solely on information diffusion and suggests that the electoral effects of ceremonies depend on the interaction between the physical site and the public ritual. We next turn to protest, where the coordination logic has its sharpest implications.

6.3   Protest

Protest is a high-risk form of collective action under autocracy and therefore provides a particularly informative setting in which to assess the coordination logic emphasized by public remembrance. If ceremonies activate place-anchored memory and facilitate coordination, protest should respond most

strongly to the interaction of place-anchored memory and successful ceremonies: observable attendance reduces mutual uncertainty and lowers first-mover risk in higher-repression communes.

Table 7 reports estimates of equation (5) using commune-year outcomes measured in the four weeks following May 20 (excluding May 20 itself). Columns 1–2 use an indicator for whether any protest is reported in the commune during this window; columns 3–4 use an intensity measure, the share of protest-related articles among all Radio Free Asia (RFA) coverage assigned to the commune, which reduces sensitivity to variation in reporting intensity. Columns 1 and 3 include the full commune-year panel (15,290 observations), coding zero when no protest is reported; columns 2 and 4 restrict to communes ever covered by RFA (3,620 observations), where protest outcomes exhibit more meaningful variation.

As in Section 6.2, *Rainy DoA$_c$* counts rainy Days of Anger over the preceding five years; δ therefore captures the repression-protest association when none of the last five ceremonies were disrupted (*Rainy DoA$_c$* = 0). The estimates mirror the attenuation pattern in Table 6. In the full sample (column 1), higher-repression communes are 0.5 percentage points more likely to have a protest reported, relative to a mean of 0.2% in lower-repression communes, more than a twofold increase. In the RFA-coverage sample (column 2), the corresponding difference is 2.8 percentage points relative to a mean of 1.0%, roughly a threefold increase. In both samples, the interaction coefficient is negative and precisely estimated: each additional rainy Day of Anger attenuates the repression-protest relationship by 0.1 percentage points in the full sample and by 0.8 percentage points in the RFA-coverage sample. Columns 3–4 show the same qualitative pattern for protest intensity.

Across specifications, the main effect of ceremony disruption in lower-repression communes (φ) is close to zero. This lack of a systematic protest response where repression exposure is weaker suggests that the protest effects operate primarily through the interaction of local repression history and successful public gatherings, rather than through a uniform ceremony effect.[59]

A potential concern with the protest measure is undercounting, since not all protest-related stories contain the relevant keyword in the URL. Appendix C addresses this by expanding the set of protest-related articles using the machine-learning classifier described in Section 3; the key coefficients remain similar under this broader classification.[60] Appendix Figures A-14–A-16 further show that the interaction estimates (σ) are outliers in the placebo distribution, confirming that the attenuation pattern is specific to the Khmer Rouge period.

Taken together with the memorial and Day of Anger evidence, the results in this section complete a coherent pattern consistent with the public remembrance interpretation. Communes with greater Khmer Rouge repression exposure are more likely to host visible memorial infrastructure, and the social, political, and governance differences associated with this exposure are systematically larger when Day of Anger ceremonies are least disrupted by rainfall. The fact that disruption matters most in historically affected communes, and has little systematic association with protest or partisan vote shares where local repression histories are weaker, is difficult to reconcile with a purely informational account, in which commemorations would shift behavior wherever they occur, or with cultural transmission of inherited political dispositions insensitive to short-run disruptions of an annual gathering. The pattern instead

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[59]Appendix Tables A-21 and A-22 report robustness dropping large communes and alternative shock definitions.

[60]The classifier is trained on the URL-identified protest articles and applied to headlines and lead paragraphs; it achieves 91% accuracy in a held-out sample and identifies an additional 209 protest-related articles beyond the 332 URL-coded stories.

aligns with the public remembrance interpretation: ceremonies combine heightened salience with observable participation, reducing mutual uncertainty and lowering first-mover risk. This enables collective action precisely where memory is anchored to place.

These dynamics connect to the broader idea of "authoritarian commons" (Qiao, 2023). The Day of Anger is a state-sanctioned commemoration tied to regime legitimation, yet precisely because it is publicly visible and difficult to eliminate without undermining the regime's own narrative, it can become a predictable venue where citizens observe one another and coordinate (Pfaff and Yang, 2001). In this sense, regime-sponsored remembrance is double-edged: it keeps the past salient, and when crowds gather, it helps convert place-anchored memory into coordinated political behavior, from opposition voting to open protest, alongside constrained local rent extraction even under continued authoritarian rule.

7   Alternative Explanations

Because exposure is defined at the commune level, a natural concern is that communes classified as higher-repression differ from other communes along persistent dimensions: population composition, post-genocide migration, or long-run economic development. Mediating factors such as altered demographics, changes in assets and consumption, or migration patterns could account for the observed variation in political beliefs and behavior. We examine these alternatives using detailed demographic, socioeconomic, infrastructure, and migration data.

First, we examine whether the age distribution changed after Khmer Rouge rule. As a benchmark, we compare post-Khmer Rouge data with national statistics on age from the 1962 census to capture the distribution in Cambodia before the genocide. Figure A-7a contrasts the 1962 distribution with the 1978 age distribution for survivors, using CSES survey data from 1996 to 2016 across communes with varying levels of repression. As expected, young (below age 10) and middle-aged citizens (age 35 and older) were more likely to have died during the regime, but there is no correlation with our measure of repression. Figure A-7b similarly shows no systematic relation between age and residing in a commune that was differentially affected by repression using the current population.[61]

Table 8 corroborates these patterns across a broader set of socioeconomic, demographic, and infrastructure outcomes using our primary specifications, equations (3) and (4). Columns 1–4 show that state repression does not predict contemporary population density, gender ratio, age, or education.[62] Columns 5, 6, and 9 assess a Malthusian argument, in which genocide raised living standards by redistributing productive assets from victims to survivors, by examining individual assets and consumption alongside a commune-level poverty indicator. The estimated effects are indistinguishable from zero.[63]

To investigate population movements just after the genocide, column 7 of Table 8 analyzes individual in-migration in 1979 to current communes of residence. There is no significant difference in in-migration rates across communes, consistent with broad return migration throughout the country.[64] Appendix Ta-

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[61] Appendix Figure A-8 shows analogous patterns when examining women and men separately.

[62] Population density and gender ratio are aggregated at the commune level using the 1998 and 2008 population censuses; age and education are individual-level outcomes from the CSES survey. Appendix Table B-1 confirms these results across the age distribution, and Table 2 presents similar findings using the Asia Foundation Election Survey.

[63] Appendix Tables B-2 and B-3 provide additional supporting evidence on asset composition and inequality.

[64] Appendix Table B-4 displays the same finding across respondent age at the time of the Khmer Rouge.

ble B-2 further shows that individuals who never moved exhibit similar sociodemographic characteristics regardless of repression exposure.[65] Columns 8 and 10 present standardized indices of commune-level market access (distance to business outlets and services) and school access (student-teacher ratios, enrollment rates, and distance to the nearest school). Both are uncorrelated with state repression.[66]

None of the examined characteristics is systematically related to our measure of state repression. This reduces concern that the economic effects of forced labor, subsequent infrastructure investments, survival-driven compositional change, or migration explain the political differences we document. Moreover, the sensitivity of political outcomes to rainfall on a fixed ceremonial date is difficult to square with explanations based on time-invariant economic or demographic differences. Together, these patterns reinforce the interpretation that public remembrance, through memorial sites and commemorative ceremonies, channels the legacy of state repression into contemporary political behavior.

8   Conclusion

Drawing on evidence from Cambodia's Khmer Rouge genocide, we study how public remembrance of state violence shapes politics under continued authoritarian rule. We document that communes where repression was locally concentrated exhibit higher social costs alongside increased political engagement and constrained rent extraction. Mass graves and memorials anchor collective memory to these locations. Annual Day of Anger ceremonies reactivate that memory, reducing mutual uncertainty about others' willingness to act, with effects extending to open protest.

These findings speak to a broader phenomenon in authoritarian politics. Across autocracies, state-tolerated venues can become coordination points: churches, universities, and homeowner associations have served this function in other contexts. We provide evidence that public remembrance of state violence constitutes another such "authoritarian commons." Cambodia's memorial landscape and Day of Anger ceremonies are costly for the CPP to eliminate without undermining its own narrative as guardian against renewed genocide, yet the visible gatherings they enable facilitate coordination that constrains local rent-seeking. While existing research on authoritarian commons focuses primarily on protest mobilization, Cambodia's remembrance infrastructure sustains political engagement beyond protest, from attitudes and voting to governance outcomes.

Our evidence covers a period (2003–2017) when electoral competition, though constrained, still provided a channel for opposition. The dissolution of the CNRP in 2017 and the CPP's subsequent consolidation of power raise the question of whether remembrance-driven mobilization can sustain accountability pressures when formal electoral outlets close. Regimes also differ in how they curate historical memory: some suppress commemoration, others ritualize it, and others weaponize it to evoke fear. In Cambodia, the post-1979 government built its legitimacy on ending the genocide, creating a space for public remembrance that the regime cannot easily retract. Where successor regimes lack such distance from the violence they commemorate, public gatherings may reinforce regime narratives rather than enable opposition coordination.

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[65]Unfortunately, we cannot investigate migration with respect to the survey outcomes on political beliefs and civic participation because those surveys lack migration histories.

[66]Appendix Table B-5 shows similar conclusions using nighttime lights and additional market access proxies. Appendix Table B-6 reports estimates for the underlying components of the indices.

Our findings suggest that the political effects of public remembrance rest on two components: localized memory anchored to places where repression was concentrated, and public gatherings that periodically reactivate that memory. These components vary across post-violence autocracies in informative ways. Russia retains Gulag-era memorial sites but has increasingly restricted the public gatherings around them; China stages large-scale remembrance of Japanese wartime atrocities while suppressing memory of the Cultural Revolution. Whether public remembrance produces political coordination only when regimes cannot easily control its meaning, as in Cambodia, or whether even tightly curated commemoration generates dynamics that constrain state power, presents a natural agenda for future research.

References

Acemoglu, D., T. A. Hassan, and J. A. Robinson (2011). Social Structure and Development: A Legacy of the Holocaust in Russia. *Quarterly Journal of Economics 126*(2), 895–946.

Acemoglu, D. and J. A. Robinson (2001). A Theory of Political Transitions. *American Economic Review 91*(4), 938–963.

Acemoglu, D. and J. A. Robinson (2006). *Economic Origins of Dictatorship and Democracy*. Cambridge: Cambridge University Press.

ADHOC (2013). A Turning Point? Land, Housing and Natural Resources Rights in Cambodia in 2012. https://www.adhoccambodia.org/report-a-turning-point-land-housing-and-natural-resources-rights-in-cambodia-in-2012/.

Amnesty International (2026). Cambodia: Country Page. https://www.amnesty.org/en/location/asia-and-the-pacific/south-east-asia-and-the-pacific/cambodia/. Accessed February 2026.

Anderson, M. L. (2008). Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects. *Journal of the American Statistical Association 103*(484), 1481–1495.

APHRODITE (2007). APHRODITE Gridded Daily Precipitation, (1951–2007). http://www.chikyu.ac.jp/precip/english.

Asia Foundation (2014). Cambodia election survey public opinion dataset (2003, 2014). https://asiafoundation.org. Accessed 2015.

Assmann, J. (2011). *Cultural Memory and Early Civilization. Writing, Remembrance, and Political Imagination*. Cambridge: Cambridge University Press.

Associated Press (2022). Cambodian opposition leader Sam Rainsy sentenced to life in absentia. https://apnews.com/article/sam-rainsy-cambodia-phnom-penh-government-and-politics-d9353a060ce259707666a77abf6dde7c. Accessed February 2026.

Baaz, M. and M. Lilja (2014). Understanding Hybrid Democracy in Cambodia: The Nexus Between Liberal Democracy, the State, Civil Society, and a "Politics of Presence". *Asian Politics & Policy 6*(1), 5–24.

Balcells, L. (2012). The Consequences of Victimization on Political Identities: Evidence from Spain. *Politics & Society 40*(3), 311–347.

Bauer, M., C. Blattman, J. Chytilová, J. Henrich, E. Miguel, and T. Mitts (2016). Can War Foster Cooperation? *Journal of Economic Perspectives 30*(3), 249–274.

Bautista, M. A., F. González, L. R. Martínez, P. Muoz, and M. Prem (2023). The Geography of Repression and Opposition to Autocracy. *American Journal of Political Science 67*(1), 101–118.

Bellows, J. and E. Miguel (2009). War and Local Collective Action in Sierra Leone. *Journal of Public Economics 42*(11-12), 1144–1157.

Bennett, C. (2015). *To Live Amongst the Dead: An Ethnographic Exploration of Mass Graves in Cambodia*. University of Kent.

Bennett, C. (2019). Human Remains from the Khmer Rouge Regime, Cambodia. In K. Squires, D. Errickson, and N. Márquez-Grant (Eds.), *Ethical Approaches to Human Remains*, pp. 567–582. New York: Springer International Publishing.

Bisin, A. and T. Verdier (2001). The Economics of Cultural Transmission and the Dynamics of Preferences. *Journal of Economic Theory 97*(2), 298–319.

Blattman, C. (2009). From Violence to Voting: War and Political Participation in Uganda. *American Political Science Review 103*(2), 231–247.

Bordalo, P., N. Gennaioli, and A. Shleifer (2020). Memory, Attention, and Choice. *Quarterly Journal of Economics 135*(3), 1399–1442.

Borusyak, K. and P. Hull (2023). Nonrandom Exposure to Exogenous Shocks. *Econometrica 91*(6), 2155–2185.

Burgess, R., R. Jedwab, E. Miguel, A. Morjaria, and G. Padró i Miquel (2015). The Value of Democracy: Evidence from Road Building in Kenya. *American Economic Review 105*(6), 1817–1851.

Bursztyn, L., A. L. González, and D. Yanagizawa-Drott (2020). Misperceived Social Norms: Women Working Outside the Home in Saudi Arabia. *American economic review 110*(10), 2997–3029.

Cambodian Genocide Program (2026a). Cambodian Genocide Database (CGDB). https://gsp.yale.edu.

Cambodian Genocide Program (2026b). U.S. Bombing Data for Cambodia, 1965–1973. https://gsp.yale.edu.

Cannella, M., A. Makarin, and R. Pique (2024). The Political Legacy of Nazi Annexation. *Economic Journal 134*(661), 1721–1759.

Cantoni, D., Y. Chen, D. Y. Yang, N. Yuchtman, and Y. J. Zhang (2017). Curriculum and Ideology. *Journal of Political Economy 125*(2), 338–392.

Cantoni, D., D. Y. Yang, N. Yuchtman, and Y. J. Zhang (2019). Protests as Strategic Games: Experimental Evidence from Hong Kong's Antiauthoritarian Movement. *Quarterly Journal of Economics 134*(2), 1021–1077.

Cantoni, D. and N. Yuchtman (2025). Acemoglu, Johnson, and Robinson: The Identification of Historically Contingent Causal Effects. *Scandinavian Journal of Economics 127*(3), 495–510.

Center for Systemic Peace (2024). Polity Project (Polity IV/Polity5) Country Scores and Regime Classifications. https://www.systemicpeace.org/polityproject.html. Accessed February 2026.

Chandler, D. (Ed.) (1988). *The Tragedy of Cambodian History. Politics, War, and Revolution since 1945*. New Haven, CT: Yale University Press.

Chandler, D. (2008). *A history of Cambodia*. Boulder, CO: Westview Press.

Chandler, D., B. Kiernan, and C. Boua (Eds.) (1988). *Pol Pot Plans the Future: Confidential Leadership Documents from Democratic Kampuchea, 1976-1977*. New Haven, CT: Yale Southeast Asia Studies Monograph Series.

Charnysh, V. and E. Finkel (2017). The Death Camp Eldorado: Political and Economic Effects of Mass Violence. *American Political Science Review 111*(4), 801–818.

Chwe, M. S.-Y. (2001). *Rational Ritual: Culture, Coordination, and Common Knowledge*. Princeton: Princeton University Press.

Clingingsmith, D., A. I. Khwaja, and M. Kremer (2009). Estimating the Impact of the Hajj: Religion and Tolerance in Islam's Global Gathering. *Quarterly Journal of Economics 124*(3), 1133–1170.

Conley, T. G. (1999). GMM Estimation with Cross Sectional Dependence. *Journal of Econometrics 92*(1), 1–45.

Connerton, P. (1989). *How Societies Remember*. Cambridge, England; New York: Cambridge University Press.

Davenport, C. (2007). State Repression and Political Order. *Annual Review of Political Science 10*(1), 1–23.

DC-Cam (2026). Interviews with Victims of the Democratic Kampuchea Regime. https://dccam.org/homepage.

Depetris-Chauvin, E., R. Durante, and F. Campante (2020). Building Nations through Shared Experiences: Evidence from African Football. *American Economic Review 110*(5), 1572–1602.

Desbarats, J. (1995). *Prolific survivors: Population change in Cambodia 1975-1993*. Arizona State University.

Durkheim, E. (1912). *The Elementary Forms of Religious Life*. New York: Free Press.

Eckstein, D., V. Künzel, and L. Schäfer (2021). Global Climate Risk Index 2021. `https://germanwatch.org/en/cri`.

Economist Intelligence Unit (2024). Democracy Index 2024. `https://www.eiu.com/n/campaigns/democracy-index-2024/`. Accessed February 2026.

Enikolopov, R., A. Makarin, and M. Petrova (2020). Social Media and Protest Participation: Evidence from Russia. *Econometrica 88*(4), 1479–1514.

Etzioni, A. (2000). Toward a Theory of Public Ritual. *Sociological Theory 18*(1), 44–59.

FAO (2002). *FAO Rice Information, vol. 3*. Rome: Food and Agriculture Organization of the United Nations (FAO).

FAO (2026). Global Agro-Ecological Zones (GAEZ) Database. `http://gaez.fao.org`.

Fleischman, J. M. (2017). *Remains of Khmer Rouge Violence: the Materiality of Bones as Scientific Evidence and Affective Agents of Memory*. Michigan State University.

Fontana, N., T. Nannicini, and G. Tabellini (2023). Historical Roots of Political Extremism: The Effects of Nazi Occupation of Italy. *Journal of Comparative Economics 51*(3), 723–743.

Fouka, V. and H.-J. Voth (2023). Collective Remembrance and Private Choice: German-Greek Conflict and Behavior in Times of Crisis. *American Political Science Review 117*(3), 851–870.

Gaikwad, N., E. Lin, and N. Zucker (2023). Gender after genocide: How violence shapes long-term political representation. *World Politics 75*(3), 439–481.

Giry, S. (2015). Autopsy of a Cambodian Election: How Hun Sen Rules. *Foreign Affairs 94*(5), 144–159.

Giuliano, P. and N. Nunn (2021). Understanding Cultural Persistence and Change. *The Review of Economic Studies 88*(4), 1541–1581.

Global Forest Watch (2026). Tree Cover Loss: Cambodia. `https://www.globalforestwatch.org`. Accessed February 2026.

Global Witness (2007). Cambodia's Family Trees: Illegal Logging and the Stripping of Public Assets by Cambodia's Elite. `https://www.globalwitness.org/en/reports/cambodias-family-trees`.

Guillou, A. Y. (2013). The Living Archaeology of a Painful Heritage: The First and Second Life of the Khmer Rouge Mass Graves. In M. Falser and M. Juneja (Eds.), *'Archaeologizing' Heritage? Transcultural Entanglements between Local Social Practices and Global Virtual Realities*, pp. 263–274. Heidelberg: Springer International Publishing.

Halbwachs, M. (1992). *On Collective Memory*. Chicago: University of Chicago Press.

Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, S. V. Stehman, S. J. Goetz, T. R. Loveland, A. Kommareddy, A. Egorov, L. Chini, C. O. Justice, and J. R. G. Townshend (2013). High-Resolution Global Maps of 21st-Century Forest Cover Change. *Science 342*(6160), 850–853. Data retrieved from: `http://www.glad.umd.edu/dataset`.

Heder, S. and B. D. Tittemore (2004). *Watching Cambodia: Ten Paths to Enter the Cambodian Tangle*. Phnom Penh: Documentation Center of Cambodia.

Heuveline, P. (1998). 'Between One and Three Million': Towards the Demographic Reconstruction of a Decade of Cambodian History (1970-1979). *Population studies 52*(1), 49–64.

Hiebert, M. S. (2017). Genocide, Revolution, and Starvation under the Khmer Rouge. *Genocide Studies International 11*(1), 68–86.

Hirschman, A. O. (1970). *Exit, Voice, and Loyalty. Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press.

Homola, J., M. M. Pereira, and M. Tavits (2020). Legacies of the Third Reich: Concentration Camps and Out-group Intolerance. *American Political Science Review 114*(2), 573–590.

Human Rights Watch (2021). World Report 2021: Cambodia. `https://www.hrw.org/world-report/2021`. Accessed February 2026.

Human Rights Watch (2022). Cambodia: Ruling Party Manipulated June Commune Elections. `https://www.hrw.org/news/2022/12/15/cambodia-ruling-party-manipulated-june-commune-elections`. Published December 15, 2022.

Human Rights Watch (2025). World Report 2025: Cambodia. `https://www.hrw.org/world-report/2025/country-chapters/cambodia`. Accessed February 2026.

Jarvis, H. (2015). Powerful Remains: the Continuing Presence of Victims of the Khmer Rouge Regime in Today's Cambodia. *Human Remains and Violence 1*(2), 36–55.

Javier, E. (1997). Rice Ecosystems and Varieties. In H. J. Nesbitt (Ed.), *Rice Production in Cambodia*, pp. 40–81. IRRI-Cambodia: International Rice Research Institute.

Kaur, H. and N. Yuchtman (2024). Protests on Campus: The Political Economy of Universities and Social Movements. *Comparative Economic Studies 66*(4), 621–638.

Kiernan, B. (Ed.) (2008). *The Pol Pot Regime*. Yale University Press.

Kubik, J. (1994). *The Power of Symbols Against the Symbols of Power: The Rise of Solidarity and the Fall of State Socialism in Poland*. Pennsylvania State University Press.

Kuran, T. (1995). *Private Truths, Public Lies: The Social Consequences of Preference Falsification*. Cambridge, MA: Harvard University Press.

Kwon, S. and J. Roth (2025). Testing Mechanisms. Working Paper.

Le Billon, P. (2002). Logging in Muddy Waters: The Politics of Forest Exploitation in Cambodia. *Critical Asian Studies 34*(4), 563–586.

Ledgerwood, J. and J. Vijghen (2002). *Decision making in Khmer Villages*. DeKalb, IL: Northern Illinois University, Center for Southeast Asian Studies.

Leetaru, K. and P. A. Schrodt (2010). GDELT: Global Data on Events, Location, and Tone, 1979-2012. *ISA Annual Convention 2*, 1–49.

LICADHO (2015). Economic Land Concessions (ELC) Dataset. `https://www.licadho-cambodia.org/land_concessions/`.

Lohmann, S. (1994). The Dynamics of Informational Cascades: The Monday Demonstrations in Leipzig, East Germany, 1989-91. *World Politics 47*(1), 42–101.

Lowes, S. and E. Montero (2021). Concessions, Violence, and Indirect Rule: Evidence from the Congo Free State. *Quarterly Journal of Economics 136*(4), 2047–2091.

Lupu, N. and L. Peisakhin (2017). The Legacy of Political Violence across Generations. *American Journal of Political Science 61*(4), 836–851.

Madestam, A., D. Shoag, S. Veuger, and D. Yanagizawa-Drott (2013). Do Political Protests Matter? Evidence from the Tea Party Movement. *Quarterly Journal of Economics 128*(4), 1633–1685.

Madestam, A. and D. Yanagizawa-Drott (2011). Shaping the Nation: The Effect of Fourth of July on Political Preferences and Behavior in the United States. Working Paper.

Marston, J. (1997). Metaphors of the Khmer Rouge. In M. M. Ebihara, C. A. Mortland, and J. Ledgerwood (Eds.), *Cambodian Culture Since 1975: Homeland and Exile*, pp. 105–118. Ithaca, NY: Cornell University Press.

Martinez-Bravo, M., G. Padró i Miquel, N. Qian, and Y. Yao (2022). The Rise and Fall of Local Elections in China. *American Economic Review 112*(9), 2921–2958.

Miao, M., J. Ponticelli, and Y. Shao (2023). Eclipses and the Memory of Revolutions: Evidence from China. NBER Working Paper 29182.

Milne, S. (2015). Cambodia's Unofficial Regime of Extraction: Illicit Logging in the Shadow of Transnational Governance and Investment. *Critical Asian Studies 47*(2), 200–228.

NASA Earth Observatory (2026). Cambodia: Forest Loss Overview. `https://www.earthobservatory.nasa.gov`. Accessed February 2026.

National Election Committee of Cambodia (2017). Commune Council Election Results (2012 and 2017). `https://www.nec.gov.kh`. Accessed 2017.

Neef, A., S. Touch, and J. Chiengthong (2013). The Politics and Ethics of Land Concessions in Rural Cambodia. *Journal of Agricultural and Environmental Ethics 26*(6), 1085–1103.

Nesbitt, H. J. (Ed.) (1997a). *Rice production in Cambodia*. IRRI-Cambodia: International Rice Research Institute.

Nesbitt, H. J. (1997b). Topography, Climate, and Rice Production. In H. J. Nesbitt (Ed.), *Rice Production in Cambodia*, pp. 15–19. IRRI-Cambodia: International Rice Research Institute.

NOAA (2013). DMSP-OLS Nighttime Lights Time Series, Version 4 (1992–2013). https://ngdc.noaa.gov/eog/dmsp/downloadV4composites.html.

NOAA (2017). FEWS Rainfall Estimates (RFE) for South Asia, 2002–2017. Daily rainfall estimates; accessed 2017.

Noelle-Neumann, E. (1974). The Spiral of Silence: A Theory of Public Opinion. *Journal of Communication 24*(2), 43–51.

Nora, P. (1989). Between Memory and History: Les Lieux de Mémoire. *Representations* (26), 7–24.

Norén-Nilsson, A. (2016a). *Cambodia's Second Kingdom. Nation, Imagination, and Democracy*. Ithaca, NY: Cornell University Press.

Norén-Nilsson, A. (2016b). Good Gifts, Bad Gifts, and Rights: Cambodian Popular Perceptions and the 2013 Elections. *Pacific Affairs 89*(4), 795–815.

Nunn, N. and L. Wantchekon (2011). The Slave Trade and the Origins of Mistrust in Africa. *American Economic Review 101*(7), 3221–3252.

Ochsner, C. and F. Roesel (2024). Activated History: The Case of the Turkish Sieges of Vienna. *American Economic Journal: Applied Economics 16*(3), 76–112.

Olick, J. K. and J. Robbins (1998). Social Memory Studies: From "Collective Memory" to the Historical Sociology of Mnemonic Practices. *Annual Review of Sociology 24*(1), 105–140.

Open Development Cambodia (2012). Market Access and Transport Network Data (2012). https://opendevelopmentcambodia.net.

Open Development Cambodia (2013). National Assembly Election Results (2013). https://opendevelopmentcambodia.net. Accessed 2017.

Opp, K.-D. and C. Gern (1993). Dissident Groups, Personal Networks, and Spontaneous Cooperation: The East German Revolution of 1989. *American sociological review*, 659–680.

Overbye, E. (1996). Democracy as Insurance. *Public Choice 87*(3-4), 319–345.

Owen, T. and B. Kiernan (2006). Bombs over Cambodia. *The Walrus* (October).

Pfaff, S. and G. Yang (2001). Double-edged rituals and the symbolic resources of collective action: Political commemorations and the mobilization of protest in 1989. *Theory and Society 30*(4), 539–589.

PLCN (2019). Monitoring Group Blames Rise in Forest Crimes on Authorities Turning Blind Eye. https://preylang.net/2019/06/18/monitoring-group-blames-rise-in-forest-crimes-on-authorities-turning-blind-eye/.

Qiao, S. (2023). The Authoritarian Commons: Divergent Paths of Neighborhood Democratization in Three Chinese Megacities. *American Journal of Comparative Law 71*(2), 388–443.

Qiao, S. (2024). Cooperating to Resist: Society and State during China's COVID Lockdowns. *Yale Journal of Law & the Humanities 35*(4), 877–924.

Qin, B., D. Strömberg, and Y. Wu (2024). Social Media and Collective Action in China. *Econometrica 92*(6), 1993–2026.

Raleigh, C., A. Linke, H. Hegre, and J. Karlsen (2010). Introducing ACLED: An Armed Conflict Location and Event Dataset: Special Data Feature. *Journal of Peace Research 47*(5), 651–660.

Reuters (2022). Cambodia's ruling party wins local commune elections but new opposition gains. https://www.reuters.com/world/asia-pacific/cambodias-ruling-party-wins-local-commune-elections-new-opposition-gains-2022-06-06/. Published June 6, 2022.

Reuters (2023a). Cambodia holds lopsided election ahead of historic transfer of power. https://www.reuters.com/world/asia-pacific/cambodia-holds-lopsided-election-ahead-historic-transfer-power-2023-07-22/. Published July 22, 2023.

Reuters (2023b). Cambodia legislature approves Hun Manet as new prime minister. https://www.reuters.com/world/asia-pacific/cambodia-legislature-approves-hun-manet-new-prime-minister-2023-08-22/. Published August 22, 2023.

Reuters (2023c). Cambodian opposition figure Kem Sokha sentenced to 27 years for treason. https://www.reuters.com/world/asia-pacific/cambodian-opposition-figure-kem-sokha-sentenced-27-years-treason-2023-03-03/. Published March 3, 2023.

Reuters (2023d). Cambodia's Hun Sen says he will step down and hand power to his son next month. https://www.reuters.com/world/asia-pacific/cambodias-hun-sen-says-will-step-down-pm-speech-2023-07-26/. Published July 26, 2023.

Rice, S. and J. Tyner (2017). The Rice Cities of the Khmer Rouge: An Urban Political Ecology of Rural Mass Violence. *Transactions of the Institute of British Geographers 42*(4), 559–571.

Rogall, T. (2021). Mobilizing the Masses for Genocide. *American Economic Review 111*(1), 41–72.

Rohner, D., M. Thoenig, and F. Zilibotti (2013). Seeds of Distrust: Conflict in Uganda. *Journal of Economic Growth 18*(3), 217–252.

Rozenas, A., S. Schutte, and Y. Zhukov (2017). The Political Legacy of Violence: The Long-Term Impact of Stalin's Repression in Ukraine. *The Journal of Politics 79*(4), 1147–1161.

Rozenas, A. and Y. Zhukov (2019). Mass Repression and Political Loyalty: Evidence from Stalin's 'Terror by Hunger'. *American Political Science Review 113*(2), 569–583.

Schelling, T. C. (1960). *The Strategy of Conflict*. Cambridge, MA: Harvard University Press.

Scott, J. C. (1990). *Domination and the Arts of Resistance: Hidden Transcripts*. New Haven, CT: Yale University Press.

Scurrah, N. and P. Hirsch (2015). The Political Economy of Land Governance in Cambodia. http://mrlg.org/wp-content/uploads/2015/12/Political_Economy_of_Land_Governance_in_Cambodia.pdf.

Strangio, S. (2014). *Hun Sen's Cambodia*. New Haven, CT: Yale University Press.

Sundberg, R. and E. Melander (2013). Introducing the UCDP Georeferenced Event Dataset. *Journal of Peace Research 50*(4), 523–532.

Tabellini, G. (2008). The scope of cooperation: Values and incentives. *Quarterly Journal of Economics 123*(3), 905–950.

Thion, S. (1993). *Watching Cambodia: Ten Paths to Enter the Cambodian Tangle*. Bangkok: White Lotus.

Transparency International (2024). Corruption Perceptions Index 2024. https://www.transparency.org/en/cpi/2024. Accessed February 2026.

Tur-Prats, A. and F. Valencia Caicedo (2025). The Long Shadow of the Spanish Civil War. Working Paper.

Turner, V. (1985). *The Ritual Process: Structure and Anti-Structure*. Ithaca: Cornell University Press.

Twining, C. (1988). The Economy. In K. D. Jackson (Ed.), *Cambodia, 1975-1978: Rendezvous with Death*, pp. 109–150. Princeton: Princeton University Press.

Tyner, J. (2017a). *From Rice Fields to Killing Fields. Nature, Life, and Labor Under the Khmer Rouge*. Syracuse University Press.

Tyner, J. (2017b). *Landscape, Memory, and Post-violence in Cambodia*. New York: Rowman & Littlefield.

Un, K. (2015). The Cambodian People Have Spoken: Has the Cambodian People's Party Heard? In D. Singh (Ed.), *Southeast Asian Affairs 2015*, pp. 102–116. ISEAS-Yusof Ishak Institute.

Un, K. and S. So (2011). Land Rights in Cambodia: How Neopatrimonial Politics Restricts Land Policy Reform. *Pacific Affairs 84*(2), 289–308.

U.S. Army Map Service (1973). Cambodia Topographic Map Series L7016 (1:50,000). https://gsp.yale.edu. Individual sheets compiled 1970–1973; provider: Cambodian Genocide Program, Yale University.

Vickery, M. (1999). *Cambodia 1975-1982*. Chiang Mai: Silkworm Books.

Voigtländer, N. and H.-J. Voth (2012). Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany. *Quarterly Journal of Economics 127*(3), 1339–1392.

Voors, M. J., E. E. M. Nillesen, P. Verwimp, E. H. Bulte, R. Lensink, and D. P. Van Soest (2012). Violent Conflict and Behavior: A Field Experiment in Burundi. *American Economic Review 102*(2), 941–64.

Wood, E. J. (2003). *Insurgent Collective Action and Civil War in El Salvador*. Cambridge: Cambridge University Press.

World Bank (2026). Cambodia Overview. http://www.worldbank.org/en/country/cambodia/overview. Accessed February 2026.

Xue, M. M. (2021). Autocratic Rule and Social Capital: Evidence from Imperial China. Working Paper.

Yimsut, R. (2011). *Facing the Khmer Rouge: A Cambodian Journey*. New Brunswick, NJ: Rutgers University Press.

9 Figures and Tables

Figure 1: The Killing Fields and Predicted State Repression

(a) Cambodia's Killing Fields

(b) Predicted State Repression
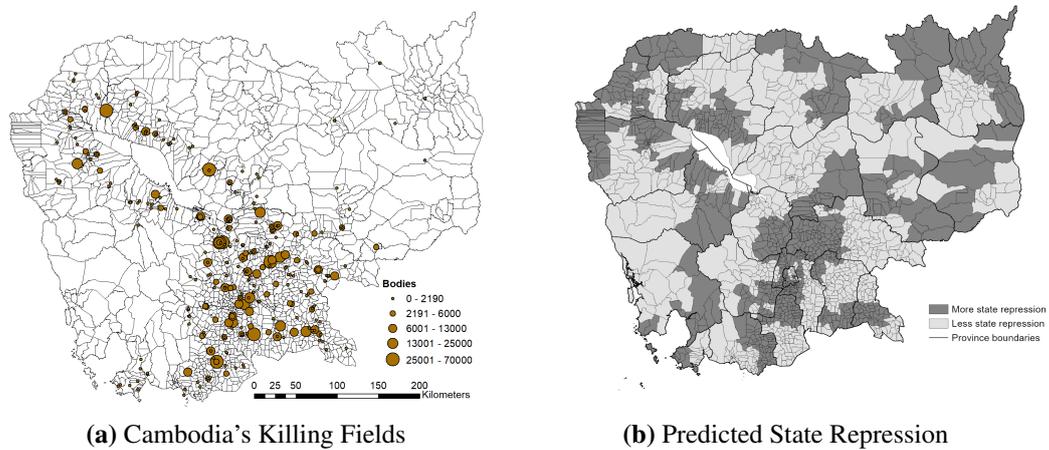
Notes: Panel (a) depicts the location of Killing Fields across Cambodia. There are 309 sites with an average of 61 mass graves and 3,154 bodies. Circle sizes represent the number of bodies found. Panel (b) shows the geographic variation in predicted state repression during the Khmer Rouge period (1975–1977) using equation (1). Dark gray communes indicate areas predicted to have experienced higher levels of state repression.

Figure 2: Public Remembrance Framework
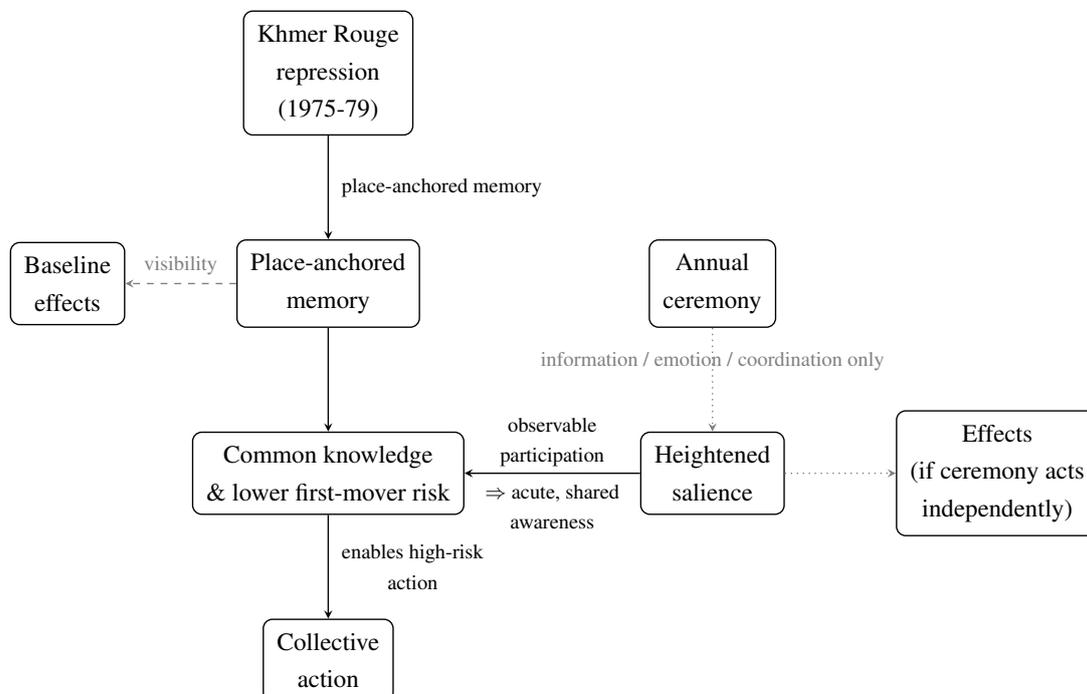
Notes: The figure illustrates the three empirical patterns distinguished by the public remembrance framework. Dashed arrows (Implication 1) represent the memory-only pathway from place-anchored memory to baseline effects through persistent visibility. Dotted arrows (Implication 2) show the ceremony-only pathway, which operates independently of local memory. Solid arrows (Implication 3) depict the joint pathway where memorial sites and ceremonies interact to produce collective action.

Figure 3: Associations Between Economic Development, Deadly Violence, and Support for the Opposition
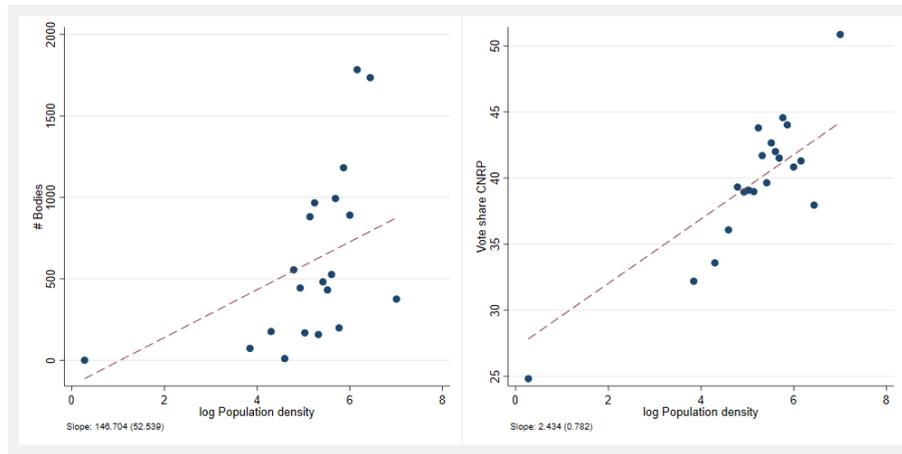
Notes: The figure shows that the indicator of deadly violence during the Khmer Rouge era (number of dead bodies) and support for the opposition 40 years later (CNRP vote share) both exhibit a positive association with pre-Khmer Rouge population density.

Figure 4: Predicted Rice Yields, Targeted Increases, and Contemporaneous Production
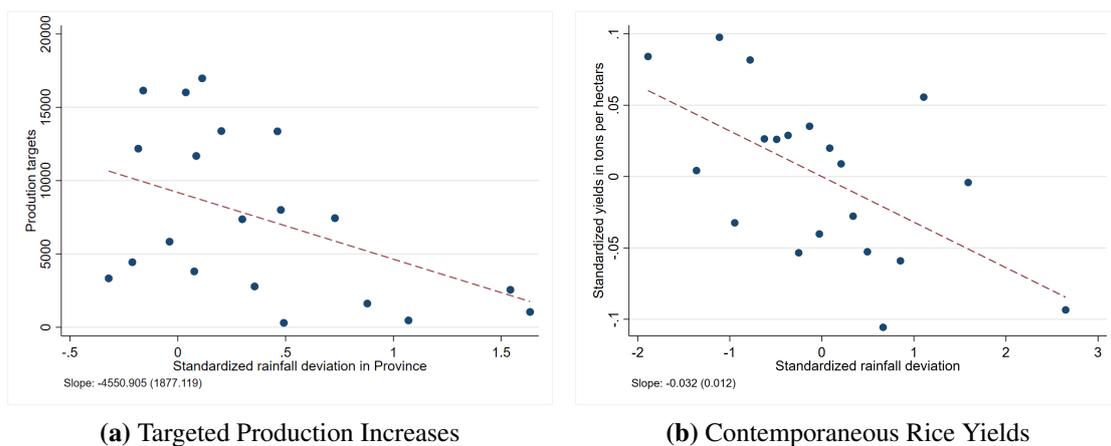
(a) Targeted Production Increases **(b)** Contemporaneous Rice Yields

Notes: Panel (a) displays the association between predicted rice yields and targeted production during the Khmer Rouge era. Panel (b) plots standardized rice yields as a function of standardized rainfall during the wet season from 1996-2016.

Figure 5: Placebo Estimates for the Incidence of Deadly Violence
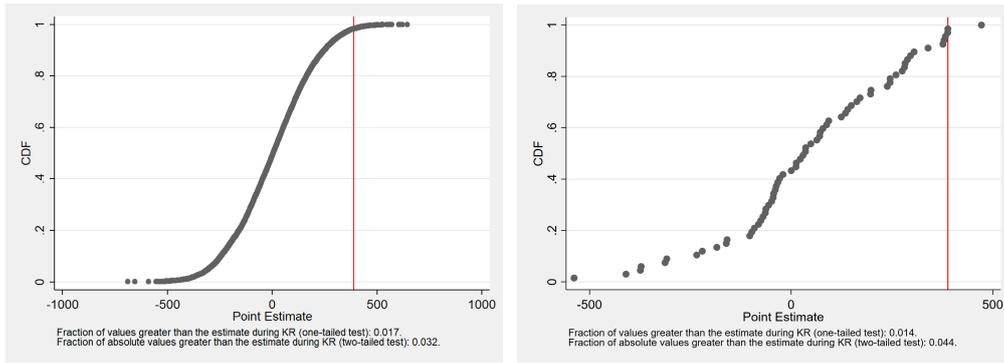
(a) # Bodies in commune
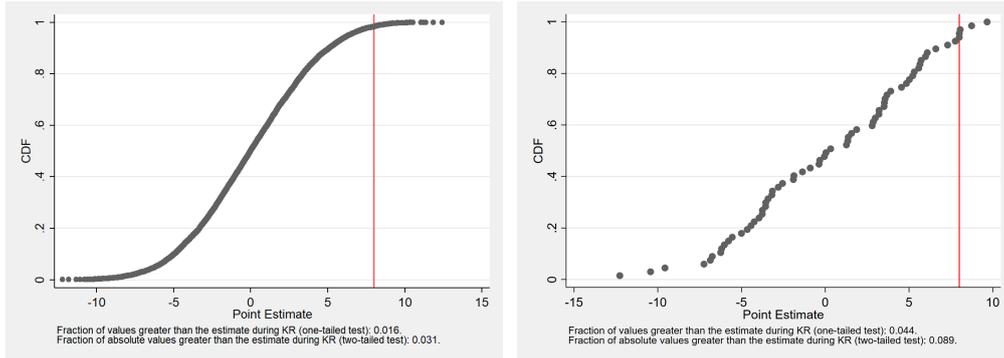
(b) # Mass graves in commune
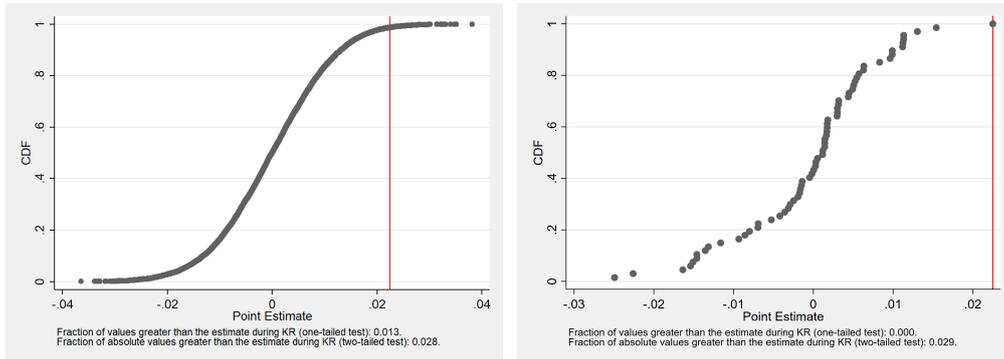
(c) Genocide memorial in commune
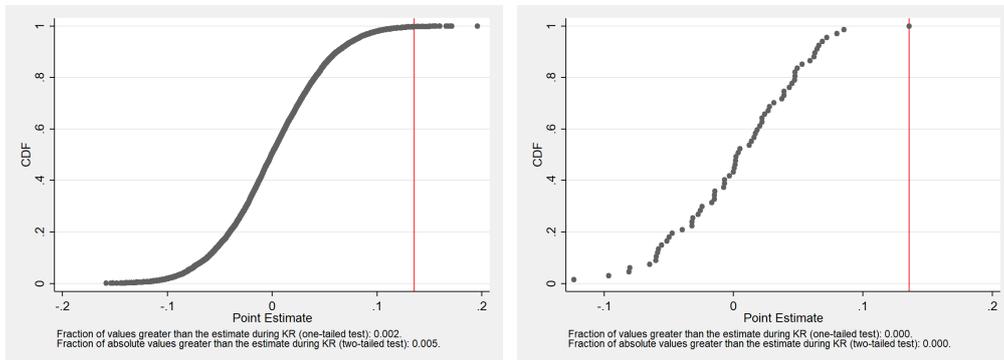
(d) Standardized violence

Notes: The graphs show the main effect of state repression during the Khmer Rouge era compared to the cumulative distribution of estimates of an alternative production shock in placebo years. The red line indicates the estimated coefficient in the period 1975–1977. Under every graph, two statistics denoting the *p*-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.

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Table 1: Incidence of Deadly Violence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	#Bodies		#Mass graves		Genocide memorial		Standardized violence	
State Repression	377.914***	388.624***	8.501***	8.001***	0.020***	0.022***	0.127***	0.135***
	(171.222)	(150.530)	(3.529)	(3.188)	(0.011)	(0.010)	(0.045)	(0.043)
	[141.584]	[138.740]	[2.909]	[2.847]	[0.008]	[0.008]	[0.033]	[0.031]
Pre-genocide commune characteristics		Yes		Yes		Yes		Yes
Mean	407.873	407.873	7.094	7.094	0.035	0.035		
Observations	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621

Notes: The unit of observation is a commune. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). '#Bodies' is the number of dead bodies recovered after the genocide, '#Mass graves' is the number of mass graves recovered after the genocide, and 'Genocide memorial' is a dummy variable equal to 1 if the commune has a memorial commemorating the genocide. 'Standardized violence' is the standardized index of '#Bodies', '#Mass graves', and 'Genocide memorial', accounting for the covariance between these variables. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 2: Exogeneity Test

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Less state repression (lower-productivity communes)		More state repression (higher-productivity communes)		Exogeneity test			
	Mean	S.D.	Mean	S.D.	β	s.e.	T-Stat	p-value
Pre-genocide commune characteristics								
Commune with commune office	0.383	0.486	0.386	0.487	0.001	0.029	0.048	0.961
Commune with post office	0.017	0.131	0.016	0.125	−0.003	0.005	−0.529	0.597
Commune with school	0.670	0.471	0.705	0.456	0.026	0.025	1.046	0.296
Commune with telephone	0.004	0.061	0.006	0.078	0.002	0.003	0.579	0.563
log Population density	5.189	1.521	5.096	1.576	−0.024	0.133	−0.182	0.856
log Rice field area	5.691	2.841	6.239	2.430	0.392	0.349	1.123	0.261
log Area partially inundated	3.250	3.246	2.894	3.085	−0.125	0.247	−0.504	0.614
log Area covered by dense forests	4.081	3.941	3.911	3.594	−0.281	0.469	−0.599	0.549
log Commune area	3.864	1.619	3.814	1.152	−0.134	0.114	−1.173	0.241
log Distance to Phnom Penh	4.448	1.450	4.549	0.937	−0.067	0.069	−0.967	0.334
log Distance to closest road	0.397	1.416	0.387	1.465	0.032	0.116	0.272	0.786
log Distance to province capital	2.440	2.851	2.810	2.125	−0.003	0.103	−0.032	0.974
log Bomb load 1965-1973	4.932	3.356	4.630	3.188	0.095	0.236	0.402	0.688
log Potential yields (Rice)	1.013	0.014	1.015	0.013	0.000	0.000	0.850	0.395
log Potential yields (Banana)	0.397	0.660	0.401	0.586	0.019	0.028	0.680	0.496
log Potential yields (Coconut)	−0.157	1.660	−0.400	2.068	−0.021	0.092	−0.234	0.815
log Potential yields (Maize)	0.857	0.048	0.861	0.043	−0.000	0.001	−0.255	0.799
Individual characteristics, Asia Foundation Election Survey 2003 and 2014								
Brick House	0.892	0.311	0.887	0.317	0.011	0.023	0.480	0.636
Education	2.369	1.298	2.244	1.192	−0.131	0.112	−1.173	0.253
Ethnicity	0.038	0.335	0.088	0.592	0.041	0.042	0.968	0.344
Income	2.990	1.839	3.003	1.829	−0.085	0.128	−0.664	0.513
Interview circumstance	1.125	1.220	1.163	1.198	0.111	0.059	1.874	0.074
Male	0.488	0.500	0.501	0.500	0.013	0.017	0.779	0.445
Urban	0.497	0.500	0.506	0.500	0.009	0.062	0.146	0.885
Year of birth	1969.798	15.256	1970.949	14.963	0.288	0.620	0.464	0.647
Individual characteristics, Cambodia Socio-Economic Survey 1996-2016								
Male	0.480	0.500	0.481	0.500	−0.001	0.002	−0.432	0.666
Urban	0.338	0.473	0.230	0.421	0.021	0.055	0.377	0.706
Year of birth	1979.462	19.389	1980.076	19.591	−0.058	0.208	−0.277	0.782
Years of education	5.532	5.337	5.010	5.142	−0.033	0.070	−0.047	0.635

Notes: The unit of observation is a commune-year (survey respondent) for the commune (individual) characteristics. Communes are partitioned by *State Repression* [equation (1)], which equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Commune with commune office' is a dummy variable equal to 1 if there was a commune office in the commune, 'Commune with post office' is a dummy variable equal to 1 if there was a post office in the commune, 'Commune with school' is a dummy variable equal to 1 if there was a school building in the commune, 'Commune with telephone' is a dummy variable equal to 1 if the commune had access to a telephone, 'log Population density' is defined as the log of the number of buildings divided by the total area of the commune, 'log Rice field area' is defined as the log of the area used for growing rice in the commune, 'log Area partially inundated' is defined as the log of the area that is seasonally flooded in the commune, 'log Area covered by dense forests' is defined as the log of the area covered by dense forests in the commune, 'log Commune area' is defined as the log of the total area of the commune, 'log Distance to Phnom Penh' is defined as the log of the distance to the capital Phnom Penh from the commune, 'log Distance to closest road' is defined as the log of the distance to the closest road from the commune, 'log Distance to province capital' is defined as the log of the distance to the commune's provincial capital, 'log Bomb load 1965-1973' is defined as the log of the total sum of bombs dropped on the commune between 1965 and 1973, 'log Potential yields (Rice)' is defined as the log of the potential low-input rice yields as defined by the FAO, 'log Potential yields (Banana)' is defined as the log of the potential low-input banana yields as defined by the FAO, 'log Potential yields (Coconut)' is defined as the log of the potential low-input coconut yields as defined by the FAO, 'log Potential yields (Maize)' is defined as the log of the potential low-input maize yields as defined by the FAO, 'Brick House' is a dummy variable equal to 1 if the respondent lives in a solid brick house, 'Education' is an indicator variable measuring the education of the respondent in the following categories: Never went to school (=0), literacy training (=1), incomplete primary school (=2), complete primary school (=3), lower secondary school (=4), higher secondary school (=5), and vocational training (=6), 'Ethnicity' is a dummy variable equal to 1 if the respondent is of Khmer ethnicity, 'Income' is an indicator variable measuring the family income of the respondent in the following categories: earns below 10$ (=0), between 11 and 25$ (=1), 26 and 50$ (=2), 50 and 100$ (=3), 100 and 150$ (=4), 150$ and 200$ (=5), or more (=6) in monthly income, 'Interview circumstance' is an indicator variable that denotes whether the respondent was alone (=0), with children (=1), with spouse (=2), other adults (=3), or a local official (=4), 'Male' is a dummy variable equal to 1 if the respondent is male, 'Urban' is a dummy variable equal to 1 if the respondent lives in an urban area, 'Year of birth' is variable measuring the respondent's year of birth, and 'Years of education' is the completed years of education of the respondent. The pre-genocide commune characteristics are derived from the U.S. Army map series L7016 covering Cambodia in 1970-1973 and digitized by the authors, except for 'log Bomb load 1965-1973', which is taken from the Cambodian Genocide Database, and 'Potential yields', which is extracted from FAO for the indicated varieties. Individual characteristics are obtained from the indicated surveys. The data sources are described in Section 3.

Table 3: Social Costs of Exposure

	(1) Trust	(2) Local civic participation	(3) Fear of violence	(4) Social costs index
State Repression	−0.120***	−0.074***	0.091***	0.171***
	(0.033)	(0.020)	(0.039)	(0.029)
	[0.028]	[0.018]	[0.034]	[0.026]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes	Yes
Observations	1,999	1,999	1,999	1,999

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Trust', 'Local civic participation', and 'Fear of violence' are standardized indices based on the individual variables displayed in Table A-8. 'Social costs index' is a standardized index combining Trust (reversed), Local civic participation (reversed), and Fear of violence so that higher values indicate greater social costs. Zone fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, pre-genocide commune characteristics, and individual characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Political Engagement

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Democratic attitudes			Electoral engagement					
	Support for pluralism	Voter informedness	Democratic attitudes index	Opposition vote share		Incumbent vote share		Turnout	
				National	Communal	National	Communal	National	Communal
State Repression	0.044***	0.070***	0.152***	4.872***	2.102***	−4.201***	−2.018***	2.870**	3.034**
	(0.008)	(0.024)	(0.029)	(0.798)	(0.623)	(0.792)	(0.740)	(1.422)	(1.582)
	[0.012]	[0.021]	[0.033]	[0.573]	[0.469]	[0.593]	[0.548]	[1.212]	[1.320]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes						
Election year				2013	2012 & 2017	2013	2012 & 2017	2013	2012 & 2017
Observations	1,999	1,999	1,999	1,621	3,230	1,621	3,230	1,621	3,230
Mean				37.512	33.683	54.782	61.664	77.274	75.427

Notes: The unit of observation is a survey respondent (columns 1-3) or a commune (columns 4-9). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Support for pluralism' and 'Voter informedness' are standardized indices based on the individual variables displayed in Table A-8. 'Democratic attitudes index' is a standardized index combining Support for pluralism and Voter informedness. 'Opposition vote share' is the vote share of the opposition alliance Cambodia National Rescue Party in the national election in 2013 and the communal elections in 2017 and computed as the combined votes of the 'Sam Rainsy Party' and the 'Human Rights Party' in the communal elections in 2012, 'Incumbent vote share' is the vote share of the long-term incumbent Cambodia People's Party, and 'Turnout' is the electoral turnout. 'Mean' denotes the mean in communes with less state repression. Zone fixed effects (columns 1-3) or province fixed effects (columns 4-9), survey-year or election-year fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics (columns 1-3) are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5: Local Governance

	(1) Land concession	(2) Forest loss log	(3) Forest loss share	(4) Illegal resource use log	(5) Illegal resource use share
State Repression	−0.051***	−0.627***	−0.026**	−0.052***	−0.031**
	(0.021)	(0.164)	(0.010)	(0.024)	(0.017)
	[0.019]	[0.135]	[0.011]	[0.020]	[0.013]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes
Survey-year fixed effects				Yes	Yes
Mean	0.199	4.237	0.120	0.442	0.358
Observations	1,621	1,621	1,621	2,467	2,467

Notes: The unit of observation is a commune in columns (1) - (3) and a commune-year in columns (4) and (5). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Land concession' is a dummy variable equal to 1 if the commune granted an economic land concession permit between 2001 and 2015. 'Forest loss (log)' is the log of hectares of forest lost between 2000 and 2018 as calculated by Hansen et al. (2013). 'Forest loss (share)' is the share of forest cover lost over the same period. 'Illegal resource use (log)' is the log of the sum of available resources exploited illegally in a village as reported in the Cambodia Socio-Economic Survey. 'Illegal resource use (share)' is the fraction of available resources exploited illegally. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: $^{*} p < 0.10$, $^{**} p < 0.05$, $^{***} p < 0.01$.

Table 6: Public Remembrance

	(1) Genocide Memorial	(2) Social costs of exposure — Social costs index	(3) Democratic attitudes index	(4) Opposition vote share	(5) Incumbent vote share	(6) Turnout	(7) Forest loss (next year) log	(8) Forest loss (next year) share	(9) Illegal resource use (next year) log	(10) Illegal resource use (next year) share
State Repression	0.022***	0.318***	0.272***	5.610***	−4.907***	5.795***	−0.263**	−0.005***	−0.098**	−0.076**
	(0.010)	(0.049)	(0.067)	(1.099)	(0.698)	(1.467)	(0.118)	(0.002)	(0.055)	(0.041)
	[0.008]	[0.048]	[0.052]	[0.792]	[0.948]	[0.870]	[0.128]	[0.002]	[0.049]	[0.030]
Rainy DoA		0.066**	0.055*	0.370	−0.783	3.239***	−0.005	−0.000	−0.036**	−0.029***
		(0.035)	(0.037)	(0.909)	(0.586)	(1.464)	(0.118)	(0.002)	(0.020)	(0.011)
		[0.026]	[0.028]	[0.805]	[0.985]	[0.951]	[0.033]	[0.001]	[0.017]	[0.011]
State Repression × Rainy DoA		−0.093***	−0.064***	−2.711***	2.537***	−4.834***	0.052**	0.002**	0.027*	0.022**
		(0.027)	(0.027)	(1.098)	(0.710)	(1.543)	(0.028)	(0.001)	(0.017)	(0.012)
		[0.030]	[0.025]	[0.860]	[0.985]	[1.125]	[0.026]	[0.001]	[0.015]	[0.011]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics		Yes	Yes							
Year fixed effects							Yes	Yes	Yes	Yes
Mean	0.035			37.512	54.782	77.274	4.237	0.120	0.442	0.358
Observations	1,621	1,999	1,999	1,621	1,621	1,621	27,557	27,557	2,467	2,467

Notes: The unit of observation is a commune (columns 1, 4-6), a survey respondent (columns 2-3), or a commune-year (columns 7-10). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Rainy DoA' is the number of rainy *Days of Anger* in the commune in the past 5 years, where a day is considered rainy if there was significant rain (above the historical mean). 'Genocide memorial' is a dummy variable equal to 1 if the commune has a memorial commemorating the genocide. 'Social costs index' is a standardized index as defined in Table 3, where higher values indicate greater social costs. 'Democratic attitudes index' is a standardized index as defined in Table 4. 'Opposition vote share' is the vote share of the opposition alliance Cambodia National Rescue Party in the national election in 2013. 'Incumbent vote share' is the vote share of the long-term incumbent Cambodia People's Party in the 2013 national election. 'Turnout' is the electoral turnout in the 2013 national election. 'Forest loss' and 'Illegal resource use' are defined as in Table 5, measured in the year following the *Day of Anger*. Province fixed effects (columns 1, 4-10) or zone fixed effects (columns 2-3), a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics (columns 2-3) are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: $^{*} p < 0.10$, $^{**} p < 0.05$, $^{***} p < 0.01$.

Table 7: Protest

	(1)	(2)	(3)	(4)
	Protests		Share protests	
	All communes	Communes in news	All communes	Communes in news
State Repression	0.005**	0.028***	0.003***	0.014***
	(0.002)	(0.007)	(0.001)	(0.006)
	[0.002]	[0.010]	[0.001]	[0.005]
Rainy DoA	0.000	0.001	0.000	0.000
	(0.001)	(0.002)	(0.000)	(0.002)
	[0.001]	[0.002]	[0.001]	[0.001]
State Repression × Rainy DoA	−0.001**	−0.008***	−0.001**	−0.0039***
	(0.001)	(0.002)	(0.000)	(0.002)
	[0.001]	[0.003]	[0.000]	[0.001]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Mean	0.002	0.010	0.001	0.005
Observations	15,290	3,620	15,290	3,620

Notes: The unit of observation is a commune-year. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Rainy Days of Anger' (DoA) is the number of rainy *Days of Anger* in the commune in the past 5 years, where a day is considered rainy if there was significant rain (above the historical mean). 'Protests' is an indicator for whether any protest-related RFA article is assigned to the commune in the four weeks following the *Day of Anger* (excluding May 20). 'Share protests' is the share of protest-related articles among all RFA articles assigned to the commune during the same window. Columns 1 and 3 include all communes; columns 2 and 4 restrict to communes ever mentioned in the news. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level: $^{*}\ p < 0.10$, $^{**}\ p < 0.05$, $^{***}\ p < 0.01$.

Table 8: Alternative Explanations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Population census		Cambodia Socio-Economic Survey						School census	
	log Population density	Sex ratio	Age	Years of education	log Farm value	log Consumption per capita	Migration in 1979	Market access	Poverty gap	School access
State Repression	0.015	−0.003	0.006	−0.094	−0.043	−0.002	0.004	0.012	−0.004	−0.000
	(0.038)	(0.003)	(0.100)	(0.067)	(0.277)	(0.016)	(0.011)	(0.026)	(0.004)	(0.023)
	[0.032]	[0.003]	[0.109]	[0.058]	[0.223]	[0.014]	[0.012]	[0.023]	[0.005]	[0.018]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Survey-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Mean	4.889	0.948	26.671	5.612	7.820	8.328	0.078		0.119	
Observations	3,184	3,184	427,827	393,423	80,228	89,022	80,105	4,435	1,470	1,593

Notes: The unit of observation is a commune (survey respondent) in columns 1, 2, and 8-10 (columns 3-7). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'log Population density' is the log of the total population per commune divided by commune area, 'Sex ratio' is the number of men over the number of women, 'Age' is the age of every individual in the Cambodia Socio-Economic Survey 1996-2016, 'Years of education' is the completed years of education for all individuals above age 5, 'log Farm value' is the log of the reported monetary household farm value (in Cambodian riel), 'log Consumption per capita' is the log of the monetary value (in Cambodian riel) of total household consumption over the last twelve months divided by the household size, and 'Migration in 1979' is a dummy variable equal to 1 if an individual who was alive during the genocide returned to the current residence in 1979 (and has not migrated since). 'Market access' is a standardized index of eight variables: distances to food shops, banks, agricultural stores, markets, general stores, and electricity and water coverage, as well as provision of public medical services (none of the individual variables are predicted by productivity during the Khmer Rouge period (1975–1977) as shown in Table B-6), 'Poverty gap' is the ratio by which the mean commune income of the poor falls below the poverty line, and 'School access' is a standardized index of seven variables: distance to the nearest school, whether the commune has a school, school income per capita, school enrollment rates, the number of teachers, the teacher-student ratio, and the mean number of classes (none of the individual variables are predicted by productivity during the during the Khmer Rouge period (1975–1977) as shown in Table B-6). 'Mean' denotes the mean in communes with less state repression. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: $^{*}\ p < 0.10$, $^{**}\ p < 0.05$, $^{***}\ p < 0.01$.

A   Appendix

A.1   Further Details on Aggregating Rainfall Data and Constructing the Productivity-Derived Measure of State Repression

This section offers more information on the methodology used to aggregate the rainfall data and create our productivity-derived measure of state repression. We also present results from various checks, demonstrating the robustness of our findings when employing alternative aggregation methods and productivity measures during the Khmer Rouge era.

A.1.1   Aggregating the Rainfall Data

To accurately determine and aggregate the impact of rainfall on local rice productivity during the Khmer Rouge period (1975–1977), we utilize detailed pre-Khmer Rouge topographic information from U.S. Army maps. These data contain the precise locations of rice fields in each commune across Cambodia from 1970-1973. We assign each rice field to the relevant rainfall grid cell observation(s) (see Appendix Figure A-2c) and aggregate this information at the commune level, weighting the rainfall by the share of the rice field covered by each grid cell.[1]

Using rice field locations captures rain's effect on local rice productivity more accurately than conventional approaches, which measure the impact on the commune as a whole by either assigning precipitation using the nearest rainfall cell from the commune centroid or weighting the rainfall by the share of each grid cell within the commune. Consider the map in Appendix Figure A-2c, displaying Cambodian communes (the black-bordered polygons) with overlaid rice fields (in green) and four rain grid cells (with blue borders). For instance, the large commune in the lower-left corner: if we assign rainfall based on its geographic center, we ascribe the precipitation of the lower-left quadrant, even though few rice fields are affected by rain in that area. Calculating the fraction of the commune in each grid cell only marginally improves the imputation, as the larger part of the commune is located in the lower-left quadrant. In contrast, using rice field locations attributes the rainfall of the lower-right quadrant. This approach better captures the effect of heavy precipitation on local rice production (rather than the commune as a whole) when communes span several grid cells.

In practice, the results remain consistent regardless of the method employed. Appendix Table A-4 reproduces the incidence of deadly violence results from Table 1 in the main text, comparing our preferred approach (Panel A) with the geometric average of each grid cell covered within the commune (Panel B). As illustrated, both methods yield very similar estimates.

A.1.2   Rainfall, Rice Productivity, and the Khmer Rouge Violence

As described in Section 4.2, Cambodia is among the most climate-vulnerable countries globally, with droughts and heavy floods having a strong negative effect on rice yields (see, e.g., Nesbitt, 1997b;

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[1]Since the geographical information on the rice fields (1970-1973) predates the productivity shock during the Khmer Rouge period (1975–1977), subsequent rainfall is unrelated to their specific location.

Eckstein et al., 2021). Excessive rain during the wet season (September to mid-November) is particularly harmful, affecting rice ecosystem productivity as sand-filled floods damage leaves and submerge crops, reducing plant density and leading to lower yields (Javier, 1997; Nesbitt, 1997b).

To construct productivity shocks, we calculate wet-season rainfall for each commune from 1951-2017, normalizing precipitation by the commune's historical mean and standard deviation (Figures 4a and 4b illustrate the relationship between rainfall and rice yields using the Khmer Rouge production targets and present-day productivity data). Using these local deviations, we link the productivity shocks to the Khmer Rouge era violence. Appendix Figure A-3a displays the non-parametric relationship between standardized rain (x-axis) in 1975–1977 and the number of bodies and mass graves uncovered in a commune (left and right y-axis).[2] Each year shows a similar pattern: wet-season precipitation monotonically decreases violence. Rainfall is averaged over 1975–1977 because the timing of labor movements and killings is not observed at a finer temporal resolution. To standardize this three-year average, we construct mutually exclusive three-year wet-season averages for each commune over 1951-2017 (1951-1953, 1954-1956, ..., 1975–1977, ...) and normalize the Khmer Rouge period average using the mean and standard deviation of these three-year averages. The resulting pooled non-parametric relationship is in Appendix Figure A-3b, showing a negative relationship between rainfall and atrocities. Notably, rainfall has a monotonic effect on violence incidence (both across individual years and on average), validating our reduced-form results interpretation, where less precipitation is linked to increased violence.

Finally, we map the productivity shocks to the actual decisions taken by the Khmer Rouge leadership. To meet nationally mandated production targets, provincial committees organized work brigades to harvest the fields and process the rice, deploying the labor force to the locations where productivity was higher, following Pol Pot's directive to "*attack wherever [we are] strongest*" (Chandler et al., 1988, p. 20). We approximate this within-province allocation by comparing relatively more and less productive communes within each province. Specifically, we classify a commune as higher predicted productivity if its standardized wet-season rainfall over 1975–1977, z_c^{KR}, falls below a provincial average, z_p^{KR} [equivalent to equation (1) in the main text]:

$$State\ Repression_c = \mathbb{I}\left[z_c^{KR} \leq z_p^{KR}\right]. \tag{A-1}$$

The indicator relies on the 1975–1977 average and does not require rainfall to be below the provincial average in each individual year. The provincial average z_p^{KR} is constructed from commune-level standardized values. In the baseline, we regress z_c^{KR} on province fixed effects and a second-order polynomial in latitude and longitude to net out geographic trends, using the fitted province component as z_p^{KR}. Results are similar using the simple province mean. As described in Section 4.1, these higher-productivity communes received, at the margin, more laborers and consequently greater exposure to state repression.

While the dummy specification eases interpretation, a possible concern is that our results are driven by the particular transformation of the data. To assess this, we consider three alternative formulations of our productivity-derived measure of state repression. First, we derive the continuous standardized version of equation (A-1):

$$SR_{z_c-z_p}^i = \frac{z_c^{KR} - z_p^{KR}}{\sigma_p^{KR}}, \tag{A-2}$$

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[2]The window starts in 1975, as earlier rain shocks have limited predictive power for yields in that period, and ends in 1977, as violence had largely disrupted collectivized agriculture by 1978 (Hiebert, 2017).

where the provincial average, z_p^{KR}, is subtracted from the commune-level standardized value, z_c^{KR}, and normalized by the province standard deviation, σ_p^{KR}, to predict the assignment of labor, and thus state repression SR^{KR}. In our second alteration we have:

$$SR_{z_c-z_p}^{ii} = \begin{cases} 1, & \text{if } SR_{z_c-z_p}^{KR} < -0.5 \text{ for higher-productivity communes;} \\ 0, & \text{if } SR_{z_c-z_p}^{KR} \in [-0.5, 0.5] \text{ for intermediate communes;} \\ -1, & \text{if } SR_{z_c-z_p}^{KR} > 0.5 \text{ for lower-productivity communes.} \end{cases} \tag{A-3}$$

Here, $SR_{z_c-z_p}^{ii}$, is a one standard deviation change based on the continuous measure in (A-2) to account for possible non-linearities. Finally, we explore the (continuous) standardized commune-level rainfall as displayed in Appendix Figure A-3b:

$$SR_{z_c}^{iii} \equiv z_c^{KR} = \frac{rain_c^{iii} - \overline{rain_c}}{\sigma_c}, \tag{A-4}$$

where $rain_c^{iii}$ is the commune-level rainfall in 1975–1977 and $\overline{rain_c}$ (σ_c) is the average (standard deviation of) rainfall in the commune in 1951-2017.

First, we establish that these four data transformations predict rice productivity. In Appendix Table A-5's top row, we reproduce our preferred measure from equation (A-1), followed by the three alternative formulations (all measures adjusted to reflect present-day productivity shocks during wet season). Across all four measures, more productive communes show a meaningful, statistically significant increase in rice yields using either year-to-year variation (columns 1 and 2) or the three-year average (columns 3 and 4). Importantly, the effect is concentrated during the wet season, as neither growing nor dry season shocks seem to affect yields (Table A-6).

With this established, we evaluate the importance of the rainfall measures concerning the paper's main findings in Appendix Table A-7. Considering we are examining multiple outcomes within each family of results, we present p-values adjusted using the false discovery rate. The first four columns show our baseline specification, followed by the three alternative measures (columns 5-16). We begin by demonstrating that findings on violence are not dependent on how we scale casualty indicators or construct the specific rainfall shock. Focusing on each measure's first and last column, most estimates show similar magnitude, and all but one have 95% confidence level precision or higher. For example, with our preferred measure, *State Repression$_c$*, rows 1 and 2 show 389 more dead bodies and 8 mass graves (adjusted p-values<0.01). This corresponds to 217 (5.6) more dead (mass graves) using the standardized measure demeaned at the province level, $SR_{z_c-z_p}^{i}$, when scaled by our binary baseline's productivity difference.[3] Similarly, the standardized commune-level rainfall, $SR_{z_c}^{iii}$, yields an additional 250 bodies and 5.8 mass graves (adjusted p-values<0.01) when scaling the estimate by a 0.24σ difference in average rain between more or less productive communes. Finally, we reach 347 (7) dead bodies (mass graves) when employing the non-linear $SR_{z_c-z_p}^{ii}$, *one SD*-measure. Essentially all of the more than 90 additional coefficients capturing the remaining outcomes yield qualitatively analogous results across different productivity formulations, with most being comparable in magnitude and level of significance.

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[3]To compare the effect size of the continuous measure with our baseline, we scale the estimate by the mean rainfall difference between more or less productive communes during the Khmer Rouge. The standardized productivity measure, $SR_{z_c-z_p}^{ii}$, for more productive communes is -0.695σ and 0.705σ for less productive communes. We use the 1.4σ difference to normalize the estimates of dead bodies (155) and mass graves (4), yielding 217 (5.6) more dead (mass graves).

A.2 Figures

Background and Measure Construction

Figure A-1: National Production Targets of the Khmer Rouge Leadership

TABLE 3

PLAN FOR RICE PRODUCTION THROUGHOUT THE COUNTRY DURING THE PERIOD 1977 - 1980

Zone and Region	1977	1978	1979	1980	Total For Four Years
1. NW	1,620,000T	1,900,000T	2,250,000T	2,600,000T	8,370,000T
2. East	1,290,000T	1,510,000T	1,510,000T	1,620,000T	5,830,000T
3. SW	1,140,000T	1,210,000T	1,320,000T	1,440,000T	5,110,000T
4. North	695,000T	758,000T	935,000T	912,000T	3,200,000T
5. West	432,000T	450,000T	480,000T	510,000T	1,872,000T
6. NE	73,000T	78,000T	84,000T	90,000T	335,000T
7. Region 106	306,000T	336,000T	366,000T	384,000T	1,392,000T
8. Region 103	42,000T	48,000T	54,000T	60,000T	204,000T
9. Centro Armed Forces	18,000T	24,000T	30,000T	36,000T	108,000T
10. Zone Armed Forces	39,000T	54,000T	66,000T	90,000T	249,000T
Total:	5,555,000T	6,268,000T	6,995,000T	7,742,000T	26,560,000T[a]

[a] Total rice produced. Total production for fields harvested twice per year is figured as 6 tons per hectare; ordinary fields harvested once per year is estimated at 3 tons per hectare.

Notes: National rice production targets across the different regions of Cambodia (Chandler et al., 1988).

Figure A-2: Satellite Image, U.S. Army Map L7016, and Rainfall Assignment

(a) Satellite Image

(b) L7016 Map

(c) Aggregating the Rainfall Data
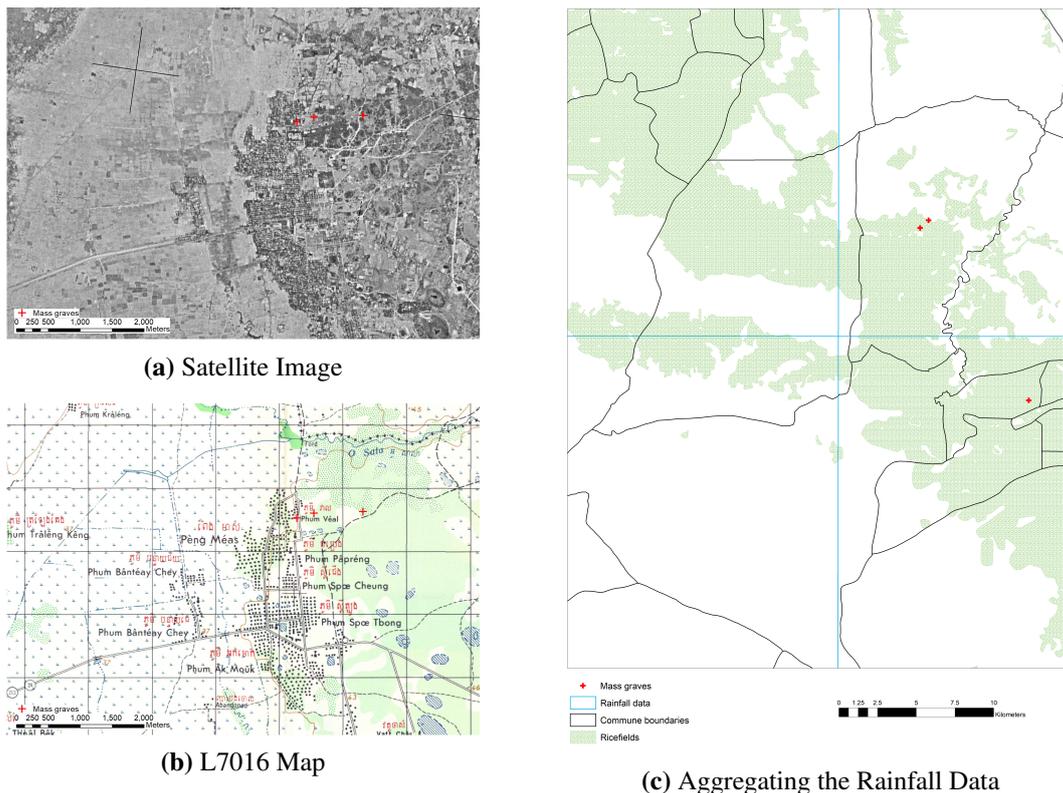
Notes: The 1975 satellite image (a) and topographic map (b) depict the same location in Spueu commune, Kampong Cham province, illustrating the U.S. Army map series L7016 1970-1973's geographic detail. Figure (c) demonstrates the geographic interpolation between pre-existing rice fields (green), communes (solid black lines), and rainfall grid cell observations (blue squares). We allocate rainfall observations (in this case top-left, top-right, bottom-left, and bottom-right quadrant) to each commune based on rice field locations. For instance, the large commune in the lower-left corner has most of its area in the bottom-left rainfall quadrant, but virtually all rice fields lie in the bottom-right quadrant. To account for this, we assign more weight to the bottom-right rain grid cell, using rice field location rather than the conventional method of a geometric average within a commune (which would assign more weight to the bottom-left quadrant).

Figure A-3: Standardized Rainfall and Deadly Violence

(a) Standardized Rainfall by Year

(b) Standardized Rainfall During the Khmer Rouge Period (1975–1977)
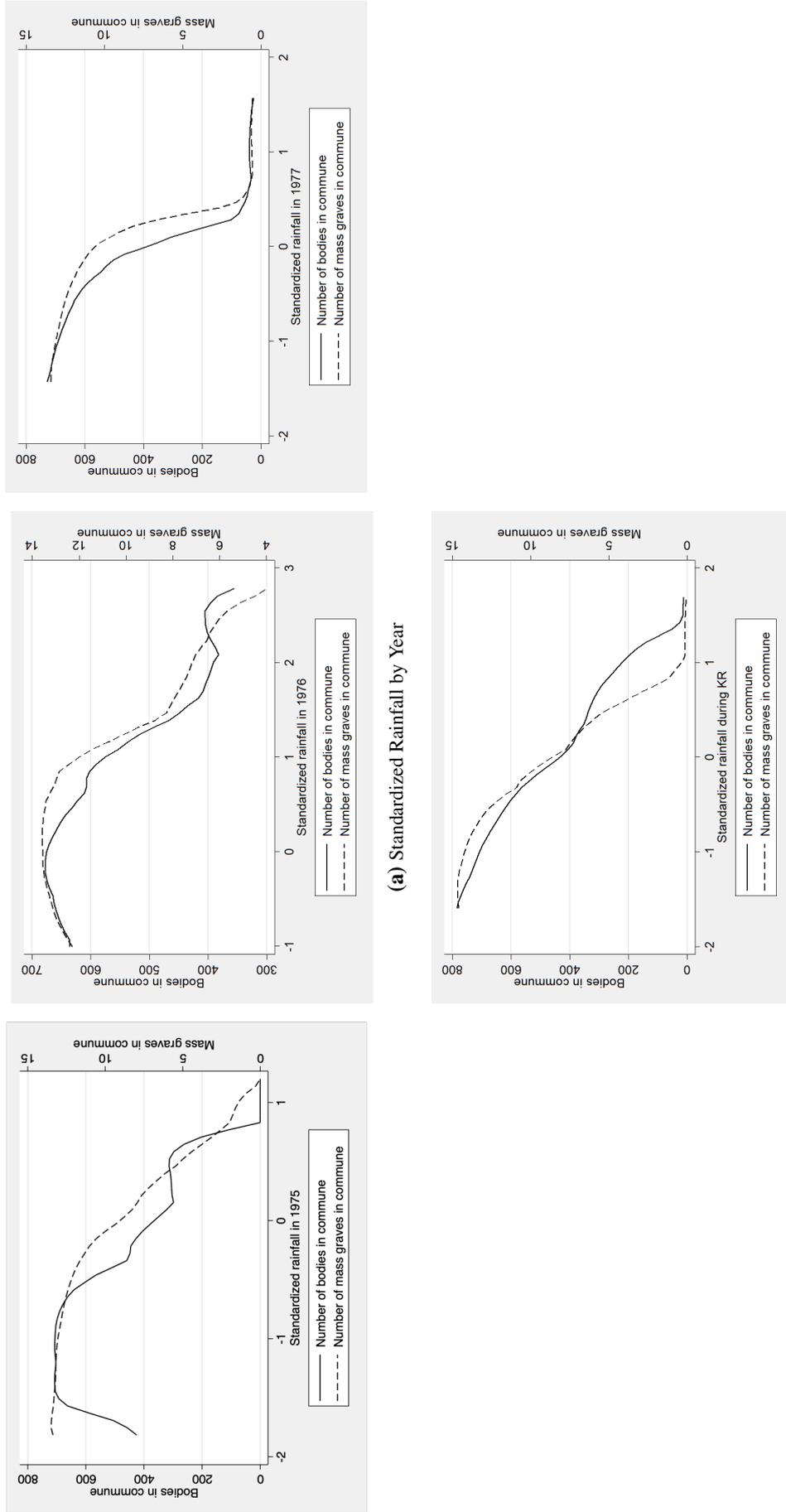
Notes: The upper panel show the relationship between standardized rainfall in 1975 (left), 1976 (middle), and 1977 (right) and the number of dead bodies (solid line) and mass graves (dashed line) in each commune. The lower panel shows the same relation, using the average standardized rainfall distribution during the Khmer Rouge period (1975–1977). More rainfall, as indicated by positive values, is associated with fewer bodies and mass graves in each year (upper panel) and in the aggregate (lower panel).

Figure A-4: Placebo Estimates for the Standardized Violence Index Surrounding the Khmer Rouge Period
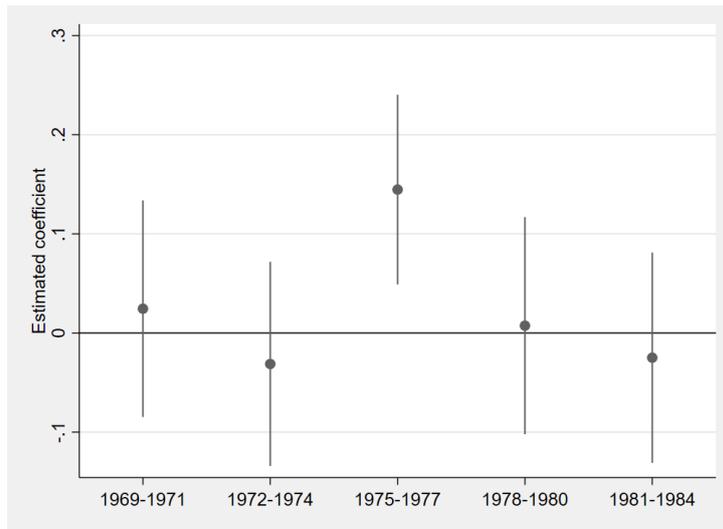
Notes: The figure displays the estimated coefficients with 95% confidence intervals of wet-season rainfall on the standardized violence index for each three-year interval surrounding the Khmer Rouge period (1975–1977).

Figure A-5: Sensitivity to Influential Questions in the z-score Index Variables
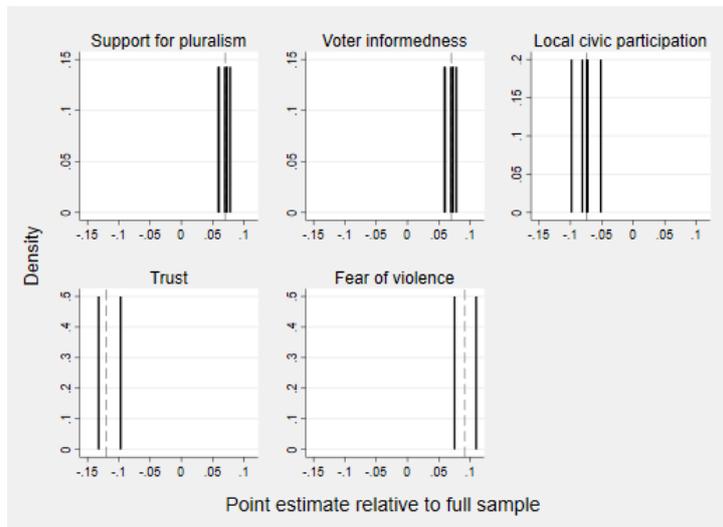
Notes: The histograms show the distribution of the effect of state repression during the Khmer Rouge period (1975–1977) when questions included in the z-score index variables are dropped one by one. The dotted line represents the baseline estimate.

Figure A-6: Sensitivity to Influential Communes
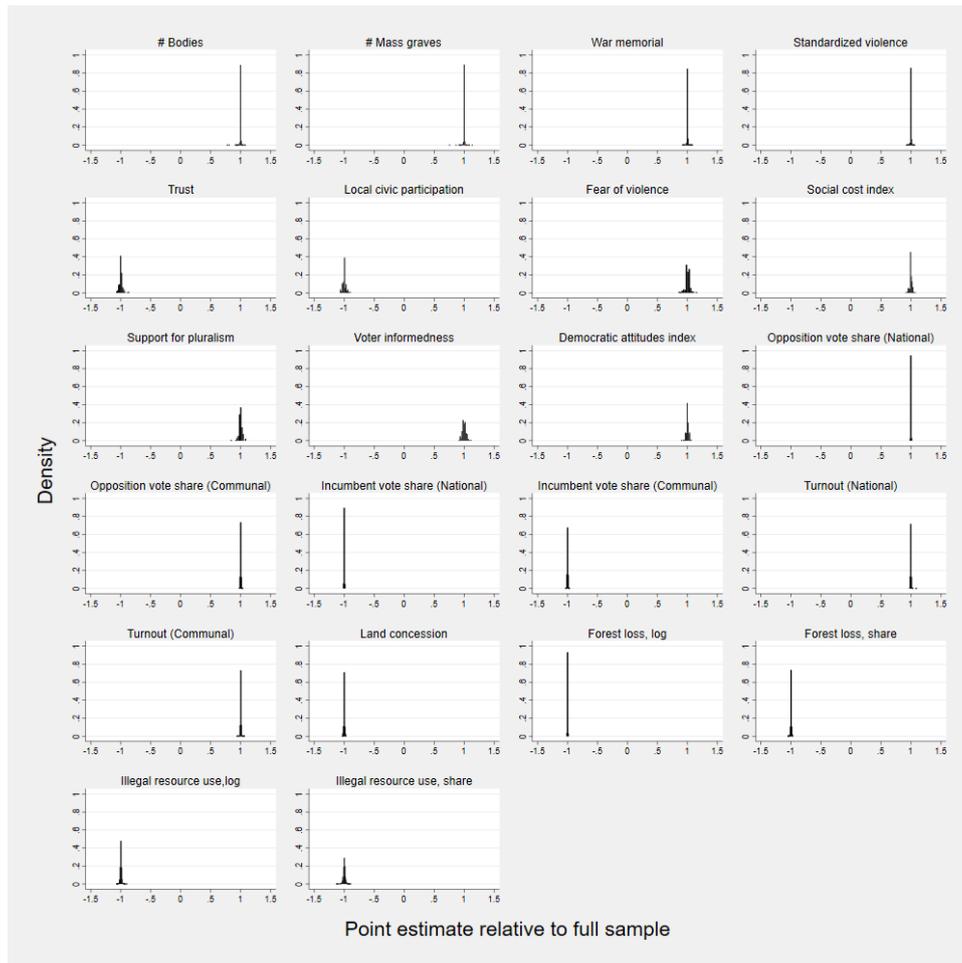
Notes: The histograms show the distribution of the effect of the productivity shock during the Khmer Rouge period (1975–1977) when communes are dropped one by one. The coefficients are plotted relative to the full sample point estimate.

Figure A-7: Age Distribution of Khmer Rouge Survivors and the Population by Level of Repression

(a) Age Distribution of Survivors   **(b)** Age Distribution of Population
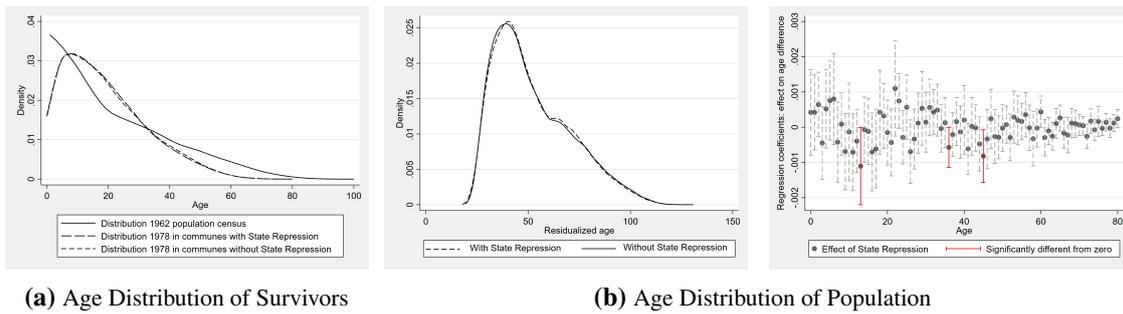
Notes: Figure (a) plots the national distribution of age in the 1962 census (solid line) and in 1978 for people who were still alive in the Cambodia Socio-Economic Survey 1996-2016. The dashed line represents the age distribution of residents in communes that had more state repression during the Khmer Rouge period (1975–1977), and the dotted line communes that had less. Figure (b) plot the age distribution of the current population in the Cambodia Socio-Economic Survey 1996-2016 by commune productivity. The histogram (left) shows the residualized age distribution with the average added to the residuals to ease readability. The graph (right) plots estimates with 95% confidence intervals from separate regressions on the age difference between communes for every age in the range 0-80. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977).

Figure A-8: Age Distribution of the Population by Gender and Level of Repression

(a) Female

(b) Male
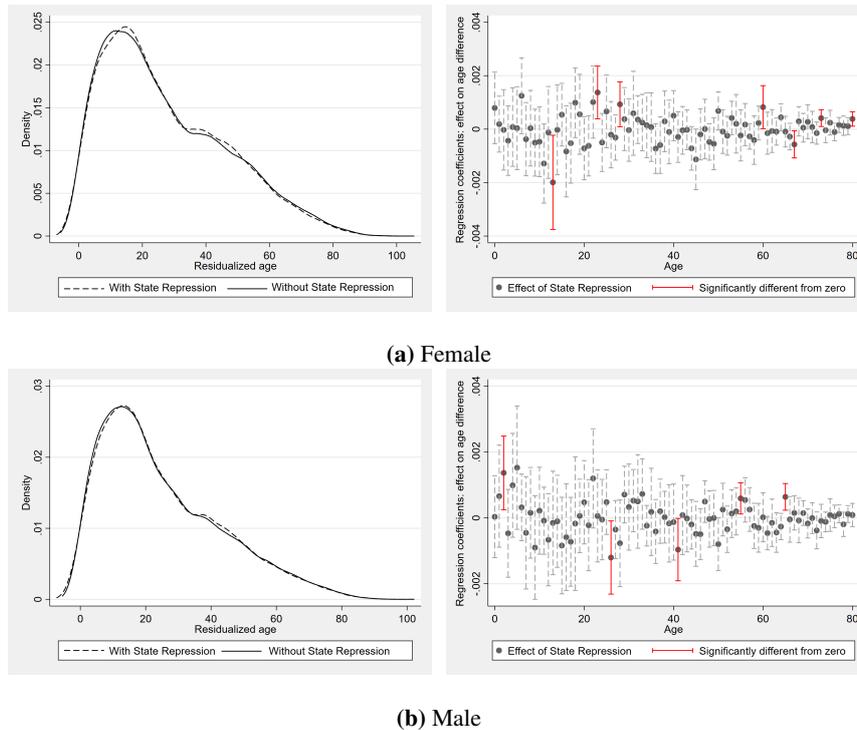
Notes: The figures plot the age distribution of the current population in the Cambodia Socio-Economic Survey 1996-2016 by gender and commune productivity. The histograms (left) show the residualized age distribution with the average added to the residuals to ease readability. The graphs (right) plot estimates with 95% confidence intervals from separate regressions on the age difference between communes for every age in the range 0-80. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977).

Social Costs of Exposure

Figure A-9: Placebo Estimates for the Social Cost of Exposure
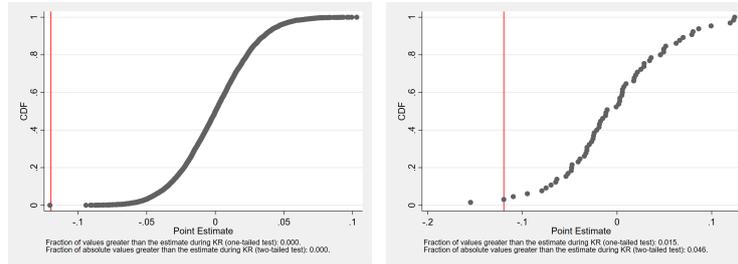
(a) Trust
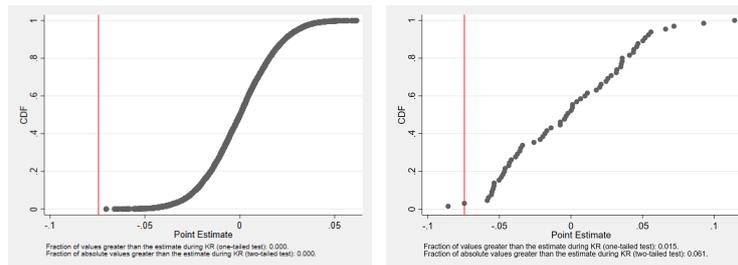
(b) Local civic participation
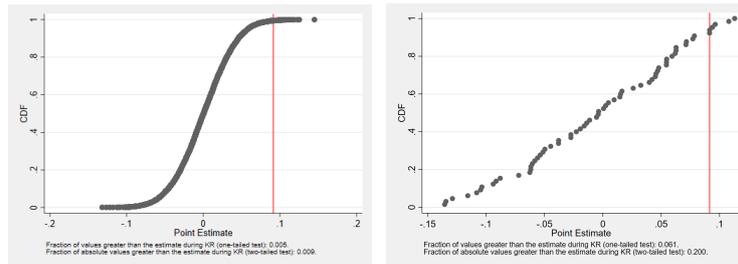
(c) Fear of violence
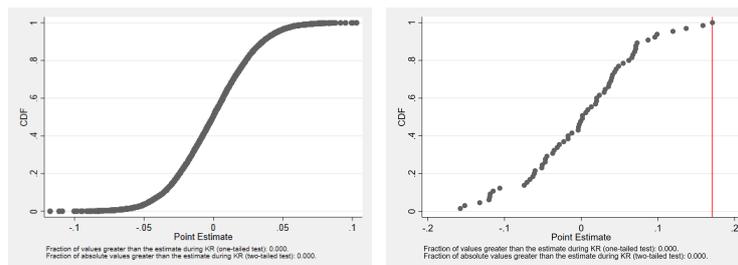
(d) Social costs index

Notes: The graphs show the main effect of state repression during the Khmer Rouge era compared to the cumulative distribution of estimates of an alternative production shock in placebo years. The red line indicates the estimated coefficient in the period 1975–1977. Under every graph, two statistics denoting the p-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.

Political Engagement

Figure A-10: Placebo Estimates for the Political Engagement: Democratic Attitudes

(a) Support for pluralism

(b) Voter informedness

(c) Democratic attitudes index

Notes: The graphs show the main effect of state repression during the Khmer Rouge era compared to the cumulative distribution of estimates of an alternative production shock in placebo years. The red line indicates the estimated coefficient in the period 1975–1977. Under every graph, two statistics denoting the *p*-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.

Figure A-11: Placebo Estimates for the Political Engagement: National Electoral Engagement

(a) Opposition vote share

(b) Incumbent vote share

(c) Turnout

Notes: The graphs show the main effect of state repression during the Khmer Rouge era compared to the cumulative distribution of estimates of an alternative production shock in placebo years. The red line indicates the estimated coefficient in the period 1975–1977. Under every graph, two statistics denoting the *p*-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.

Figure A-12: Placebo Estimates for the Political Engagement: Communal Electoral Engagement

(a) Opposition vote share

(b) Incumbent vote share

(c) Turnout

Notes: The graphs show the main effect of state repression during the Khmer Rouge era compared to the cumulative distribution of estimates of an alternative production shock in placebo years. The red line indicates the estimated coefficient in the period 1975–1977. Under every graph, two statistics denoting the *p*-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.

Local Governance

Figure A-13: Placebo Estimates for Local Governance

(a) Land concessions

(b) log Forest loss

(c) Share Forest loss

(d) log illegal resource use

(e) Share Illegal resource use

Notes: The graphs show the main effect of state repression during the Khmer Rouge era compared to the cumulative distribution of estimates of an alternative production shock in placebo years. The red line indicates the estimated coefficient in the period 1975–1977. Under every graph, two statistics denoting the *p*-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.

Public Remembrance

Figure A-14: Placebo Estimates Public Remembrance: Social Costs and Political Engagement

(a) Social cost index

(b) Democratic attitudes index

(c) Opposition vote share

(d) Incumbent vote share

(e) Turnout

Notes: The graphs show the point estimates from interaction of *State Repression* during the Khmer Rouge era with rainy *Days of Anger*, compared to the cumulative distribution of estimates of an alternative production shock in placebo years interacted with rainy *Days of Anger*. The red line indicates the coefficient when the shock in the period 1975–1977 is interacted with rainy *Days of Anger*. Under every graph, two statistics denoting the *p*-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.

Figure A-15: Placebo Estimates Public Remembrance: Local Governance
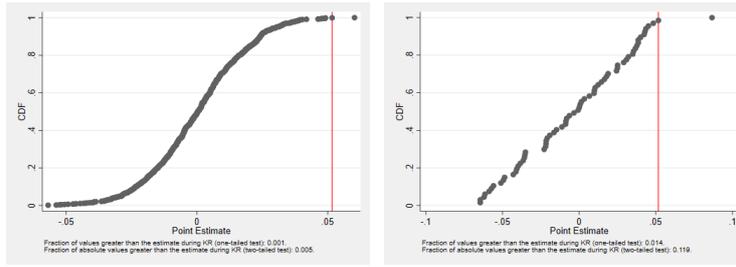
(a) log Forest loss next year
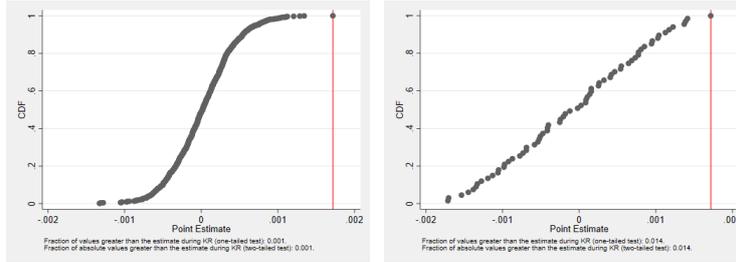
(b) Share Forest loss next year
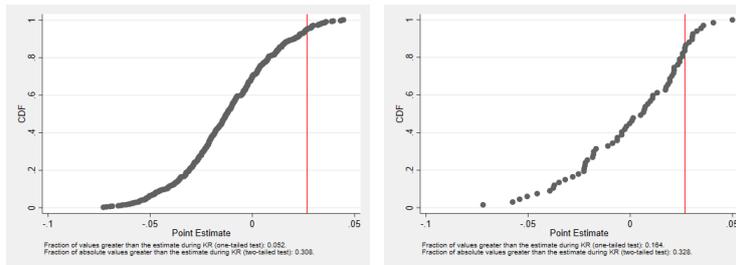
(c) log Illegal resource use next year
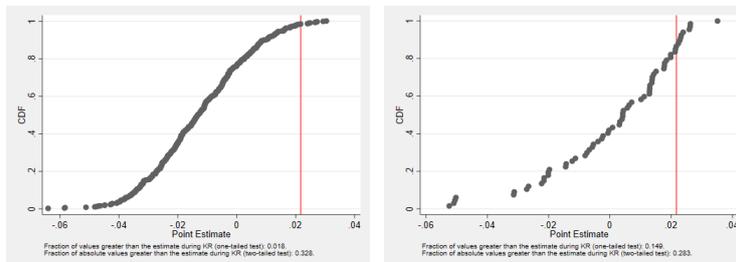
(d) Share Illegal resource use next year

Notes: The graphs show the point estimates from interaction of *State Repression* during the Khmer Rouge era with rainy *Days of Anger*, compared to the cumulative distribution of estimates of an alternative production shock in placebo years interacted with rainy *Days of Anger*. The red line indicates the coefficient when the shock in the period 1975–1977 is interacted with rainy *Days of Anger*. Under every graph, two statistics denoting the *p*-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.

Protest

Figure A-16: Placebo Estimates for Protest
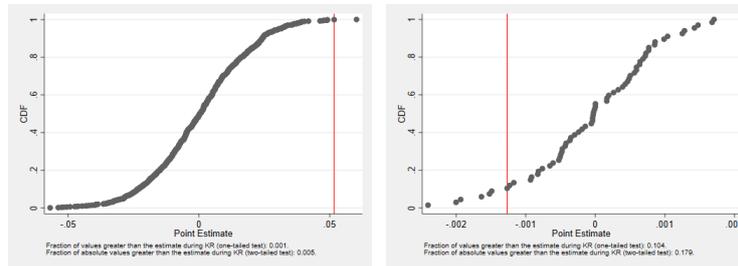
(a) Protest: all communes
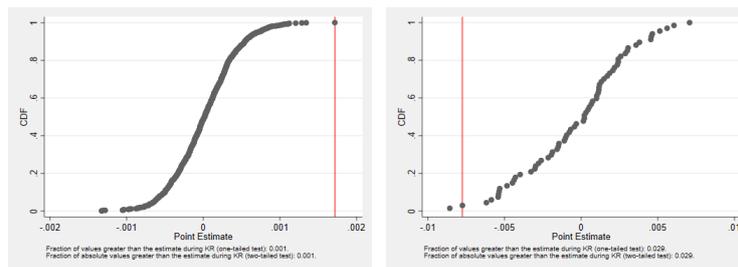
(b) Protest: communes in news
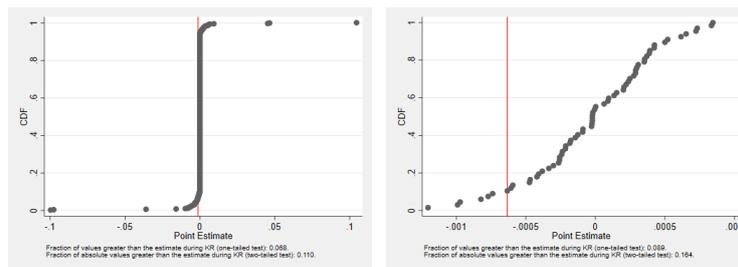
(c) Share protest: all communes
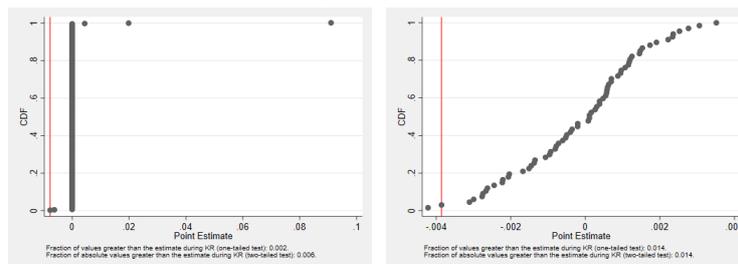
(d) Share protest: communes in news

Notes: The graphs show the point estimates from interaction of *State Repression* during the Khmer Rouge era with rainy *Days of Anger*, compared to the cumulative distribution of estimates of an alternative production shock in placebo years interacted with rainy *Days of Anger*. The red line indicates the coefficient when the shock in the period 1975–1977 is interacted with rainy *Days of Anger*. Under every graph, two statistics denoting the *p*-value of a one- and two-sided test are presented. The randomization procedure (left) assigns 50% of the communes within a province to above-average standardized productivity using 10,000 draws. In the placebo estimations (right), assignment is based on whether standardized wet-season rainfall in each three-year window from 1951-2017 is below the provincial average. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions.
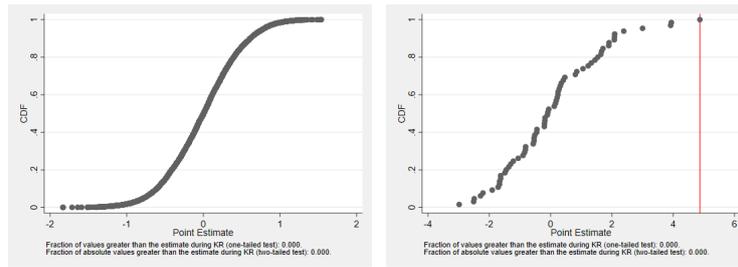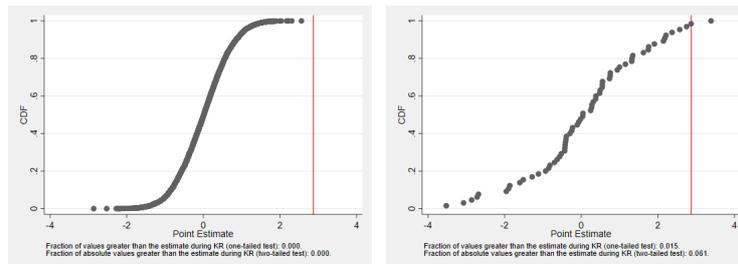
A.3 Tables

Summary Statistics

Table A-1: Summary Statistics, Main Outcomes

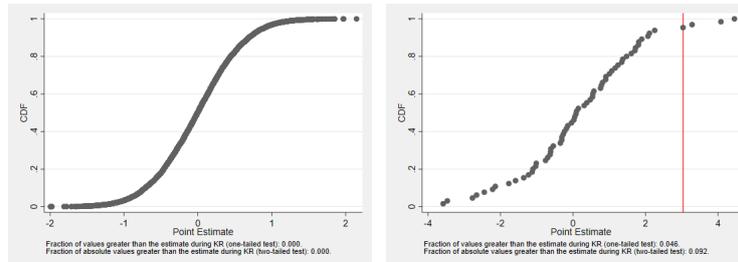|	(1)	(2)
	Mean	S.D.
Incidence of Deadly Violence		
#Bodies	601.316	3737.995
#Mass graves	11.701	76.382
Genocide memorial	0.044	0.205
Voting Behavior		
Vote share CNRP (opposition), national election	39.678	16.156
Vote share CNRP (opposition), communal elections	34.751	13.208
Vote share CPP (incumbent), national election	52.804	14.930
Vote share CPP (incumbent), communal elections	60.528	14.623
Turnout, national election	78.863	17.760
Turnout, communal elections	77.123	19.550
Community and State Avoidance		
Annual community contributions	279.535	631.480
Annual taxes paid	26.243	154.687
Working for the government	0.081	0.273
Working for the foreign private sector	0.087	0.282
Local Governance		
Land concession	0.159	0.365
log Forest loss	3.806	3.163
Illegal logging	0.263	0.440
Illegal overuse	0.315	0.465
Mobilization		
Protest	0.002	0.045
Share protest	0.001	0.022
Rainfall		
Average rainfall, 1975–1977	131.802	20.454
Standardized rainfall, 1975–1977	−0.663	0.714
Historical rainfall mean, 1951-2017	146.775	15.637
Historical rainfall standard deviation, 1951-2017	20.946	4.052
Historical rainfall on May 20, 1951-2017	4.733	0.986

Notes: The unit of observation is a commune, except for the variables measuring community and state avoidance where it is a survey respondent. Data on violence come from the Cambodian Genocide Database. Data on voting behavior are obtained from the National Election Committee and Open Development Cambodia. Data measuring community and state avoidance are taken from the Cambodia Socio-Economic Survey. For land concessions and deforestation, 'Land concession' comes from LICODHO and 'log Forest loss' is provided by Hansen et al. (2013). 'Illegal logging' and 'Illegal overuse' are obtained from the Cambodia Socio-Economic Survey. Rainfall data (in millimeters) are derived from the APHRODITE Water Resources project and NOAA Climate Prediction Center. The data sources are described in Section 3, and the variables are defined in the notes of each respective table. Additional summary statistics are reported in Tables A-2, A-3, and A-8.

Table A-2: Summary Statistics, Additional Outcomes from Various Sources

	(1) Mean	(2) S.D.
Incidence of Deadly Violence		
# Bodies per capita	2.362	14.731
# Bodies per sqkm	24.489	273.569
# Mass graves per capita	0.043	0.288
# Mass graves per sqkm	0.309	2.307
log(#Bodies)	0.823	2.374
log(#Bodies per capita)	0.231	0.798
log(#Bodies per sqkm)	0.392	1.273
log(#Mass graves)	0.379	1.201
log(#Mass graves per capita)	0.028	0.140
log(#Mass graves per area)	0.087	0.381
I[#Bodies>500]	0.075	0.263
Census Data, 1998 and 2008		
log(Population ≤ 15, 1998)	7.828	0.690
log(Population ∈[10,15], 1998)	7.303	0.753
log(Population ∈[15,64], 1998)	8.027	0.720
log(Population Density, 1998)	4.862	1.738
log(Population ≤ 15, 2008)	7.726	0.673
log(Population ∈[10,15], 2008)	7.382	0.711
log(Population ∈[15,64], 2008)	8.275	0.737
log(Population Density, 2008)	4.938	1.637
School Census, 1997-2002		
Poverty rate (Head Count Ratio)	0.402	0.216
Poverty gap	0.124	0.102
Poverty severity	0.054	0.061
Gini coefficient	0.301	0.069
Distance to school	1.344	1.555
# Schools in commune	6.453	3.912
Director with degree	0.002	0.039
log School income per capita	8.550	0.917
Enrollment rate	40.760	20.347
# Teachers	53.943	54.906
Student-teacher-ratio	41.383	28.833
Number of classes	7.970	4.884
Light Density Data, 1992-2013		
Maximum night-time light	4.121	12.167
Any night-time light in 2013	0.403	0.491
Night-time light in 2013	3.720	12.097
Market Access, 2012		
Market density	0.406	0.707
Accessibility of the nearest health facility	0.667	0.715
Radio station in commune	0.902	0.298

Notes: Data on violence come from the Cambodian Genocide Database. Since the log is undefined at zero, we add one casualty to all observations in the data when using the logged outcome variables. Census data include information from the population census. The school census is taken from the Education Management Information System at the Ministry of Education, Youth, and Sports. The light density data are retrieved from NCEI-NOAA. The information on market access comes from Open Development Cambodia. The data sources are described in Section 3, and the variables are defined in the notes of each table.

Table A-3: Summary Statistics, Additional Outcomes from the CSES 1996-2016

	(1) Mean	(2) S.D.
Individual-level data		
Age	26.387	19.146
Years of Education	5.370	5.246
Returned in 1979/1980	0.117	0.321
Returned in 1979	0.080	0.271
Returned after displacement	0.032	0.176
In village during KR	0.190	0.392
Can Write	0.706	0.456
Can Read	0.732	0.443
Speaking English	0.051	0.220
Speaking French	0.015	0.120
Lower secondary school	0.017	0.128
Upper secondary school	0.023	0.151
Bachelor	0.016	0.126
Household-level data		
log Farm value	8.513	7.983
log Size of farm	8.379	1.006
Rooms per capita	0.373	0.285
log Consumption per capita	8.379	1.006
log Food expenditure per capita	7.891	0.887
log Non-food expenditure per capita	6.776	1.638
log Total expenditure per capita	8.292	1.046
log Alcohol & tobacco expenditure	1.125	5.979
Village-level data		
Distance to food store	5.840	11.558
Distance to bank	9.739	14.232
Distance to extension worker	16.798	23.301
Distance to market	6.834	10.290
Distance to agricultural market	6.654	11.197
% Pop with electricity	0.374	0.432
% Pop with piped water	0.230	0.385
% Pop with public hospital	0.141	0.348

Notes: All data are taken from the Cambodia Socio-Economic Survey 1996-2016. The data source is described in Section 3, and the variables are defined in the notes of each table.

Measure Construction and Validation

Table A-4: Incidence of Deadly Violence and Alternative Rainfall Aggregation Methods

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	#Bodies		#Mass graves		Genocide memorial		Standardized violence	
Panel A: Rice field assignment of rainfall								
State Repression	377.914***	388.624***	8.501***	8.001***	0.020***	0.022***	0.127***	0.135***
	(171.222)	(150.530)	(3.529)	(3.188)	(0.011)	(0.010)	(0.045)	(0.043)
	[141.584]	[138.740]	[2.909]	[2.847]	[0.008]	[0.008]	[0.033]	[0.031]
Panel B: Geometric assignment of rainfall								
State Repression	381.349***	386.931***	8.687***	8.140***	0.020***	0.023***	0.130***	0.136***
	(167.367)	(148.682)	(3.548)	(3.180)	(0.011)	(0.011)	(0.045)	(0.043)
	[136.316]	[136.097]	[2.944]	[2.854]	[0.008]	[0.008]	[0.032]	[0.031]
Pre-genocide commune characteristics		Yes		Yes		Yes		Yes
Observations	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621

Notes: The unit of observation is a commune. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). '#Bodies' is the number of dead bodies recovered after the genocide, '#Mass graves' is the number of mass graves recovered after the genocide, and 'Genocide memorial' is a dummy variable equal to 1 if the commune has a memorial commemorating the genocide. 'Standardized violence' is the standardized index of '#Bodies', '#Mass graves', and 'Genocide memorial', accounting for the covariance between these variables. Panel A reproduces the results from Table 1 in the main text where we assign and aggregate rainfall using the locations of the rice fields in each commune in the pre-Khmer Rouge period. Panel B presents the same result when we use the geometric average of each rainfall grid cell covered within the commune. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-5: Rice Yields and Alternative Production Shocks

	(1)	(2)	(3)	(4)
		Standardized yields		
	Shock in survey year		Average over three previous years	
State Repression	0.076***	0.061***	0.077**	0.058**
	(0.029)	(0.025)	(0.036)	(0.030)
	[0.019]	[0.018]	[0.032]	[0.028]
$SR^{i}_{z_c - z_p}$	0.040***	0.030***	0.041***	0.026**
	(0.015)	(0.013)	(0.017)	(0.013)
	[0.012]	[0.010]	[0.014]	[0.013]
$SR^{ii}_{z_c - z_p}$	0.047***	0.039***	0.049**	0.033*
	(0.017)	(0.015)	(0.021)	(0.017)
	[0.016]	[0.015]	[0.019]	[0.018]
$SR^{iii}_{z_c}$	0.038***	0.032**	0.056***	0.041*
	(0.012)	(0.012)	(0.019)	(0.022)
	[0.013]	[0.013]	[0.022]	[0.022]
Pre-genocide commune characteristics		Yes		Yes
Observations	3,738	3,738	3,738	3,738

Notes: The unit of observation is a commune (yields are calculated at the individual level and then aggregated to the commune). Every cell constitutes a separate regression of the standardized yields on the dependent variable in the header. In columns 1-2, productivity in the survey year is used, while columns 3 and 4 use the average over the three previous years. The dependent variable 'Standardized yields' indicates standardized yields across Cambodia in a given period, and the point estimates can be interpreted as standard deviation increases in productivity. One standard deviation is 3.213. 'Productive during wet season' is the analogue of the *State Repression* measure as defined in equation (1) and is a dummy variable equal to 1 if the commune experienced above-average standardized province productivity in the survey year (columns 1-2) or calculated as an average of the previous three years (columns 3-4). '$SR^{i}_{z_c-z_p}$'–'$SR^{iii}_{z_c}$' are alternative formulations of productivity as discussed in equations (A-2)–(A-4). These formulations predict local productivity, which in turns predicts state repression during the Khmer Rouge era. The regression specification is identical to equation (3) outlined in the main text with the addition of survey-year fixed effects and *State Repression* replaced with each productivity measure as defined above. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-6: Rice Yields and Alternative Production Shocks across Different Seasons

	(1)	(2)	(3)	(4)
		Standardized yields		
State Repression:				
Productive during wet season	0.061***			0.061***
	(0.025)			(0.027)
	[0.018]			[0.018]
Productive during growing season		−0.002		−0.011
		(0.024)		(0.029)
		[0.035]		[0.037]
Productive during dry season			0.024	0.021
			(0.032)	(0.032)
			[0.038]	[0.039]
$SR^{i}_{z_c - z_p}$:				
Productive during wet season	0.030***			0.029***
	(0.013)			(0.013)
	[0.010]			[0.009]
Productive during growing season		0.006		−0.001
		(0.012)		(0.013)
		[0.016]		[0.016]
Productive during dry season			0.016	0.014
			(0.014)	(0.014)
			[0.017]	[0.017]
$SR^{ii}_{z_c - z_p}$:				
Productive during wet season	0.039***			0.038***
	(0.015)			(0.015)
	[0.015]			[0.013]
Productive during growing season		0.007		−0.002
		(0.017)		(0.018)
		[0.023]		[0.023]
Productive during dry season			0.026	0.024
			(0.021)	(0.021)
			[0.023]	[0.024]
$SR^{iii}_{z_c}$:				
Productive during wet season	0.032**			0.031***
	(0.012)			(0.012)
	[0.013]			[0.012]
Productive during growing season		0.010		0.004
		(0.016)		(0.016)
		[0.021]		[0.019]
Productive during dry season			0.012	0.010
			(0.012)	(0.012)
			[0.014]	[0.013]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Observations	3,738	3,738	3,738	3,738

Notes: The unit of observation is a commune (yields are calculated at the individual level and then aggregated to the commune). Every column and panel constitutes a separate regression of the standardized yields in the survey year. The dependent variable 'Standardized yields' indicates standardized yields across Cambodia in a given period, and the point estimates can be interpreted as standard deviation increases in productivity. One standard deviation is 3.213. We include three seasons as defined by Nesbitt (1997a): wet season: September, October, and the first two weeks of November (mean rainfall 145.016mm); growing season: May and June (mean rainfall 128.657mm); dry season: December until March (mean rainfall 11.167mm). 'Productive during wet season' is the analogue of the *State Repression* measure as defined in equation (1) and is a dummy variable equal to 1 if the commune experienced above-average standardized province productivity in the survey year (columns 1-2) or calculated as an average of the previous three years (columns 3-4). '$SR^{i}_{z_c-z_p}$'–'$SR^{iii}_{z_c}$' are alternative formulations of productivity as discussed in equations (A-2)–(A-4). These formulations predict local productivity, which, in turn, predicts state repression during the Khmer Rouge period (1975–1977). The regression specification is identical to equation (3) outlined in the main text with the addition of survey-year fixed effects and *State Repression* replaced with each productivity measure as defined above. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-7: Main Findings and Alternative Production Shocks and Multiple Hypothesis Testing

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	State Repression				$SR_{z_{ic}-z_{ip}}$				$SR^i_{z_{ic}-z_{ip}}$				$SR^{ii}_{z_{ip}}$			
	beta	s.e.	p-value	FDR adj. p-value	beta	s.e.	p-value	FDR adj. p-value	beta	s.e.	p-value	FDR adj. p-value	beta	s.e.	p-value	FDR adj. p-value
Deadly Violence Indicators																
#Bodies	388.624	138.740	0.005	0.007	155.189	50.585	0.002	0.007	347.416	120.825	0.004	0.003	1043.625	382.410	0.006	0.007
#Mass graves	8.001	2.847	0.005	0.007	3.929	1.531	0.010	0.012	6.971	2.369	0.003	0.003	24.186	6.862	0.000	0.002
Genocide memorial	0.022	0.008	0.004	0.007	0.012	0.004	0.001	0.007	0.012	0.005	0.011	0.006	0.033	0.018	0.065	0.025
Bodies per capita	1.266	0.461	0.006	0.007	0.609	0.211	0.004	0.008	1.229	0.324	0.000	0.001	3.602	1.196	0.003	0.005
Bodies per sqkm	7.517	4.913	0.126	0.019	2.879	2.416	0.233	0.091	5.578	4.660	0.231	0.017	32.333	9.932	0.001	0.004
Mass graves per capita	0.026	0.013	0.055	0.018	0.014	0.008	0.076	0.047	0.023	0.009	0.015	0.006	0.079	0.033	0.015	0.012
Mass graves per sqkm	0.261	0.077	0.001	0.003	0.117	0.040	0.003	0.008	0.191	0.063	0.003	0.003	0.682	0.176	0.000	0.001
log Bodies	0.184	0.076	0.015	0.009	0.081	0.046	0.075	0.047	0.193	0.055	0.000	0.001	0.323	0.207	0.119	0.036
log Bodies, per capita	0.073	0.024	0.002	0.006	0.029	0.015	0.049	0.043	0.072	0.018	0.000	0.001	0.153	0.064	0.017	0.012
log Bodies, per sqkm	0.148	0.039	0.000	0.001	0.070	0.022	0.001	0.007	0.139	0.031	0.000	0.001	0.306	0.104	0.003	0.005
log Mass graves	0.110	0.036	0.002	0.006	0.043	0.024	0.069	0.047	0.089	0.026	0.001	0.001	0.244	0.114	0.033	0.019
log Mass graves, per capita	0.015	0.006	0.014	0.009	0.007	0.004	0.052	0.043	0.012	0.004	0.004	0.003	0.043	0.015	0.003	0.005
log Mass graves, per sqkm	0.054	0.012	0.000	0.001	0.024	0.007	0.001	0.007	0.038	0.009	0.000	0.001	0.134	0.028	0.000	0.001
Body count ≥ 500	0.024	0.009	0.007	0.007	0.009	0.006	0.122	0.071	0.024	0.007	0.000	0.001	0.045	0.025	0.073	0.025
National Elections																
Vote share CNRP	4.872	0.573	0.000	0.001	2.926	0.302	0.000	0.001	3.309	0.338	0.000	0.001	13.278	1.851	0.000	0.001
Vote share CPP	−4.201	0.593	0.000	0.001	−2.555	0.310	0.000	0.001	−2.868	0.333	0.000	0.001	−11.112	1.841	0.000	0.001
Turnout	2.870	1.212	0.018	0.010	1.199	0.770	0.119	0.051	1.510	0.890	0.090	0.038	3.056	3.115	0.327	0.151
Communal Elections																
Vote share CNRP	2.102	0.469	0.000	0.001	1.213	0.292	0.000	0.001	1.254	0.320	0.000	0.001	4.535	1.469	0.002	0.003
Vote share CPP	−2.018	0.548	0.000	0.001	−1.227	0.332	0.000	0.001	−1.189	0.355	0.001	0.002	−4.959	1.549	0.001	0.003
Turnout	3.034	1.320	0.022	0.006	1.146	0.834	0.170	0.036	1.449	0.956	0.130	0.027	3.062	2.878	0.287	0.061
Political Beliefs, Civic Participation, and Perception of Violence as a Problem in Cambodia																
Support for pluralism	0.044	0.012	0.000	0.001	0.021	0.006	0.000	0.001	0.021	0.008	0.011	0.011	0.073	0.024	0.003	0.006
Voter informedness	0.070	0.021	0.001	0.001	0.054	0.015	0.000	0.001	0.046	0.022	0.034	0.018	0.105	0.055	0.054	0.028
Local civic participation	−0.074	0.018	0.000	0.001	−0.039	0.012	0.001	0.001	−0.042	0.014	0.003	0.007	−0.133	0.051	0.009	0.009
Trust	−0.120	0.028	0.000	0.001	−0.079	0.016	0.000	0.001	−0.083	0.017	0.000	0.001	−0.321	0.082	0.000	0.001
Perception of violence	0.091	0.034	0.007	0.002	0.063	0.025	0.012	0.003	0.053	0.029	0.066	0.028	0.129	0.078	0.100	0.042
Social cost index	0.171	0.026	0.000	0.001	0.105	0.019	0.000	0.001	0.105	0.018	0.000	0.001	0.346	0.078	0.000	0.001
Democratic attitudes index	0.152	0.033	0.000	0.001	0.093	0.021	0.000	0.001	0.085	0.033	0.010	0.009	0.242	0.082	0.003	0.005
Local Governance																
Land concession	−0.627	0.135	0.000	0.001	−0.368	0.065	0.000	0.001	−0.456	0.098	0.000	0.001	−1.648	0.284	0.000	0.001
log Forest loss	−0.051	0.019	0.007	0.005	−0.042	0.011	0.000	0.001	−0.054	0.015	0.000	0.001	−0.212	0.050	0.000	0.001
Illegal logging	−0.034	0.016	0.032	0.010	−0.021	0.009	0.021	0.006	−0.030	0.011	0.007	0.005	−0.054	0.041	0.190	0.050
Illegal overuse	−0.052	0.016	0.002	0.003	−0.028	0.009	0.002	0.002	−0.028	0.011	0.013	0.007	−0.105	0.035	0.002	0.002

Notes: The unit of observation is a commune for the results on *Violence Indicators*, *Elections*, and *Local Governance* and the survey respondent for the results on *Political Beliefs*, *Civic Participation*, *Perception of Violence as a Problem in Cambodia*, and *Community and State Avoidance*. *State Repression* (equation (1)) equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). $SR_{z_{ic}-z_{ip}}$, $SR^i_{z_{ic}-z_{ip}}$, and $SR^{ii}_{z_{ip}}$ are alternative formulations of productivity as discussed in equations (A-2)-(A-4). These formulations predict local productivity, which in turns predicts state repression during the Khmer Rouge era. See Appendix, Section A.1 for more details on the construction of the alternative production shocks. The variables are defined in the relevant table in the main text except for the following. 'Bodies per capita' is the number of dead bodies recovered after the genocide relative to the pre-genocide commune population, 'Bodies per sqkm' is the number of dead bodies recovered after the genocide relative to the pre-genocide commune area measured in square kilometers, 'Mass graves per capita' is the number of mass graves recovered after the genocide relative to the pre-genocide commune population, 'Mass graves per sqkm' is the number of mass graves recovered after the genocide relative to the pre-genocide commune area measured in square kilometers, 'log Bodies' is the natural logarithm of the number of dead bodies recovered after the genocide, 'log Bodies, per capita' is the natural logarithm of the number of dead bodies recovered after the genocide relative to the pre-genocide commune population, 'log Mass graves' is the natural logarithm of the number of mass graves recovered after the genocide, 'log Mass graves, per capita' is the natural logarithm of the number of mass graves recovered after the genocide relative to the pre-genocide commune population, 'log Mass graves, per sqkm' is the natural logarithm of the number of mass graves recovered after the genocide relative to the pre-genocide commune area measured in square kilometers, and 'Body count ≥ 500' is a dummy variable equal to one if the number of dead bodies recovered after the genocide was equal to or greater than 500. Every cell constitutes a separate regression of the productivity measure on the dependent variable in the row header. Province fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, and commune and individual (for *Political Beliefs*, *Civic Participation*, *Perception of Violence as a Problem in Cambodia* and *Community and State Avoidance*, where province is replaced by zone fixed effects for the former) characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors and p-values are corrected for spatial dependence within 1 degree.

Table A-8: Adjusting Political Beliefs, Civic Participation, and Perception of Violence for Multiple Hypothesis Testing

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Without individual characteristics				With individual characteristics			Summary statistics			
									Less state repression (non-productive communes)		More state repression (productive communes)	
	beta	s.e.	p-value	FDR adj. p-value	beta	s.e.	p-value	FDR adj. p-value	Mean	S.D.	Mean	S.D.
Category: Support for pluralism												
All Political parties should hold events	0.025	0.015	0.089	0.227	0.027	0.013	0.041	0.106	0.905	0.293	0.924	0.265
Government and people are equals	0.050	0.027	0.058	0.227	0.041	0.030	0.170	0.198	0.366	0.482	0.434	0.496
Democracy preferred to strong leader	0.004	0.013	0.767	0.360	0.005	0.014	0.707	0.380	0.904	0.295	0.892	0.311
One can vote against the government	−0.027	0.021	0.216	0.227	−0.026	0.020	0.193	0.198	0.854	0.353	0.839	0.368
Not voted because told to vote	0.030	0.018	0.092	0.227	0.030	0.019	0.113	0.157	0.941	0.236	0.967	0.180
Democracy empowers people	0.026	0.018	0.137	0.227	0.039	0.018	0.026	0.106	0.141	0.348	0.137	0.345
Women make own choice in voting	0.030	0.014	0.030	0.227	0.034	0.012	0.005	0.058	0.858	0.349	0.889	0.314
Women as a representative	0.050	0.039	0.199	0.227	0.039	0.036	0.274	0.224	1.080	0.901	1.115	0.893
Would like to see more women	0.015	0.013	0.238	0.227	0.012	0.011	0.268	0.224	0.944	0.230	0.954	0.209
Reserved top list place for women	0.043	0.026	0.091	0.227	0.048	0.024	0.042	0.106	0.542	0.499	0.570	0.496
z-score	0.039	(0.012)			0.044	(0.012)						
Category: Voter informedness												
Know parties are different	0.008	0.044	0.860	0.584	0.003	0.052	0.946	0.683	2.715	1.239	2.744	1.255
Can name representative	0.062	0.020	0.002	0.013	0.055	0.017	0.002	0.012	0.116	0.321	0.182	0.386
Know whether representative visited	0.032	0.019	0.099	0.199	0.030	0.020	0.134	0.202	0.194	0.396	0.229	0.420
Know role of parties in assembly	0.022	0.024	0.370	0.402	0.020	0.022	0.372	0.307	0.305	0.461	0.347	0.476
Understands purpose of democracy	0.023	0.029	0.430	0.402	0.025	0.025	0.319	0.307	0.580	0.494	0.542	0.499
Frequency: Listen to radio	0.047	0.037	0.207	0.302	0.058	0.032	0.076	0.146	1.798	0.873	1.818	0.876
Frequency: Watch TV	0.134	0.056	0.018	0.057	0.124	0.049	0.012	0.038	2.870	1.411	3.028	1.451
z-score	0.073	(0.023)			0.070	(0.021)						
Category: Local civic participation												
Member of #civil associations (CA)	−0.097	0.049	0.048	0.051	−0.112	0.042	0.008	0.009	0.416	0.910	0.346	0.825
Took part in a meeting of a CA	−0.031	0.024	0.189	0.087	−0.039	0.019	0.044	0.023	0.218	0.413	0.208	0.422
Helped reach a decision of a CA	−0.038	0.015	0.013	0.033	−0.037	0.012	0.002	0.004	0.129	0.336	0.120	0.325
Local government affects my life	−0.112	0.044	0.011	0.033	−0.130	0.033	0.000	0.001	0.535	0.499	0.434	0.496
Would report election crime	−0.097	0.069	0.160	0.087	−0.097	0.054	0.072	0.030	3.228	1.065	3.170	1.129
z-score	−0.071	(0.022)			−0.074	(0.018)						
Category: Trust												
Trust in neighborhood	−0.190	0.050	0.000	0.001	−0.186	0.059	0.002	0.004	2.485	0.702	2.257	0.780
Trust in general	−0.033	0.024	0.174	0.096	−0.037	0.022	0.090	0.048	0.196	0.397	0.202	0.402
z-score	−0.118	(0.029)			−0.120	(0.028)						
Category: Perception of violence												
Biggest Problem in Cambodia: Violence	0.013	0.007	0.050	0.026	0.013	0.007	0.076	0.040	0.030	0.171	0.034	0.181
Biggest Problem in Commune: Violence	0.022	0.008	0.008	0.016	0.022	0.008	0.004	0.009	0.039	0.195	0.053	0.224
z-score	0.094	(0.034)			0.091	(0.034)						

Notes: The unit of observation is a survey respondent. The 'z-score' (weighted by the inverse covariance of the standardized outcomes) and the 'FDR adj. p-value' (p-values adjusted for false detection rates) are employed as in Anderson (2008). Zone fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors and p-values are corrected for spatial dependence within 1 degree.

Table A-9: Incidence of Deadly Violence and Commune Population

	(1) #Bodies	(2) #Mass graves	(3) Genocide memorial	(4) Violence Index	(5) Bodies per capita	(6) Bodies per sqkm	(7) Mass graves per capita	(8) Mass graves per sqkm	(9) log Bodies	(10) log Bodies, per capita	(11) log Bodies, per sqkm	(12) log Mass graves	(13) log Mass graves, per capita	(14) log Mass graves, per sqkm	(15) Body count ≥ 500
						All									
State Repression	388.624***	8.001***	0.022***	0.135***	1.259***	7.517	0.026*	0.261***	0.184**	0.073***	0.148***	0.110***	0.015**	0.054***	0.024***
	(150.530)	(3.188)	(0.010)	(0.043)	(0.608)	(4.183)	(0.014)	(0.084)	(0.079)	(0.027)	(0.045)	(0.040)	(0.006)	(0.015)	(0.008)
	[138.740]	[2.847]	[0.008]	[0.031]	[0.461]	[4.913]	[0.013]	[0.077]	[0.076]	[0.024]	[0.039]	[0.036]	[0.006]	[0.012]	[0.009]
						All communes ≤ 99th percentile									
State Repression	384.884***	7.790***	0.022***	0.132***	1.262***	6.518	0.026*	0.243***	0.166**	0.070***	0.137***	0.103***	0.015**	0.051***	0.023**
	(154.381)	(3.308)	(0.010)	(0.043)	(0.612)	(4.350)	(0.014)	(0.091)	(0.083)	(0.028)	(0.046)	(0.039)	(0.006)	(0.016)	(0.009)
	[141.028]	[2.888]	[0.007]	[0.031]	[0.463]	[5.052]	[0.013]	[0.081]	[0.079]	[0.024]	[0.038]	[0.037]	[0.006]	[0.012]	[0.009]
						All communes ≤ 95th percentile									
State Repression	420.144**	7.393**	0.026***	0.148***	1.344**	14.660***	0.024	0.246**	0.180**	0.077**	0.142***	0.114***	0.015**	0.053***	0.025**
	(196.481)	(3.954)	(0.012)	(0.051)	(0.739)	(6.082)	(0.018)	(0.111)	(0.093)	(0.034)	(0.053)	(0.040)	(0.008)	(0.019)	(0.010)
	[176.334]	[3.336]	[0.009]	[0.041]	[0.571]	[5.462]	[0.017]	[0.097]	[0.084]	[0.028]	[0.044]	[0.036]	[0.007]	[0.015]	[0.010]
						All communes ≤ 90th percentile									
State Repression	316.696***	8.140**	0.020**	0.121***	1.204**	13.400***	0.026	0.267**	0.151*	0.070**	0.123***	0.113***	0.016**	0.055***	0.020***
	(141.192)	(4.119)	(0.009)	(0.044)	(0.762)	(5.931)	(0.019)	(0.122)	(0.093)	(0.036)	(0.056)	(0.039)	(0.009)	(0.020)	(0.010)
	[115.612]	[3.497]	[0.008]	[0.035]	[0.543]	[4.978]	[0.018]	[0.106]	[0.080]	[0.028]	[0.044]	[0.036]	[0.008]	[0.016]	[0.009]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The unit of observation is a commune. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). Every row drops communes that have a pre-genocide population above the 99th, 95th, or 90th percentile of the distribution. '#Bodies' is the number of dead bodies recovered after the genocide, '#Mass graves' is the number of mass graves recovered after the genocide, 'Genocide memorial' is a dummy variable equal to 1 if the commune has a memorial commemorating the genocide, 'Standardized violence' is the standardized index of '#Bodies', '#Mass graves', and 'Genocide memorial', accounting for the covariance between these variables, 'Bodies per capita' is the number of dead bodies recovered after the genocide relative to the pre-genocide commune population, 'Bodies per sqkm' is the number of dead bodies recovered after the genocide relative to the pre-genocide commune area measured in square kilometers, 'Mass graves per capita' is the number of mass graves recovered after the genocide relative to the pre-genocide commune population, 'Mass graves per sqkm' is the number of mass graves recovered after the genocide relative to the pre-genocide commune area measured in square kilometers, 'log Bodies' is the natural logarithm of the number of dead bodies recovered after the genocide, 'log Bodies, per capita' is the natural logarithm of the number of dead bodies recovered after the genocide relative to the pre-genocide commune population, 'log Bodies, per sqkm' is the natural logarithm of the number of dead bodies recovered after the genocide relative to the pre-genocide commune area measured in square kilometers, 'log Mass graves' is the natural logarithm of the number of mass graves recovered after the genocide, 'log Mass graves, per capita' is the natural logarithm of the number of mass graves recovered after the genocide relative to the pre-genocide commune population, 'log Mass graves, per sqkm' is the natural logarithm of the number of mass graves recovered after the genocide relative to the pre-genocide commune area measured in square kilometers, and 'Body count ≥ 500' is a dummy variable equal to 1 if the number of dead bodies recovered after the genocide was equal to or greater than 500. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Actual versus Perceived Violence

Table A-10: Perceived Problems Facing Cambodia and Presence of Violent Events

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Perceived problems facing Cambodia				Presence of violent events			
	Violence	Economic issues	Institutional issues	Health and education issues	GDELT	UCDP	ACLED	GDELT + UCDP + ACLED
State Repression	0.091***	−0.020	0.009	−0.016	−0.003	−0.016	−0.011	−0.025
	(0.039)	(0.013)	(0.012)	(0.018)	(0.016)	(0.018)	(0.009)	(0.020)
	[0.034]	[0.013]	[0.011]	[0.015]	[0.016]	[0.014]	[0.009]	[0.018]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes	Yes				
Observations	1,999	1,999	1,999	1,999	1,621	1,621	1,621	1,621
Mean					0.148	0.070	0.052	0.222

Notes: The unit of observation is a survey respondent (commune) in columns 1-4 (5-8). *State Repression* is a dummy variable equal to 1 if the commune experienced above-average standardized province productivity during the wet season in the Khmer Rouge period (1975–1977). In columns 1-4, every cell constitutes a separate regression of the productivity measure on the dependent variable in the header using individual-level data. The row names define the sample used: 'All' includes the full sample, 'Alive during the Khmer Rouge period' includes respondents born before 1979, and 'Born after the Khmer Rouge period' includes respondents born after 1978. Columns 1-4 contain standardized responses to the question: "In your view, what is the biggest problem facing Cambodia (national)/your Commune (local)?" 'Violence' is a standardized index (across national and local) assessing whether the respondent perceives violence as the biggest problem facing Cambodia/her or his Commune today. 'Economic issues' is a standardized index across national and local issues over the variables the economy (general), poverty, unemployment, underdevelopment, housing shortages, crisis, lack of land for farming, and water problems. 'Institutional issues' is a standardized index across national and local issues over the variables corruption, crime, problem of immigration, deforestation, troubles with Thais, lack of freedom, leaders, and opposition. 'Health and educational issues' is a standardized index across national and local issues over the variables education/schools, health care, HIV/AIDS, and drugs. In columns 5-8, the data is aggregated at the commune level. 'GDELT' is a dummy variable equal to 1 if an event was recorded in the 'Global Database of Events, Language and Tone' database (-10 on the Goldstein scale) in the period 1979-1999. 'UCDP' is a dummy variable equal to 1 if an event was recorded in the 'Uppsala Conflict Data Program' database (violence against organized actors or civilians) in the period 1989-2012. 'ACLED' is a dummy variable equal to 1 if an event was recorded in the 'Armed Conflict Location & Event Data' database (violence against civilians) in the period 2010-2020. 'GDELT+UCDP+ACLED' is a dummy variable equal to 1 if an event was recorded in the GDELT database (-10 on the Goldstein scale) or in the UCDP database (violence against organized actors or civilians) or in the ACLED database (violence against civilians) in the period 1979-2020. 'Mean' denotes the mean in communes with less state repression. Zone (columns 1-4) or province (columns 5-8) fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: $^* p < 0.10$, $^{**} p < 0.05$, $^{***} p < 0.01$.

Intergenerational Effects and State Avoidance

Table A-11: Social Costs and Democratic Attitudes: Generational Effects

	(1)	(2)
	Social costs index	Democratic attitudes index
People Alive During Khmer Rouge:		
State Repression	0.188***	0.151***
	0.041	0.035
	[0.041]	[0.041]
Observations	1,321	1,321
People Born After Khmer Rouge:		
State Repression	0.164***	0.130***
	0.055	0.033
	[0.042]	[0.041]
Observations	678	678
Pre-genocide commune characteristics	Yes	Yes
Individual characteristics	Yes	Yes

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Social costs index' is a standardized index combining Trust (reversed), Fear of violence, and Local civic participation (reversed), so that higher values indicate greater social costs. 'Support for pluralism' and 'Voter informedness are standardized indices based on the individual variables displayed in Table A-8. 'Democratic attitudes index' is a standardized index combining the two, so that higher values indicate greater democratic attitudes. Zone fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, pre-genocide commune characteristics, and individual characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-12: Community and State Avoidance

	(1) Annual community contributions	(2) Annual taxes paid	(3) Working for the government	(4) Working for the foreign private sector
		All		
State Repression	−22.371***	−4.007***	−0.008***	0.022***
	(11.755)	(1.668)	(0.003)	(0.005)
	[7.675]	[1.232]	[0.002]	[0.005]
		Alive during the Khmer Rouge period		
State Repression	−26.661**	−2.064	−0.008**	0.008***
	(14.228)	(1.977)	(0.004)	(0.002)
	[11.408]	[1.404]	[0.003]	[0.001]
		Born after the Khmer Rouge period		
State Repression	−14.217***	−4.698***	−0.003	0.039***
	(10.940)	(1.296)	(0.003)	(0.009)
	[2.914]	[1.458]	[0.003]	[0.010]
Individual characteristics	Yes	Yes	Yes	Yes
Observations all	23,071	23,071	135,478	135,478
Mean all	314.450	40.466	0.107	0.091
Observations alive during KR	16,894	16,894	77,485	77,485
Mean alive during KR	356.629	49.226	0.148	0.034
Observations born after KR	6,177	6,177	57,993	57,993
Mean born after KR	186.636	13.922	0.049	0.170

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). Every cell constitutes a separate regression of the productivity measure on the dependent variable in the header using household-level data. The row names define the sample used: 'All' includes the full sample, 'Alive during the Khmer Rouge period' includes respondents born before 1979, and 'Born after the Khmer Rouge period' includes respondents born after 1978. 'Annual community contributions' is the amount of household cash or in-kind transfers to charity and inter-household transfers over the last 12 months in Cambodian riel converted to USD PPP terms using conversion rates published by the World Bank's International Comparison Program database (1 USD PPP $\approx$ 1,340 riel in 2012). 'Annual taxes paid' is the amount of property and income taxes paid by the household in Cambodian riel converted to USD PPP terms using conversion rates published by the World Bank's International Comparison Program database (1 USD PPP $\approx$ 1,340 riel in 2012). 'Working for the government' is a dummy variable equal to 1 if the (adult) survey respondent is a paid government employee and 0 otherwise, and 'Working for the foreign private sector' is a dummy variable equal to 1 if the (adult) survey respondent is a paid private-sector employee working for a foreign-owned firm and 0 otherwise. 'Mean' denotes the mean in communes with less state repression. Province fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parenthesis and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Alternative Geographic Specifications

Table A-13: Social Costs and Democratic Attitudes with Province Fixed Effects

	(1) Trust	(2) Local civic participation	(3) Fear of violence	(4) Social costs index	(5) Support for pluralism	(6) Voter informedness	(7) Democratic attitudes index
State Repression	−0.106***	−0.043**	0.082**	0.132***	0.051***	0.052**	0.149***
	(0.025)	(0.020)	(0.041)	(0.031)	(0.011)	(0.030)	(0.039)
	[0.022]	[0.018]	[0.033]	[0.026]	[0.013]	[0.024]	[0.037]
Pre-genocide commune							
characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,999	1,999	1,999	1,999	1,999	1,999	1,999

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Trust', 'Fear of violence', and 'Local civic participation' are standardized indices based on the individual variables displayed in Table A-8. 'Social costs index' is a standardized index combining Trust (reversed), Fear of violence, and Local civic participation (reversed), so that higher values indicate greater social costs. 'Support for pluralism' and 'Voter informedness' are standardized indices based on the individual variables displayed in Table A-8. 'Democratic attitudes index' is a standardized index combining Support for pluralism and Voter informedness. Province fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, pre-genocide commune characteristics, and individual characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-14: State Repression and Road Access

	(1) Standardized violence	(2) Social cost index	(3) Democratic attitudes index	(4) Opposition vote share	(5) Incumbent vote share	(6) Turnout
State Repression	0.134***	0.180***	0.156***	4.865***	−4.198***	3.040**
	(0.046)	(0.030)	(0.033)	(0.854)	(0.854)	(1.599)
	[0.029]	[0.026]	[0.034]	[0.641]	[0.653]	[1.333]
State Repression × log(Distance to closest Road)	0.003	−0.033	−0.016	0.019	−0.006	−0.421
	(0.029)	(0.041)	(0.028)	(0.390)	(0.456)	(0.882)
	[0.029]	[0.039]	[0.027]	[0.380]	[0.408]	[0.832]
Pre-genocide commune						
characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics		Yes	Yes			
Observations	1,621	1,999	1,999	1,621	1,621	1,621

Notes: The unit of observation is a commune in columns (1) and (4)-(6) and a survey respondent in columns (2) and (3). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Standardized violence' is the standardized index of '#Bodies', '#Mass graves', and 'Genocide memorial', accounting for the covariance between these variables. 'Social costs index' is a standardized index combining Trust (reversed), Fear of violence, and Local civic participation (reversed), so that higher values indicate greater social costs. 'Democratic attitudes index' is a standardized index combining Support for pluralism and Voter informedness. 'Opposition vote share' is the vote share of the opposition Cambodia National Rescue Party in the 2013 national election. 'Turnout' is the electoral turnout. Zone fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, pre-genocide commune characteristics, and individual characteristics as defined in Table 2 are included in columns (2) and (3), Province fixed effects in the remaining columns. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Social Costs of Exposure

Table A-15: Social Costs of Exposure: Alternative Shock Definitions

	(1) Trust	(2) Local civic participation	(3) Fear of violence	(4) Social costs index
State Repression	-0.120^{***}	-0.074^{***}	0.091^{***}	0.171^{***}
	0.033	0.020	0.039	0.029
	[0.028]	[0.018]	[0.034]	[0.026]
$SR^{i}_{z_c - z_p}$	-0.079^{***}	-0.039^{***}	0.063^{**}	0.105^{***}
	0.014	0.012	0.028	0.013
	[0.016]	[0.012]	[0.025]	[0.019]
$SR^{ii}_{z_c - z_p}$	-0.083^{***}	-0.042^{***}	0.053^{*}	0.105^{***}
	0.017	0.016	0.032	0.021
	[0.017]	[0.014]	[0.029]	[0.018]
$SR^{iii}_{z_c}$	-0.321^{***}	-0.133^{***}	0.129	0.346^{***}
	0.095	0.053	0.111	0.076
	[0.082]	[0.051]	[0.078]	[0.078]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes	Yes
Observations	1,999	1,999	1,999	1,999

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). '$SR^{i}_{z_c - z_p}$'–'$SR^{iii}_{z_c}$' are alternative formulations of productivity as discussed in equations (A-2)–(A-4). These formulations predict local productivity, which in turns predicts state repression during the Khmer Rouge era. The regression specification is identical to equation (3) outlined in the main text with the addition of survey-year fixed effects and *State Repression* replaced with each productivity measure as defined above. 'Trust', 'Fear of violence', and 'Local civic participation' are standardized indices based on the individual variables displayed in Table A-8. 'Social costs index' is a standardized index combining Trust (reversed), Fear of violence, and Local civic participation (reversed), so that higher values indicate greater social costs. Zone fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, pre-genocide commune characteristics, and individual characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: $^{*}\ p < 0.10$, $^{**}\ p < 0.05$, $^{***}\ p < 0.01$.

Table A-16: Social Costs of Exposure: Dropping Large Communes

	(1) Trust	(2) Local civic participation	(3) Fear of violence	(4) Social costs index
All Communes				
State Repression	−0.120***	−0.074***	0.091***	0.171***
	0.033	0.020	0.039	0.029
	[0.028]	[0.018]	[0.034]	[0.026]
Observations	1,999	1,999	1,999	1,999
All communes≤ 99th percentile				
State Repression	−0.119***	−0.073***	0.088**	0.168***
	0.033	0.021	0.040	0.030
	[0.029]	[0.019]	[0.035]	[0.028]
Observations	1,964	1,964	1,964	1,964
All communes≤ 95th percentile				
State Repression	−0.136***	−0.081***	0.120***	0.199***
	0.035	0.022	0.051	0.035
	[0.029]	[0.020]	[0.045]	[0.034]
Observations	1,780	1,780	1,780	1,780
All communes≤ 90th percentile				
State Repression	−0.146***	−0.089***	0.131***	0.217***
	0.040	0.029	0.058	0.045
	[0.034]	[0.025]	[0.045]	[0.041]
Observations	1,594	1,594	1,594	1,594
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes	Yes

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Trust', 'Fear of violence', and 'Local civic participation' are standardized indices based on the individual variables displayed in Table A-8. 'Social costs index' is a standardized index combining Trust (reversed), Fear of violence, and Local civic participation (reversed), so that higher values indicate greater social costs. Zone fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, pre-genocide commune characteristics, and individual characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Political Engagement

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Table A-17: Political Engagement: Alternative Shock Definitions

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Democratic attitudes			Electoral engagement					
	Support for pluralism	Voter informedness	Democratic attitudes index	Opposition vote share National	Communal	Incumbent vote share National	Communal	Turnout National	Communal
State Repression	0.044***	0.070***	0.152***	4.872***	2.102***	−4.201***	−2.018***	2.870**	3.034**
	(0.008)	(0.024)	(0.029)	(0.798)	(0.623)	(0.792)	(0.740)	(1.422)	(1.582)
	[0.012]	[0.021]	(0.033)	[0.573]	[0.469]	[0.593]	[0.548]	[1.212]	[1.320]
$SR^{i}_{z_c - z_p}$	0.021***	0.054***	0.093***	2.926***	1.213***	−2.555	−1.227***	1.199	1.146
	0.006	0.017	0.023	(0.434)	(0.333)	(0.427)	(0.408)	(0.791)	(0.822)
	[0.006]	[0.015]	[0.021]	[0.302]	[0.292]	[0.310]	[0.332]	[0.770]	[0.834]
$SR^{ii}_{z_c - z_p}$	0.021***	0.046***	0.085***	3.309***	1.254***	−2.868***	−1.189***	1.510*	1.449
	0.006	0.024	0.031	(0.478)	(0.429)	(0.450)	(0.492)	(0.867)	(0.945)
	[0.008]	[0.022]	[0.033]	[0.338]	[0.320]	[0.333]	[0.355]	[0.890]	[0.956]
$SR^{iii}_{z_c}$	0.073***	0.105*	0.242***	13.278***	4.535***	−11.112***	−4.959***	3.056	3.062
	0.018	0.065	0.081	(2.130)	(1.722)	(2.321)	(1.870)	(3.614)	(3.001)
	[0.024]	[0.055]	[0.082]	[1.851]	[1.469]	[1.841]	[1.549]	[3.115]	[2.878]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes						
Election year				2013	2012 & 2017	2013	2012 & 2017	2013	2012 & 2017
Observations	1,999	1,999	1,999	1,621	3,230	1,621	3,230	1,621	3,230
Mean				37.512	33.683	54.782	61.664	77.274	75.427

Notes: The unit of observation is a survey respondent (columns 1-3) or a commune (columns 4-7). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). '$SR^{i}_{z_c-z_p}$'–'$SR^{iii}_{z_c}$' are alternative formulations of productivity as discussed in equations (A-2)–(A-4). 'Support for pluralism' and 'Voter informedness' are standardized indices based on the individual variables displayed in Table A-8. 'Democratic attitudes index' is a standardized index combining Support for pluralism and Voter informedness. 'Turnout' is the electoral turnout. 'Opposition vote share' is the vote share of the opposition Cambodia National Rescue Party in the 2013 national election and the 2012 and 2017 communal elections. 'Mean' denotes the mean in communes with less state repression. Zone fixed effects (columns 1-3) or province fixed effects (columns 4-7), survey-year or election-year fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics (columns 1-3) are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-18: Political Engagement: Dropping Large Communes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Democratic attitudes			Electoral engagement					
	Support for pluralism	Voter informedness	Democratic attitudes index	Opposition vote share		Incumbent vote share		Turnout	
				National	Communal	National	Communal	National	Communal
All Communes									
State Repression	0.044***	0.070***	0.152***	4.872***	2.102***	−4.201***	−2.018***	2.870**	3.034**
	(0.008)	(0.024)	(0.029)	(0.798)	(0.623)	(0.792)	(0.740)	(1.422)	(1.582)
	[0.012]	[0.021]	(0.033)	[0.573]	[0.469]	[0.593]	[0.548]	[1.212]	[1.320]
Observations	1,999	1,999	1,999	1,621	3,230	1,621	3,230	1,621	3,230
All communes≤ 99th percentile									
State Repression	0.042***	0.066***	0.144***	4.897***	2.110***	−4.225***	−2.033***	2.779**	2.916**
	0.009	0.023	0.029	(0.811)	(0.631)	(0.806)	(0.751)	(1.428)	(1.594)
	[0.012]	[0.021]	[0.034]	[0.577]	[0.472]	[0.595]	[0.551]	[1.210]	[1.326]
Observations	1,964	1,964	1,964	1,605	3,198	1,605	3,198	1,605	3,198
All communes≤ 95th percentile									
State Repression	0.052***	0.071***	0.169***	4.031***	1.816***	−3.467***	−1.613***	1.881	1.815
	0.009	0.025	0.030	(0.805)	(0.647)	(0.840)	(0.779)	(1.588)	(1.712)
	[0.012]	[0.023]	[0.035]	[0.584]	[0.492]	[0.614]	[0.563]	[1.333]	[1.343]
Observations	1,780	1,780	1,780	1,540	3,068	1,540	3,068	1,540	3,068
All communes≤ 90th percentile									
State Repression	0.055***	0.077***	0.180***	3.857	1.727	−3.253	−1.519	2.067	2.030
	0.009	0.029	0.032	(0.872)	(0.731)	(0.904)	(0.869)	(1.614)	(1.751)
	[0.013]	[0.025]	[0.038]	[0.615]	[0.535]	[0.635]	[0.607]	[1.327]	[1.349]
Observations	1,594	1,594	1,594	1,459	2,906	1,459	2,906	1,459	2,906
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes						
Election year				2013	2012 & 2017	2013	2012 & 2017	2013	2012 & 2017
Mean				37.512	33.683	54.782	61.664	77.274	75.427

Notes: The unit of observation is a survey respondent (columns 1-3) or a commune (columns 4-7). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Support for pluralism' and 'Voter informedness' are standardized indices based on the individual variables displayed in Table A-8. 'Democratic attitudes index' is a standardized index combining Support for pluralism and Voter informedness. 'Turnout' is the electoral turnout. 'Opposition vote share' is the vote share of the opposition Cambodia National Rescue Party in the 2013 national election and the 2012 and 2017 communal elections. 'Mean' denotes the mean in communes with less state repression. Zone fixed effects (columns 1-3) or province fixed effects (columns 4-7), survey-year or election-year fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics (columns 1-3) are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Local Governance

Table A-19: Local Governance: Alternative Shock Definitions

	(1) Land concession	(2) Forest loss	(3)	(4) Illegal resource use	(5)
		log	Share	log	Share
State Repression	−0.051***	−0.627***	−0.026**	−0.052***	−0.031**
	(0.021)	(0.164)	(0.010)	(0.024)	(0.017)
	[0.019]	[0.135]	[0.011]	[0.020]	[0.013]
$SR^{i}_{z_c - z_p}$	−0.042***	−0.368***	−0.013**	−0.022*	−0.008
	(0.013)	(0.075)	(0.005)	(0.013)	(0.008)
	[0.011]	[0.065]	[0.006]	[0.013]	[0.007]
$SR^{ii}_{z_c - z_p}$	−0.054***	−0.456***	−0.017**	−0.040***	−0.021**
	(0.016)	(0.112)	(0.007)	(0.015)	(0.011)
	[0.015]	[0.098]	[0.007]	[0.015]	[0.009]
$SR^{iii}_{z_c}$	−0.212***	−1.648***	−0.075**	−0.070	−0.045
	(0.054)	(0.297)	(0.029)	(0.077)	(0.044)
	[0.050]	[0.284]	[0.031]	[0.061]	[0.034]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes
Survey-year fixed effects				Yes	Yes
Mean	0.199	4.237	0.120	0.442	0.358
Observations	1,621	1,621	1,621	2,467	2,467

Notes: The unit of observation is a commune. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). '$SR^{i}_{z_c-z_p}$'–'$SR^{iii}_{z_c}$' are alternative formulations of productivity as discussed in equations (A-2)–(A-4). 'Land concession' is a dummy variable equal to 1 if the commune granted an economic land concession permit between 2001 and 2015. 'Forest loss (log)' is the log of hectares of forest lost between 2000 and 2018 as calculated by Hansen et al. (2013). 'Forest loss (share)' is the share of forest cover lost over the same period. 'Illegal resource use (log)' is the log of the sum of available resources exploited illegally in a village as reported in the Cambodia Socio-Economic Survey. 'Illegal resource use (share)' is the fraction of available resources exploited illegally. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-20: Local Governance: Dropping Large Communes

	(1) Land concession	(2) Forest loss	(3)	(4) Illegal resource use	(5)
		log	Share	log	Share
All Communes					
State Repression	−0.051***	−0.627***	−0.026**	−0.052***	−0.031**
	(0.021)	(0.164)	(0.010)	(0.024)	(0.017)
	[0.019]	[0.135]	[0.011]	[0.020]	[0.013]
Observations	1,621	1,621	1,621	2,467	2,467
All communes≤ 99th percentile					
State Repression	−0.050***	−0.623***	−0.026**	−0.045**	−0.024**
	(0.020)	(0.165)	(0.010)	(0.025)	(0.017)
	[0.019]	[0.134]	[0.011]	[0.020]	[0.012]
Observations	1,605	1,605	1,605	2,425	2,425
All communes≤ 95th percentile					
State Repression	−0.023	−0.503***	−0.020	−0.031*	−0.021*
	(0.019)	(0.153)	(0.012)	(0.028)	(0.019)
	[0.018]	[0.105]	[0.012]	[0.019]	[0.013]
Observations	1,540	1,540	1,540	2,339	2,339
All communes≤ 90th percentile					
State Repression	−0.026	−0.519***	−0.023*	−0.029	−0.022
	(0.018)	(0.159)	(0.012)	(0.027)	(0.020)
	[0.018]	[0.104]	[0.012]	[0.020]	[0.015]
Observations	1,459	1,459	1,459	2,115	2,115
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes
Survey-year fixed effects				Yes	Yes
Mean	0.199	4.237	0.120	0.442	0.358

Notes: The unit of observation is a commune. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Land concession' is a dummy variable equal to 1 if the commune granted an economic land concession permit between 2001 and 2015. 'Forest loss (log)' is the log of hectares of forest lost between 2000 and 2018 as calculated by Hansen et al. (2013). 'Forest loss (share)' is the share of forest cover lost over the same period. 'Illegal resource use (log)' is the log of the sum of available resources exploited illegally in a village as reported in the Cambodia Socio-Economic Survey. 'Illegal resource use (share)' is the fraction of available resources exploited illegally. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: $^{*}\ p < 0.10$, $^{**}\ p < 0.05$, $^{***}\ p < 0.01$.

Protest

Table A-21: Protest: Alternative Shock Definitions

	(1)	(2)	(3)	(4)
	Protests		Share protests	
	All communes	Communes in news	All communes	Communes in news
State Repression	0.005**	0.028***	0.003***	0.014***
	(0.002)	(0.007)	(0.001)	(0.006)
	[0.002]	[0.010]	[0.001]	[0.005]
State Repression × Rainy DoA	−0.001**	−0.008***	−0.001**	−0.0039***
	(0.001)	(0.002)	(0.000)	(0.002)
	[0.001]	[0.003]	[0.000]	[0.001]
$SR^{i}_{z_c - z_p}$	0.001	0.010*	0.000	0.005*
	(0.001)	(0.005)	(0.000)	(0.002)
	[0.001]	[0.006]	[0.001]	[0.003]
$SR^{i}_{z_c - z_p} \times$ Rainy DoA	−0.000	−0.003*	−0.000	−0.001*
	(0.000)	(0.001)	(0.000)	(0.001)
	[0.000]	[0.002]	[0.000]	[0.001]
$SR^{ii}_{z_c - z_p}$	0.003*	0.022*	0.002*	0.011*
	(0.002)	(0.011)	(0.001)	(0.005)
	[0.002]	[0.012]	[0.001]	[0.006]
$SR^{ii}_{z_c - z_p} \times$ Rainy DoA	−0.001	−0.006*	−0.000	−0.003*
	(0.001)	(0.003)	(0.000)	(0.001)
	[0.001]	[0.003]	[0.000]	[0.002]
$SR^{iii}_{z_c}$	0.003	0.008	0.001	0.004
	(0.003)	(0.012)	(0.001)	(0.006)
	[0.003]	[0.011]	[0.001]	[0.005]
$SR^{iii}_{z_c} \times$ Rainy DoA	−0.001	−0.003	−0.000	−0.002
	(0.001)	(0.003)	(0.000)	(0.001)
	[0.001]	[0.002]	[0.000]	[0.001]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Mean	0.002	0.010	0.001	0.005
Observations	15,290	3,620	15,290	3,620

Notes: The unit of observation is a commune-year. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). '$SR^{i}_{z_c - z_p}$'–'$SR^{iii}_{z_c}$' are alternative formulations of productivity as discussed in equations (A-2)–(A-4). 'Rainy Days of Anger' (DoA) is the number of rainy Days of Anger in the commune in the past 5 years, where a day is considered rainy if there was significant rain (above the historical mean). 'Protests' is a dummy variable equal to 1 if a protest was reported in the commune, identified from Khmer-language news reports from Radio Free Asia. 'Share protests' is the number of protests divided by total news coverage in the commune. Columns 1 and 3 include all communes; columns 2 and 4 restrict to communes ever mentioned in the news. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-22: Protest: Dropping Large Communes

	(1)	(2)	(3)	(4)
	Protests		Share protests	
	All communes	Communes in news	All communes	Communes in news
All Communes				
State Repression	0.005**	0.028***	0.003***	0.014***
	(0.002)	(0.007)	(0.001)	(0.006)
	[0.002]	[0.010]	[0.001]	[0.005]
State Repression × Rainy DoA	−0.001**	−0.008***	−0.001**	−0.004***
	(0.001)	(0.002)	(0.000)	(0.002)
	[0.001]	[0.003]	[0.000]	[0.001]
Observations	15,920	3,620	15,920	3,620
All communes≤ 99th percentile				
State Repression	0.005**	0.029***	0.003***	0.014***
	(0.002)	(0.008)	(0.001)	(0.004)
	[0.002]	[0.010]	[0.001]	[0.005]
State Repression × Rainy DoA	−0.001**	−0.008***	−0.001**	−0.004***
	(0.001)	(0.002)	(0.000)	(0.001)
	[0.001]	[0.003]	[0.000]	[0.001]
Observations	15,770	3,550	15,770	3,550
All communes≤ 95th percentile				
State Repression	0.005***	0.031***	0.003***	0.015***
	(0.002)	(0.007)	(0.001)	(0.004)
	[0.002]	[0.009]	[0.001]	[0.005]
State Repression × Rainy DoA	−0.001**	−0.008***	−0.001**	−0.004***
	(0.001)	(0.002)	(0.000)	(0.001)
	[0.001]	[0.003]	[0.000]	[0.001]
Observations	15,130	3,390	15,130	3,390
All communes≤ 90th percentile				
State Repression	0.006***	0.032***	0.003***	0.016***
	(0.002)	(0.008)	(0.001)	(0.004)
	[0.002]	[0.009]	[0.001]	[0.005]
State Repression × Rainy DoA	−0.001**	−0.008***	−0.001**	−0.004***
	(0.001)	(0.002)	(0.000)	(0.001)
	[0.001]	[0.003]	[0.000]	[0.001]
Observations	14,360	3,240	14,360	3,240
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Mean	0.002	0.010	0.001	0.005

Notes: The unit of observation is a commune-year. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Rainy Days of Anger' (DoA) is the number of rainy Days of Anger in the commune in the past 5 years, where a day is considered rainy if there was significant rain (above the historical mean). 'Protests' is a dummy variable equal to 1 if a protest was reported in the commune, identified from Khmer-language news reports from Radio Free Asia. 'Share protests' is the number of protests divided by total news coverage in the commune. Columns 1 and 3 include all communes; columns 2 and 4 restrict to communes ever mentioned in the news. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3.Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Wild Cluster Bootstrap Inference

Table A-23: Incidence of Deadly Violence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	#Bodies		#Mass graves		Genocide memorial		Standardized violence	
State Repression	377.914***	388.624***	8.501***	8.001***	0.020***	0.022***	0.127***	0.135***
Cluster-robust	(0.038)	(0.017)	(0.024)	(0.020)	(0.077)	(0.039)	(0.010)	(0.004)
Corrected for spatial dependence	[0.008]	[0.005]	[0.003]	[0.005]	[0.012]	[0.004]	[0.000]	[0.000]
Wild bootstrap	{0.030}	{0.010}	{0.031}	{0.018}	{0.074}	{0.033}	{0.014}	{0.010}
Pre-genocide commune								
characteristics		Yes		Yes		Yes		Yes
Mean	407.873	407.873	7.094	7.094	0.035	0.035		
Observations	1,621	1,621	1,621	1,621	1,621	1,621	1,621	1,621

Notes: The unit of observation is a commune. *State Repression* is a dummy variable equal to 1 if the commune experienced above-average standardized province productivity during the wet season in the Khmer Rouge period (1975–1977). '#Bodies' is the number of dead bodies recovered after the genocide, '#Mass graves' is the number of mass graves recovered after the genocide, and 'Genocide memorial' is a dummy variable equal to 1 if the commune has a memorial commemorating the genocide. 'Standardized violence' is the standardized index of '#Bodies', '#Mass graves', and 'Genocide memorial', accounting for the covariance between these variables. 'Mean' denotes the mean in communes without state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 4. *P*-values are shown in parentheses (clustered by 24 provinces), brackets (spatially corrected within 1 degree), and curly braces (wild cluster bootstrap). Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-24: Social Costs of Exposure

	(1)	(2)	(3)	(4)
	Trust	Local civic participation	Fear of violence	Social costs index
State Repression	−0.120***	−0.074***	0.091***	0.171***
Cluster-robust	(0.001)	(0.001)	(0.028)	(0.000)
Corrected for spatial dependence	[0.000]	[0.000]	[0.007]	[0.000]
Wild bootstrap	{0.002}	{0.017}	{0.027}	{0.000}
Pre-genocide commune				
characteristics	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes	Yes
Observations	1,999	1,999	1,999	1,999

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Trust', 'Local civic participation', and 'Fear of violence' are standardized indices based on the individual variables displayed in Table A-8. 'Social costs index' is a standardized index combining Trust (reversed), Local civic participation (reversed), and Fear of violence so that higher values indicate greater social costs. Zone fixed effects, survey-year fixed effects, a second-degree polynomial in latitude and longitude, pre-genocide commune characteristics, and individual characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. *P*-values are shown in parentheses (clustered by 24 provinces), brackets (spatially corrected within 1 degree), and curly braces (wild cluster bootstrap). Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-25: Political Engagement

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Democratic attitudes			Electoral engagement					
	Support for pluralism	Voter informedness	Democratic attitudes index	Opposition vote share		Incumbent vote share		Turnout	
				National	Communal	National	Communal	National	Communal
State Repression	0.044***	0.070***	0.152***	4.872***	2.102***	−4.201***	−2.018***	2.870**	3.034**
Cluster-robust	(0.000)	(0.007)	(0.000)	(0.000)	(0.003)	(0.000)	(0.012)	(0.055)	(0.067)
Corrected for spatial dependence	[0.000]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.018]	[0.022]
Wild bootstrap	{0.002}	{0.005}	{0.000}	{0.000}	{0.011}	{0.000}	{0.018}	{0.071}	{0.079}
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes						
Election year				2013	2012 & 2017	2013	2012 & 2017	2013	2012 & 2017
Observations	1,999	1,999	1,999	1,621	3,230	1,621	3,230	1,621	3,230
Mean				37.512	33.683	54.782	61.664	77.274	75.427

Notes: The unit of observation is a survey respondent (columns 1-3) or a commune (columns 4-9). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Support for pluralism' and 'Voter informedness' are standardized indices based on the individual variables displayed in Table A-8. 'Democratic attitudes index' is a standardized index combining Support for pluralism and Voter informedness. 'Opposition vote share' is the vote share of the opposition alliance Cambodia National Rescue Party in the national election in 2013 and the communal elections in 2017 and computed as the combined votes of the 'Sam Rainsy Party' and the 'Human Rights Party' in the communal elections in 2012, 'Incumbent vote share' is the vote share of the long-term incumbent Cambodia People's Party, and 'Turnout' is the electoral turnout. 'Mean' denotes the mean in communes with less state repression. Zone fixed effects (columns 1-3) or province fixed effects (columns 4-9), survey-year or election-year fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics (columns 1-3) are defined in Table 2. The data sources are described in Section 3. *P*-values are shown in parentheses (clustered by 24 provinces), brackets (spatially corrected within 1 degree), and curly braces (wild cluster bootstrap). Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-26: Local Governance

	(1)	(2)	(3)	(4)	(5)
	Land concession	Forest loss		Illegal resource use	
		log	share	log	share
State Repression	−0.051***	−0.627***	−0.026**	−0.052***	−0.031**
Cluster-robust	(0.022)	(0.001)	(0.019)	(0.039)	(0.084)
Corrected for spatial dependence	[0.007]	[0.000]	[0.020]	[0.010]	[0.013]
Wild bootstrap	{0.019}	{0.001}	{0.013}	{0.043}	{0.115}
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes
Survey-year fixed effects				Yes	Yes
Mean	0.199	4.237	0.120	0.442	0.358
Observations	1,621	1,621	1,621	2,467	2,467

Notes: The unit of observation is a commune in columns (1) - (3) and a commune-year in columns (4) and (5). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Land concession' is a dummy variable equal to 1 if the commune granted an economic land concession permit between 2001 and 2015. 'Forest loss (log)' is the log of hectares of forest lost between 2000 and 2018 as calculated by Hansen et al. (2013). 'Forest loss (share)' is the share of forest cover lost over the same period. 'Illegal resource use (log)' is the log of the sum of available resources exploited illegally in a village as reported in the Cambodia Socio-Economic Survey. 'Illegal resource use (share)' is the fraction of available resources exploited illegally. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. *P*-values are shown in parentheses (clustered by 24 provinces), brackets (spatially corrected within 1 degree), and curly braces (wild cluster bootstrap). Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-27: Public Remembrance

	(1) Genocide Memorial	(2) Social costs of exposure	(3)	(4) Political engagement	(5)	(6)	(7)	(8) Local governance	(9)	(10)
		Social costs index	Democratic attitudes index	Opposition vote share	Incumbent vote share	Turnout	Forest loss (next year) log	Share	Illegal resource use (next year) log	Share
State Repression	0.022***	0.318***	0.272***	5.610***	−4.907***	5.795***	−0.263**	−0.005***	−0.098**	−0.076**
Cluster-robust	(0.039)	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.036)	(0.006)	(0.088)	(0.080)
Corrected for spatial dependence	[0.012]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.040]	[0.009]	[0.045]	[0.011]
Wild bootstrap	{0.033}	{0.000}	{0.002}	{0.004}	{0.004}	{0.001}	{0.082}	{0.005}	{0.122}	{0.129}
Rainy Days of Anger		0.066**	0.055*	0.370	−0.783	3.239***	−0.005	−0.000	−0.036**	−0.029***
Cluster-robust		(0.073)	(0.151)	(0.688)	(0.456)	(0.037)	(0.910)	(0.741)	(0.085)	(0.017)
Corrected for spatial dependence		[0.013]	[0.052]	[0.646]	[0.382]	[0.001]	[0.048]	[0.047]	[0.037]	[0.007]
Wild bootstrap		{0.155}	{0.249}	{0.711}	{0.530}	{0.042}	{0.936}	{0.783}	{0.094}	{0.019}
State Repression × Rainy DoA		−0.093***	−0.064***	−2.711***	2.537***	−4.834***	0.052**	0.002**	0.027*	0.022**
Cluster-robust		(0.002)	(0.025)	(0.021)	(0.037)	(0.005)	(0.074)	(0.070)	(0.139)	(0.081)
Corrected for spatial dependence		[0.002]	[0.010]	[0.002]	[0.010]	[0.000]	[0.048]	[0.047]	[0.084]	[0.043]
Wild bootstrap		{0.003}	{0.037}	{0.052}	{0.076}	{0.000}	{0.083}	{0.051}	{0.139}	{0.105}
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics		Yes	Yes							
Year fixed effects							Yes	Yes	Yes	Yes
Observations	1,621	1,999	1,999	1,621	1,621	1,621	27,557	27,557	2,467	2,467

Notes: The unit of observation is a commune (columns 1, 4-10) or a survey respondent (columns 2-3). *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Rainy Days of Anger' (DoA) is the number of rainy Days of Anger in the commune in the past 5 years, where a day is considered rainy if there was significant rain (above the historical mean). 'Genocide memorial' is a dummy variable equal to 1 if the commune has a memorial commemorating the genocide. 'Trust', 'Fear of violence', and 'Local civic participation' are standardized indices as defined in Table 3. 'Support for pluralism' and 'Voter informedness' are standardized indices as defined in Table 4. 'Turnout' is the electoral turnout and 'Opposition vote share' is the vote share of the opposition Cambodia National Rescue Party in the 2013 national election. 'Forest loss' and 'Illegal resource use' are defined as in Table 5, measured in the year following the Day of Anger. Province fixed effects (columns 1, 7-12) or zone fixed effects (columns 2-6), a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics (columns 2-6) are defined in Table 2. The data sources are described in Section 3. *P*-values are shown in parentheses (clustered by 24 provinces), brackets (spatially corrected within 1 degree), and curly braces (wild cluster bootstrap). Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-28: Protest

	(1)	(2)	(3)	(4)
	Protests		Share protests	
	All communes	Communes in news	All communes	Communes in news
State Repression	0.005**	0.028***	0.003***	0.014***
Cluster-robust	(0.005)	(0.001)	(0.005)	(0.001)
Corrected for spatial dependence	[0.009]	[0.004]	[0.010]	[0.004]
Wild bootstrap	{0.004}	{0.004}	{0.001}	{0.013}
Rainy Days of Anger	0.000	0.001	0.000	0.000
Cluster-robust	(0.858)	(0.530)	(0.918)	(0.562)
Corrected for spatial dependence	[0.858]	[0.602]	[0.919]	[0.631]
Wild bootstrap	{0.875}	{0.538}	{0.917}	{0.568}
State Repression × Rainy DoA	−0.001**	−0.008***	−0.001**	−0.0039***
Cluster-robust	(0.029)	(0.000)	(0.029)	(0.001)
Corrected for spatial dependence	[0.047]	[0.002]	[0.046]	[0.002]
Wild bootstrap	{0.026}	{0.002}	{0.031}	{0.001}
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Mean	0.002	0.010	0.001	0.005
Observations	15,290	3,620	15,290	3,620

Notes: The unit of observation is a commune-year. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Rainy Days of Anger' (DoA) is the number of rainy *Days of Anger* in the commune in the past 5 years, where a day is considered rainy if there was significant rain (above the historical mean). 'Protests' is an indicator for whether any protest-related RFA article is assigned to the commune in the four weeks following the *Day of Anger* (excluding May 20). 'Share protests' is the share of protest-related articles among all RFA articles assigned to the commune during the same window. Columns 1 and 3 include all communes; columns 2 and 4 restrict to communes ever mentioned in the news. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. P-values are shown in parentheses (clustered by 24 provinces), brackets (spatially corrected within 1 degree), and curly braces (wild cluster bootstrap). Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

B Alternative Explanations: Additional Results

Table B-1: Population, Age, and Education

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Population: Census 1998				Population: Census 2008			
	log Population ≤ 15	log Population ∈ [10,19]	log Population ∈ [15,64]	log Population density	log Population ≤ 15	log Population ∈ [10,19]	log Population ∈ [15,64]	log Population density
State Repression	0.013	0.002	0.001	0.002	0.038	0.027	0.026	0.031
	(0.036)	(0.040)	(0.042)	(0.039)	(0.038)	(0.040)	(0.044)	(0.042)
	[0.031]	[0.033]	[0.034]	[0.034]	[0.035]	[0.036]	[0.039]	[0.037]
	Age: Cambodia Socio-Economic Survey 1996-2016							
	Age ∈ [0,9]	Age ∈ [10,19]	Age ∈ [20,29]	Age ∈ [30,39]	Age ∈ [40,49]	Age ∈ [50,59]	Age ∈ [60,69]	Age ∈ [70,79]
State Repression	0.002	−0.003	0.001	0.001	−0.002	0.000	−0.000	0.000
	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
	[0.002]	[0.002]	[0.002]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
	Education: Cambodia Socio-Economic Survey 1996-2016							
	Can read	Can write	Speaking English	Speaking French	Lower secondary school	Upper secondary school	Bachelor	Years of education
State Repression	0.003	0.004	−0.004	−0.001	0.000	−0.001	−0.003*	0.003
	(0.007)	(0.006)	(0.005)	(0.001)	(0.001)	(0.002)	(0.002)	(0.070)
	[0.003]	[0.004]	[0.002]	[0.001]	[0.001]	[0.001]	[0.001]	[0.033]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations population	1,570	1,570	1,570	1,570	1,614	1,614	1,614	1,614
Mean population	7.822	7.307	8.039	4.870	7.716	7.378	8.276	4.906
Observations age	393,591	393,591	393,591	393,591	393,591	393,591	393,591	393,591
Mean age	0.208	0.237	0.181	0.128	0.103	0.074	0.042	0.020
Observations education	266,586	266,600	347,794	347,794	289,062	289,062	289,062	289,062
Mean education	0.710	0.736	0.065	0.019	0.017	0.027	0.020	5.762

Notes: The unit of observation is a commune (survey respondent) in the upper (middle and lower) row. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'log Population ≤ 15' is the log of the commune population below age 16, 'log Population ∈ [10,19]' is the log of the commune population between ages 10 and 19, 'log Population ∈ [15,64]' is the log of the commune population between ages 15 and 64, and 'log Population density' is the log of the commune population per commune area; regressions on age feature a dummy variable equal to 1 if the age of the individual is within the indicated interval and 0 otherwise. 'Can read' is a dummy variable equal to 1 if the individual is able to read a simple message, 'Can write' is a dummy variable equal to 1 if the individual is able to write a simple message, 'Speaking English' is a dummy variable equal to 1 if the individual can speak English, 'Speaking French' is a dummy variable equal to 1 if the individual can speak French, 'Lower secondary school' is a dummy variable equal to 1 if the individual's highest level of education is lower secondary school, 'Upper secondary school' is a dummy variable equal to 1 if the individual's highest level of education is upper secondary school, 'Bachelor' is a dummy variable equal to 1 if the individual's highest level of education is a bachelor's degree, and 'Years of education' is the individual's completed years of education. 'Mean' denotes the mean in communes with less state repression. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table B-2: Assets and Consumption

	(1) Rooms per capita	(2) log Farm value	(3) log Size of farm	(4) log Consumption per capita	(5) log Food expenditure per capita	(6) log Non-food expenditure per capita	(7) log Total expenditure per capita	(8) log Alcohol & tobacco expenditure
				All				
State Repression	−0.001	0.069	−0.050	0.003	0.011	0.011	0.007	−0.054
	(0.004)	(0.271)	(0.152)	(0.019)	(0.016)	(0.028)	(0.018)	(0.093)
	[0.004]	[0.220]	[0.123]	[0.016]	[0.014]	[0.026]	[0.016]	[0.095]
				Never moved				
State Repression	−0.008	0.266	0.051	0.016	0.029	0.037	0.021	−0.014
	(0.006)	(0.238)	(0.153)	(0.024)	(0.022)	(0.040)	(0.022)	(0.279)
	[0.006]	[0.209]	[0.119]	[0.025]	[0.022]	[0.047]	[0.023]	[0.219]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Survey-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean all	0.378	8.329	4.852	8.361	7.870	6.735	8.259	0.700
Observations all	52,222	68,938	68,938	77,201	77,105	77,119	77,205	49,336
Mean never moved	0.32	12.446	7.477	7.766	7.318	5.869	7.636	1.129
Observations never moved	11,241	13,659	13,659	18,745	18,735	18,720	18,747	6,153

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). Every cell constitutes a separate regression of the productivity measure on the dependent variable in the header using individual-level data. The row names define the sample used: 'All' includes the full sample, and 'Never moved' only includes individuals that never moved from the current residence. 'Rooms per capita' is the number of rooms in a house other than a kitchen, toilet or bathrooms divided by the household size, 'log Farm value' is the log of the cost (in Cambodian riel) of a similar plot of farm land had it been sold in the village today, 'log Size of farm' is the log of the area in square meters of a plot of land, 'log Consumption per capita' is the log of the monetary value (in Cambodian riel) of total household non-food and food consumption over the last twelve months divided by the household size, 'log Food expenditure per capita' is the log of the monetary value (in Cambodian riel) of expenditure on purchased and non-purchased (own production, wages in kind, gifts and free collection) food over the last twelve months divided by the household size, 'log Non-food expenditure per capita' is the log of the monetary value (in Cambodian riel) of in cash and in-kind expenditures on non-food items over the last twelve months divided by the household size, 'log Total expenditure per capita' is the log of the monetary value (in Cambodian riel) of food and non-food expenditures over the last twelve months divided by the household size, and 'log Alcohol & tobacco' is the log of the monetary value plus 1 (in Cambodian riel) of total consumption (purchased and own production, wages in kind, gifts and free collection) of alcohol and tobacco over the last twelve months. 'Mean' denotes the mean in communes with less state repression. Province fixed effects, a second-degree polynomial in latitude and longitude, and commune and individual characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table B-3: Poverty and Income Inequality

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Poverty rate (Head Count Ratio)		Poverty gap		Poverty severity		Gini coefficient	
State Repression	−0.009	−0.006	−0.005	−0.004	−0.003	−0.002	0.001	0.001
	(0.016)	(0.011)	(0.007)	(0.005)	(0.004)	(0.003)	(0.004)	(0.004)
	[0.015]	[0.010]	[0.007]	[0.005]	[0.004]	[0.003]	[0.003]	[0.004]
Pre-genocide commune characteristics		Yes		Yes		Yes		Yes
Observations	1,470	1,470	1,470	1,470	1,470	1,470	1,470	1,470
Mean	0.388	0.388	0.119	0.119	0.052	0.052	0.304	0.304

Notes: The unit of observation is a commune. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Poverty rate (Head Count Ratio)' is proportion of the commune population living below the poverty line, 'Poverty gap' is the ratio by which the mean income of the poor falls below the poverty line, 'Poverty severity' is the square of the poverty gap relative to the poverty line, and 'Gini coefficient' is the degree of income inequality in the commune. 'Mean' denotes the mean in communes with less state repression. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table B-4: Migration

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Returned 1979/1980		Returned 1979		Return after displacement		In village during KR	
				Alive during the Khmer Rouge period				
State Repression	0.004	0.011	−0.004	0.001	0.001	0.004	0.021	0.011
	(0.013)	(0.012)	(0.008)	(0.008)	(0.008)	(0.007)	(0.016)	(0.016)
	[0.012]	[0.013]	[0.009]	[0.009]	[0.007]	[0.007]	[0.014]	[0.014]
				Older than 18 during the Khmer Rouge period				
State Repression	0.007	0.018	−0.004	0.002	0.007	0.012	0.027*	0.008
	(0.015)	(0.016)	(0.010)	(0.010)	(0.010)	(0.009)	(0.017)	(0.016)
	[0.014]	[0.016]	[0.010]	[0.011]	[0.008]	[0.009]	[0.014]	[0.014]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Survey-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual characteristics		Yes		Yes		Yes		Yes
Mean alive during KR	0.219	0.205	0.163	0.150	0.071	0.062	0.426	0.415
Observations alive during KR	75,112	60,707	75,112	60,707	75,112	60,707	75,112	60,707
Mean older than 18 during KR	0.281	0.271	0.209	0.194	0.092	0.082	0.421	0.399
Observations older than 18 during KR	33,245	23,671	33,245	23,671	33,245	23,671	33,245	23,671

Notes: The unit of observation is a survey respondent. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). Every cell constitutes a separate regression of the productivity measure on the dependent variable in the header using individual-level data. The row names define the sample used: 'Alive during the Khmer Rouge period' includes respondents born before 1979, and 'Older than 18 during the Khmer Rouge period' includes respondents that were at least 18 years old in 1978. 'Returned 1979/1980' is a dummy variable equal to 1 if an individual returned to the current residence in 1979 or 1980 (and has not migrated since), 'Returned 1979' is a dummy variable equal to 1 if an individual returned to the current residence in 1979 (and has not migrated since), 'Returned after displacement' is a dummy variable equal to 1 if an individual who returned to the current residence in 1979 responded that the reason was because of being displaced, and 'In village during KR' is a dummy variable equal to 1 if the individual was in the current residence during the genocide. 'Mean' denotes the mean in communes with less state repression. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. Individual characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table B-5: Night-Time Lights and Public Investments

	(1) Maximum night-time light	(2) Any night-time light 2013	(3) Night-time light in 2013	(4) Market density	(5) Accessibility of the nearest health facility	(6) Radio station in commune
State Repression	−1.128	0.025	−0.216	−0.020	0.027	0.022
	(0.970)	(0.029)	(0.613)	(0.028)	(0.030)	(0.019)
	[0.805]	[0.018]	[0.458]	[0.032]	[0.033]	[0.018]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Controlling for 1992 value		Yes	Yes			
Observations	1,621	1,621	1,621	1,621	1,621	1,621
Mean	9.404	0.409	7.164	0.424	0.688	0.881

Notes: The unit of observation is a commune. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Maximum night-time light' is the highest observed mean luminosity in the commune, 'Any night-time light in 2013' is a dummy variable equal to 1 if the mean in 2013 was non-zero, 'Market density' is the number of larger business areas in the commune, 'Accessibility of the nearest health facility' is an index variable where 0 represents immediate access and 22 (the maximum) represents no access to the next health post, health center, or referral hospital in the commune, and 'Radio station in commune' is a dummy variable equal to 1 if there is a local radio station broadcasting in the commune. 'Mean' denotes the mean in communes with less state repression. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table B-6: Market Access, Public Infrastructure, and School Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Market access and public infrastructure							
	Distance to food store	Distance to bank	Distance to extension worker	Distance to market	Distance to agricultural market	% Pop with electricity	% Pop with piped water	% Pop with public hospital
State Repression	−0.337	−0.136	−1.159	−0.385	−0.217	0.008	−0.003	0.028
	(0.493)	(0.675)	(1.100)	(0.666)	(0.653)	(0.017)	(0.020)	(0.019)
	[0.493]	[0.645]	[1.010]	[0.620]	[0.591]	[0.014]	[0.013]	[0.019]
	School characteristics							
	Distance to school	Village with school	Director with degree	log School income per capita	Enrollment rate	# Teachers	Student-teacher-ratio	Number of classes
State Repression	0.060	0.081	0.002	0.041	0.881	0.573	0.601	−0.085
	(0.059)	(0.229)	(0.002)	(0.069)	(1.004)	(3.526)	(1.627)	(0.314)
	[0.074]	[0.170]	[0.002]	[0.058]	[0.941]	[3.286]	[1.647]	[0.274]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Survey-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean market access	6.272	10.698	18.123	7.060	7.190	0.370	0.272	0.119
Observations market access	3,593	3,665	3,724	3,684	3,614	3,812	3,812	3,027
Mean school characteristics	1.370	6.404	0.002	8.529	39.705	53.023	41.727	7.908
Observations school characteristics	1,593	1,621	1,543	1,436	4,518	1,592	1,592	1,592

Notes: The unit of observation is a commune. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Distance to x' is the distance in kilometers from home to the nearest x, where x=food store, bank, extension worker, market, and agricultural market, '% Pop with electricity (piped water) [public hospital]' is the percentage of the commune population with access to electricity (piped water) [public hospital], 'Distance to school' is the distance in kilometers from home to the nearest school, 'Village with school' is a dummy variable equal to 1 if the village has at least one school, 'Director with degree' is a dummy variable equal to 1 if the school's director has an advanced teaching degree, 'log School income per capita' is the monetary value (in Cambodian riel) of the total income earned by the school divided by the number of students enrolled in the school, 'Enrollment rate' is the number of students of a given age group in a given level of education divided by the population of that same age group, 'Teachers' is the number of teachers in a commune, 'Student-teacher ratio' is the number of students divided by the number of teachers per school, and 'Number of classes' is the number of classes per school in a commune. 'Mean' denotes the mean in communes with less state repression. Province fixed effects, a second-degree polynomial in latitude and longitude, and pre-genocide commune characteristics as defined in Table 2 are included in all regressions. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C Protest Classification Robustness

The main analysis classifies protest-related Radio Free Asia (RFA) articles using the keyword "protest" in the article URL. A concern with this approach is undercounting, since some protest-related stories may not include the keyword, which reduces variation in the protest outcomes.

To address this, we train a text classifier on the headlines and lead paragraphs of the 332 URL-identified protest articles and apply it to the remaining corpus. The classifier achieves 91 percent accuracy in a held-out sample and identifies an additional 209 protest-related articles. Using the expanded set, we reconstruct the two commune-level protest measures from the main analysis for the four weeks following the *Day of Anger*, excluding May 20 itself: an indicator for whether any protest is reported, and the share of protest-related articles among all RFA articles assigned to the commune during this window.

Table C-1 re-estimates equation (5) in the RFA-coverage sample using both the URL-based and classifier-based protest measures. The coefficients are similar across the two classifications, suggesting that URL-based undercounting does not bias the baseline estimates.

Table C-1: Predicted Protest

	(1)	(2)	(3)	(4)
	Protests		Share protests	
	URL-based	Classifier-based	URL-based	Classifier-based
State Repression	0.028***	0.022**	0.014***	0.011**
	(0.007)	(0.006)	(0.004)	(0.003)
	[0.010]	[0.009]	[0.005]	[0.005]
Rainy Days of Anger	0.001	0.001	0.000	0.000
	(0.002)	(0.003)	(0.001)	(0.001)
	[0.002]	[0.003]	[0.001]	[0.001]
State Repression × Rainy DoA	−0.008***	−0.006**	−0.004***	−0.003**
	(0.002)	(0.002)	(0.001)	(0.001)
	[0.003]	[0.003]	[0.001]	[0.001]
Pre-genocide commune characteristics	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Mean	0.009	0.013	0.004	0.006
Communes	362	362	362	362
Observations	3,620	3,620	3,620	3,620

Notes: The unit of observation is a commune-year. *State Repression* [equation (1)] equals one for communes with standardized wet-season rainfall below the provincial average during the Khmer Rouge period (1975–1977). 'Rainy Days of Anger' (DoA) is the number of rainy *Days of Anger* in the commune in the past 5 years, where a day is considered rainy if there was significant rain (above the historical mean). 'Protests' is an indicator for whether any protest-related RFA article is assigned to the commune in the four weeks following the *Day of Anger* (excluding May 20). 'Share protests' is the share of protest-related articles among all RFA articles assigned to the commune during the same window. The sample comprises communes ever mentioned in the RFA corpus (362 communes; 3,620 commune-years), corresponding to the RFA-coverage sample in Table 7. Columns (1) and (3) classify protest articles using the URL keyword; columns (2) and (4) use the expanded set from the text classifier described in Section 3. 'Mean' denotes the mean in communes with less state repression. Province fixed effects and a second-degree polynomial in latitude and longitude are included in all regressions. The pre-genocide commune characteristics are defined in Table 2. The data sources are described in Section 3. Standard errors clustered by 24 provinces are shown in parentheses and corrected for spatial dependence within 1 degree in brackets. Symbols reflect the significance level for spatially corrected standard errors: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

D   Questions from the Asia Foundation Election Survey 2003 and 2014

Table D-1: Support for Pluralism

Democracy preferred to strong leader	On some occasions, democracy doesn't work. When that happens there are people that say we need a strong leader who doesn't have to be elected through voting. Others say that even if things don't function, democracy is always the best. What do you think?
One can vote against the government	Some people say, "Even if we are not happy with the government, we cannot vote against it. They are the high authority." Other people say, "If you are unhappy with the government, you should vote for another party to let the government know you are unhappy." Which of these is closer to your view?
Not voted because told to vote	What is the most important reason why you want to vote? (not because she was told to)
Government and people are equals	Here are some different ways people think about the government. The first is that the people and government should be equals, and government should listen to the criticisms voiced by people. The second is that government should be like a father and the people like a child he must look after. The third is that the government is like a boss and the people are like workers who must obey. Which of these is closest to your view of what the government should be?
All political parties should hold events	Do you think that all political parties, even the ones most people do not like, should be allowed to hold meetings in your area?
Democracy empowers people	If a country is called a democracy, what does this mean to you? (Answer: People are empowered)
Women make own choice in voting	Do you think a woman should make her own choice for voting, or do you think men should advise her on her choice?
Women as a representative	Would you prefer to be represented by a man or a woman in the National Assembly?
Would like to see more women	Would you like to see more women as members of the National Assembly?
Reserved top list place for women	In the National Assembly elections, every party has a list of candidates for the province, but usually only the top two or three people on the list have a chance of being elected. Knowing this, if a woman were included on a list in one of the top three places would you be more likely to vote for the list or less likely to vote for it?

Notes: The table lists the individual questions included in Table A-8 under the category *Support for pluralism* and are extracted from the Asia Foundation Election Survey 2003 and 2014.

Table D-2: Voter Informedness

Know parties are different	What difference do you see, if any, between the different political parties in Cambodia today?
Can name representative	Many people are not sure of the names of their province's representative in the National Assembly. Can you name one of yours?
Know whether representative visited	As far as you know, have any of the candidates elected to the National Assembly who represent your province visited your area since the last National Assembly election?
Know role of parties in assembly	Different people have different ideas about what the people in the National Assembly do? What do you think they do?
Understands purpose of democracy	If a country is called a democracy, what does this mean to you? (Any answer)
Frequency: listen to radio	How frequently do you listen to radio?
Frequency: watch TV	How frequently do you watch TV?

Notes: The table lists the individual questions included in Table A-8 under the category *Voter informedness* and are extracted from the Asia Foundation Election Survey 2003 and 2014.

Table D-3: Local Civic Participation

Member of # civil associations (CA)	Here is a list of organizations. As I mention each, please tell me if you belong to it.
Took part in a meeting of a CA	Have you ever participated in a meeting of an association or group you belong to?
Helped reach a decision of a CA	Have you ever helped make a decision at a meeting of an association or group you belong to?
Local government affects my life	Now I'm going to ask you a question about the local commune government. Tell me, whose decisions affect your life more: the national government in Phnom Penh or the communal government in this town or village?
Would report election crime	If one of these problems were to happen in your area in the election, how likely would you be to report this problem – very likely, somewhat likely, somewhat unlikely or very unlikely?

Notes: The table lists the individual questions included in Table A-8 under the category *Local civic participation* and are extracted from the Asia Foundation Election Survey 2003 and 2014.

Table D-4: Trust

Trust in neighborhood	Now, speaking in general terms of the people from here, what do you think about people in this neighborhood are generally trustworthy?
Trust in general	Generally speaking, do you think that most people can be trusted?

Notes: The table lists the individual questions included in Table A-8 under the category *Trust* and are extracted from the Asia Foundation Election Survey 2003 and 2014.

Table D-5: Perception of Violence as a Problem in Cambodia

Biggest Problem in Cambodia: Violence	In your view, what is the biggest problem facing Cambodia? (Do not read responses out aloud)
Biggest Problem in Commune: Violence	In your view, what is the biggest problem facing your Commune? (Do not read responses out aloud)

Notes: The table lists the individual questions included in Table A-8 under the category *Violence* and are extracted from the Asia Foundation Election Survey 2003 and 2014.