Article



# Aid targeting in post-conflict Nepal

# Marco Nicola Binetti 匝

Institute of Intercultural and International Studies, Universität Bremen, Germany

# Martin C Steinwand 匝

Department of Government, University of Essex, UK

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#### Abstract

This study investigates the political underpinnings of aid allocations during Nepal's post-conflict transition. Were post-conflict aid allocations sensitive to civilian support for the rebels during the war, or driven by new electoral coalitions after the end of fighting? Constructing a municipal-level dataset, we leverage the geo-location of Nepalese army barracks prior to the conflict as instrument for civilians killed by the government, which in turn proxies government support. We find that rebel support significantly increased post-war aid allocations, while voting for the rebel party after the war did not.

#### **Keywords**

Foreign aid, Nepal, post-conflict reconstruction, rent seeking

## Introduction

After Nepal's civil war came to an end with the signing of the 2006 Comprehensive Peace Agreement (CPA), international aid began pouring in. Annual aid commitments from 2006 to 2013 rose to an average of US\$890 for each Napelese, a 24% increase over the last 5 years of the civil war. Yet not all areas of Nepal benefited equally. Rukum, a poor district in the Nepalese Hill Country (an area with mountain ranges below 3000 m elevation) was at the heart of the Maoist uprising that sparked the conflict. It received 19% *less* aid per capita during the reconstruction period than during the war, amounting to an annual inflow of just US\$478 per capita, well below the national average. In contrast, neighboring Dolpa district saw its aid commitments nearly quadruple, to an annual average of US\$1560 per capita.

What explains this stark difference? Dolpa, equally poor as Rukum (using nighttime light emissions as a measure of economic activity), is even more remote than Rukum. It borders Tibet, and around 80% of its territory lies above 3000 m. Yet there are political differences. Dolpa barely saw fighting during the civil war and by our measure (discussed below) its population did not actively

**Corresponding author:** Martin C Steinwand, Department of Government, University of Essex, Wivenhoe Park, Colchester, UK. Email: martin.steinwand@essex.ac.uk support the Maoist insurrection. However, its voters strongly supported the rebel's party CPN(M) (Communist Party of Nepal (Maoist)) in the country's first post-war elections to the Constituency Assembly in 2008. Some 58.1% voted for the Maoists, strongly outperforming the national vote share of 29.3%.<sup>1</sup>

This examples illustrate an important puzzle. How do we make sense of who receives foreign aid during the reconstruction period after the end of a civil war? Do past allegiances during the war matter, or are the post-war settlement and resulting new political cleavages more important? Perhaps aid allocations become more sensitive to people's needs, whether defined by the costs of reconstruction or broad indicators of social deprivation. In Nepal's Constituent Assembly elections of 2008, the CPN(M), received a surprising majority of the vote, winning in areas far beyond the heartlands of the rebellion. We therefore seek to answer the question whether post-conflict aid allocations benefited these new voters, or if they were more geared toward areas that supported the Maoists during the Civil War.

Post-conflict aid ideally helps to rebuild destroyed infrastructure (Binetti, 2023; Kreimer et al., 1998) and replenish physical capital (Kang and Meernik, 2005), and typically coincides with an uptick in economic activity (Collier and Hoeffler, 2004). It also can play a key role in addressing grievances that have fueled the conflict (Savun and Tirone, 2012).<sup>2</sup> Although experimental work has generated important insights about the effectiveness of local interventions (e.g. Fearon et al., 2009; Mansuri and Rao, 2004), much less is known about which population groups benefit from aid flows (Findley, 2018). This is because of data limitations and a lack of theory regarding the political economy of aid allocations. Outside of post-conflict settings, aid frequently is at risk of being captured by powerful political interests (e.g. Bueno de Mesquita and Smith, 2009; Winters, 2014). For post-conflict environments, there is surprisingly little work that looks at aid allocations and specifically aid capture. One exception is Haass and Ottmann (2017), who study the effect of powersharing agreements on corruption, conditional on the effect of unearned government income, such as aid. However, they find no evidence that aid plays a role in this relationship (but natural resource income does).

While post-conflict environments might differ from non-conflict cases, for example because donors systematically seek to bypass actors that are perceived as threat to political stability (Campbell and Spilker 2022), conflict heightens the role of distributional politics. Ideally, the peace process will create political cleavages that cut across particularistic interests of antagonistic groups (Reilly, 2013). While elections play an important role in establishing legitimacy for the new political order in post-conflict societies (Reilly, 2002), they also have distributional consequences. The successful enfranchisement of new population groups should also be associated with economic benefits accruing to wider cross-sections of society. It is in this context that we leverage foreign aid allocations to observe the distributional outcomes produced by Nepal's post-war reconstruction process and their political underpinnings, specifically focusing on electoral and wartime support of the CPN(M).

Nepal presents an ideal case to study how aid flows reach different social, economic, and political groups in a post-conflict setting and thus how they affect the prospects of political stability. The country did experience a major civil war (1996–2006) and relatively successful peace process. The reconstruction period is well defined as beginning with the 2006 CPA and the 2007 Interim Constitution, and ending with the devastating earthquake in 2015. The earthquake reshaped reconstruction needs and international aid flows and also broke an inter-party stalemate about the final political settlement, ushering into the adaptation of the 2015 Constitution. Nepal is resource poor and heavily aid dependent, as aid accounted for roughly one-third of government expenditure during the period.<sup>3</sup> It lacks geo-strategic importance for donors, making it likely that aid policies were not skewed toward non-developmental goals (Alesina and Dollar, 2000; Girod, 2012, 2015). Nepalese society is characterized by strong inequalities between the center (Kathmandu) and the periphery. These differences also run along ethnic, class and geographic lines. The Maoist insurgency that fueled the civil war drew on grievances associated with these cleavages. However, the different social dimensions of the conflict do not map perfectly into each other, making the country a fertile testing ground for exploring how aid allocations were affected by the support of local communities for the Maoist rebels vs. their voting behavior during the post-war elections. This is helped by the surprise victory that the rebel's Communist Party of Nepal (Maoist)—CPN(M)—achieved in the 2008 Constituency Assembly elections. Garnering nearly 30% of the vote, the party's success extended far beyond the heartland of the insurgency, suggesting the emergence of a new cleavage cutting across the social boundaries that marked the original drivers of support for the Maoist rebellion.

However, the country's reconstruction period is also characterized by political instability, with frequently changing governing coalitions. These have included the CPN(M) and its opponents during the conflict, the Nepali Congress and the Communist Party of Nepal (Unified Marxist–Leninist). Infighting, a lack of joint vision for Nepal's future, appeal to ethnic sensitivities, and a confrontational approach to politics all contributed to halting progress of the peace process (Cottle and Thapa, 2017), forming the background to weak economic recovery and continuing dependence of the Nepalese state on grants and concessionary loans from the international community (Frieden, 2012: 109).

This political instability suggests that ministers did not have enough time in power to organize an aid strategy that would reward their political supporters. However, the relative weakness of elected central government officials left a vacuum that empowered partisan elites elsewhere. In 2008, an all-party mechanism was created to centrally steer local planning on an ad-hoc basis (the old legal structure of elected local planning officials had collapsed in 2002). According to Acharya, Dhungana and Guragain, this system empowered "influential leaders of the parties, mostly represented by local elites" (Acharya et al., 2022: 5) to share projects among themselves, a division-of-spoils system known as *Bhagbanda*.

Is it plausible that in this environment parties were able to systematically capture reconstruction aid and deliver it to their supporters? Donors often use trust funds and other strategies in postconflict environments to bypass governments that are seen as insufficiently stable or lacking capacity (Campbell and Spilker, 2022). This in turn can undermine state-building goals (Barakat, 2009). However, aid that is delivered through non-state actors is subject to partisan capture at the local implementation stage (Murtazashvili, 2015). Frieden (2012) notes that in Nepal, faced with political instability, donors lacked a coherent strategy. In 2007 the central government set up the Nepal Peace Trust Fund. This was an attempt to exert more political control over reconstruction financing. It was initially well received by the donor community, but failed to mobilize grants at a large scale. At the same time, donor countries initiated the creation of the multi-donor UN Peace Fund for Nepal trust fund, which had comparable success in raising funds to the Nepal Peace Trust Fund. Ultimately, both funds supported similar projects (Frieden, 2012). It is likely that despite the additional layer of external coordination, the UN fund had to rely on local partisan structures for some of the local project delivery. The stranglehold of party elites on local project delivery was ultimately only broken after the new constitution in 2015 devolved considerable powers to the local level, and new local governments were elected in 2017.

The international donor community also did not try to bypass government authorities at a large scale. Between 2007 and 2017, on average only 33.6% of aid commitments were delivered through nongovernmental channels or multilateral institutions, with the rest given through public sector actors.<sup>4</sup> This suggest that a sizeable share of aid flows was at least potentially at risk of capture by partisan elites. While not direct evidence of aid capture, together these observations suggest that there was room for aid capture in post-conflict Nepal, mainly through the mechanism of partisan control of local projects under the *Bhagbanda* system. This article contributes additional, systematic evidence, by exploring patterns in the geo-coded aid record that tie aid allocations to rebel support during the civil war and voting for the CPN(M) in the Constituent Assembly elections.

Empirically, we utilize sub-national data on aid allocations in Nepal (AidData, 2017), individual-level casualty data (Joshi and Pyakurel, 2015) and district-level voting records for the 2008 Constituent Assembly elections (Election Commission of Nepal). As proxy for the population's wartime support for the Maoists, we use the share of civilians that were killed by the government, relative to casualties inflicted by the rebels. A likely source of confounding is economic and social grievances that were drivers of conflict, but as indicators of economic need are probably also associated with foreign aid. As an identification strategy, we rely on the pre-war geographic location of Nepalese Army barracks as an exogenous instrument for the number of civilians killed by the government during the civil war. We also employ a range of indicator variables to control for objective economic needs and the effects of wartime destruction. If the electoral process was successful in organizing distributional politics around broader cleavages, we would expect aid allocations to be associated with electoral support for the CPN(M) and other parties in the reconstruction period. If, on the other hand, allocations followed the narrower grievance-base pattern of the conflict, aid allocations should reward the localities that supported the Maoists during the conflict.

To preview our findings, the broad electoral support for the CPN(M) in the post-conflict elections appears to have not succeeded in securing aid allocations for its voters. Instead, there is a strong causal link between support for the Maoists and aid allocations. This is particularly pronounced for aid that is more susceptible to rent extraction, such as infrastructure aid.

This article makes a number of contributions. First, previous works find that peace agreements can be successful in producing sustainable peace if they pay attention to distributional justice (Druckman and Albin, 2011). In contrast, our findings highlight that elections might not be enough to broaden distributional politics in such a way as to overcome the more narrow cleavages that drove the conflict. Second, foreign aid constitutes an important source of income in post-conflict countries, and allocating aid to where it is needed most is a precondition for successful economic recovery. Our results show that allocative efficiency is not easy to achieve in politically sensitive sectors, even if a peace agreement and the new constitution formally acknowledge the need for greater equality. Finally, the study identifies political misallocation of infrastructure aid as a potentially important source of the often observed gap between the policy goal of achieving self-sustaining economic development and realized development outcomes.

In the following, we first provide a background discussion of the Nepalese civil war. We then turn to the existing academic literature on post-conflict development aid to articulate our central argument more fully. In the next section, we discuss data and methodological choices for the statistical analysis, followed by a presentation of the empirical results. We conclude with a summary of our findings.

## Fighting patterns and aid allocations in Nepal

Nepalese society at the beginning of the Maoist uprising in 1996 was characterized by strong social and economic divisions along a large number of cleavages. These included a geographic dimension, with Kathmandu as the center of economic and political activity, and less advantaged regions, in particular the Mid- and Far West. There were strong inequalities along caste and ethnic lines, as well as concentrated land holdings and leftovers of a feudal system that rewarded civil servants

with the right to exploit large tracts of land (Deraniyagala, 2005; Joshi and Mason, 2007; Lawoti, 2010, 2012; Sharma et al., 2014). Moreover, there existed strong gender disparities. At the same time, the country only recently had been set on a path to modernization, with the first multi-party elections held in 1991, ending monarchical rule. The elections had raised expectations about social improvements, which in turn went unfulfilled (Shakya, 2012). The relative contribution of these pervasive inequalities in Nepalese society to the outbreak of the civil war is contested. Commentators using qualitative narratives tend to highlight them as the driving force of the conflict (e.g. Deraniyagala, 2005). In contrast, more systematic statistical studies come to different results, attributing fighting activity variously to poverty and geographic remoteness although not inequality (Do and Iyer, 2010), geography and inequality (Murshed and Gates, 2005), and road density but not poverty or inequality (Acharya, 2010). Despite this mixed picture, it is a fact that the Maoist insurgency broke out in one of the most economically and socially deprived regions of the country, and quickly found strong support there. In addition, the programmatic demands of the CPN(M) insurgents centered on overcoming historic inequalities (Huang, 2016).

Prior to the civil war, spoils politics in Nepal was not based on membership in an ethnic group, but manifested itself in a number of ways. The rewards from holding power disproportionally went to privileged landowners, who benefited from a skewed distribution of land holding together with weak enforcement of tenant rights (Sharma et al., 2014), civil servants, and elites located in the politically and economic dominant Kathmandu valley.

The CPA from 2006 and the 2007 Interim Constitution reflected varied sources of division, and promised to address injustices toward "women, Dalit, indigenous people, Madhesi, oppressed, excluded and minority communities and backward regions", as well as ending discrimination based on "class, caste, language, gender, culture, religion and region" (Para 33 (d)). Power sharing was written into the Interim Constitution with a minimum one-third quota for women in the Constituent Assembly, and provisions for parties to "ensure proportional representation of women, Dalit, oppressed communities/indigenous peoples, backward regions, Madhesi and other Classes, as provided in law" (Para 63(4)).<sup>5</sup>

It is well documented by the literature that support for the CPN(M) strongly correlated with a sense of grievances toward elites and the government in the Kathmandu valley. For example, although the Maoists used strategic violence to intimidate local populations into supporting them, removing local elites by force and granting ownership rights to peasants who worked the land was highly popular among local populations (Lawoti, 2010). In fact, Maoist attempts at winning over the population directly sought to appeal to social rights, arguably playing an instrumental role in creating political activism among disadvantaged groups that has outlasted the end of the conflict (Huang, 2016). In the empirical analysis, we leverage individual level data on casualties during the civil war to construct a variable that captures local support for the rebellion. Described in more detail below, the variable allows us to estimate to what extent civilian support for the Maoists was rewarded with aid flows in the reconstruction period.

The main parties in power during the conflict were the Nepali Congress and the Communist Party of Nepal (Unified Marxist-Leninist)—CPN(UML). While fighting eventually encompassed most of Nepal, support for the CPN(M) and the government side was not evenly distributed. For example, the Maoists struggled to find support in the low-lying Terai, a region which historically has experienced cultural and economic discrimination and also harbored mistrust ofKathmandu elites (Kantha, 2010). Being aligned with neither the Maoist cause nor Nepal's main parties meant that the region lacked a voice during the peace negotiations. As a result, violent protests erupted among Madhesi groups in the region in the intermediate aftermath of the signing of the Interim Constitution in 2007. The protests succeeded in ensuring greater legislative presentation

of the Terai in the upcoming elections that year.<sup>6</sup> The case of the Madhesi provides an interesting control case within Nepal for how aid allocations are influenced by social grievances vs. support for the rebellion. The outbreak of Madhesi protests after the end of the conflict illustrates that the peace process did not automatically endeavor to address all grievances associated with the various cleavages of Nepalese society. Accordingly, we look at electoral support for regional Madehsi parties as a second instance of the link between electoral enfranchisement and distributional outcomes in terms of aid allocations.

## Theoretical framework and literature

Our research question lies at the intersection of two larger literatures. The first deals with the effectiveness of peace agreements in dealing with grievances and the creation of cross-cutting new cleavages around which more peaceful political competition can be organized. The second addresses the capture of foreign aid by government officials.

The literature on peace agreements identifies a tension between bringing former rebel groups into the mainstream political process, which risks validating group-based political divisions, and the need to build broader coalitions that cut across such divisions. Compared with other outcomes of civil war (such as a stalemate or a victory), peace agreements tend to improve the balance of political power between former contestants, as former rebel groups gain political recognition. Hartzell and Hoddie (2003) show that of 38 negotiated civil war settlements between 1945 and 1998, all except eight included political power sharing terms.<sup>7</sup> Peace agreements shape post-war political institutions, creating venues to "mitigate and channel societal competition", where "no single set of antagonists is capable of imposing its will" (Hartzell and Hoddie, 2007: 11). Problems may arise because power sharing increases the risk of permanently enshrining the very cleavages that were drivers of the conflict, hindering the development of national political parties, which could aggregate public opinion around other, non-particularistic policy issues (Reilly, 2002, 2013). Our research question addresses this tension in the case of Nepal. The surprisingly widespread electoral support for the CPN(M) suggests the creation of an electoral coalition that encompasses a broader cross-section of the population. Is this reflected in the allocation of reconstruction aid, or did original supporters of the Maoist rebellion benefit more?

It should be noted that distributional consequences of power sharing are just one of several factors which can contribute to post-conflict political stabilization (e.g. institutional design and elections: Edwards and Yilmaz, 2016; Hartzell and Hoddie, 2015; Joshi, 2010; Zürcher et al., 2013; transitional justice: Druckman and Wagner, 2019; power sharing: Binningsbø and Rustad, 2012; Hartzell and Hoddie, 2007; outside interventions and peacekeeping: Hoeffler, 2019; Lee, 2022; Walter et al., 2021). Our focus on distributional politics is motivated by our ability to leverage fine-grained geo-coded aid data to evaluate distributional outcomes.

The second set of literature relates political power structures to the capture of foreign aid. This literature is relevant because it informs our thinking about aid capture in Nepal's post-conflict environment. At the most general, there is an established body of work which shows that governments can capture aid for their own political or economic benefit (e.g. Briggs, 2014; Dreher et al., 2019; Jablonski, 2014). While the simplest motivation is straightforward rent-seeking, in the context of post-conflict politics, additional considerations arise. For the government, aid is a source of income that does not rely on taxation and can benefit political supporters (Bueno de Mesquita and Smith, 2009; Morrison, 2009). Mirroring the tension between particularism and democratic coalition building discussed above, aid allocations can either support broad coalition politics or narrowly reward former combatants. The political-economy literature on conflict and regime transitions suggests that foreign aid can be particularly beneficial in supporting stable broad coalition politics. Because foreign donor support is relatively reliable and increases the resources available for redistribution, it can help to overcome commitment problems and sustain the distributional compromises entailed in broad coalition politics (Acemoglu and Robinson, 2000; Dal Bó and Powell, 2009). An observable implication of this is that post-conflict aid flows should benefit larger groups of the population, superseding the group-based politics of grievance.

For Nepal, the CPN(M) was carried to victory in the 2008 Constituency Assembly elections by a coalition of voters that went well beyond the original supporting base of the Maoists during the civil war. If aid allocations followed the logic of supporting this broad coalition, we would expect that electoral support for the CPN(M) was associated with higher aid commitments to areas that voted in favor of the party. Hypothesis 1 summarizes this expectation:

**Hypothesis 1.** Greater vote shares for the CPN(M) are associated with higher aid allocations during Nepal's reconstruction period.

While this hypothesis sets out a case for aid allocations following electoral patterns, the alternative arises from more narrowly group-based politics. Governance structures in post-conflict societies are typically weak. The case of Nepal is certainly no exception, as illustrated by the *Bhagbanda* system. Weak governance structures mean that aid is at risk of elite capture. Haass and Ottmann (2017) show that power-sharing governments in post-conflict societies are prone to rent-seeking, and that this tendency is stronger for non-tax revenue such as foreign aid. In Nepal, the civil war pitched the Maoist rebels against the power of elites who controlled the central government. The post-war settlement formally included the CPN(M) in the democratic political process. If access to the levers of power meant rewarding their support base during the war, and not the broader coalition of voters that carried them to electoral victory, we would expect aid allocations to go toward the geographic regions in which the rebels found popular support:

**Hypothesis 2.** Stronger civilian support for the Maoist rebels during the conflict is associated with higher aid allocations during Nepal's reconstruction period.

As mentioned above, these predictions do not map well onto the Madhesi population group. The Madhesi overall did not support the Maoists and had no seat at the negotiation table during the peace talks. This exclusion suggests that the new political order was not designed with the interests of the Madhesi in view, and the outbreak of violent protests in 2006 confirms this. However, the protests succeeded in achieving explicit mention of the group in the 2007 Interim Constitution. The extent to which this success affected the distributional politics along the main electoral cleavages in Nepal is unclear. As discussed in the next section, we therefore treat voting for Madhesi parties as an important control variable.

## Empirical analysis

#### Data

To address our hypotheses we analyze geographically disaggregated data on aid allocations to 3983 municipalities (level 4 administrative units known as village development committees) during the years 2006–2013. The year 2006 marks the beginning of the reconstruction period with the signing

of the Comprehensive Peace Accord. Geocoded data is only available up until 2013. However, the great earthquake of 2015 fundamentally changed foreign aid needs, so we have aid data on essentially the complete post-war reconstruction period. We study aid allocations in the aggregate for this period, reflecting our interest in overall distributional outcomes. In addition, our main variables of interest (CPN(M) vote share and civilian support for the rebels) do not vary over time, preventing us from exploiting dynamic information in the aid data.<sup>8</sup>

#### Dependent variable

Our dependent variable is aid commitments measured as the log of US dollars per capita, drawn from the Government of Nepal's Aid Information Management System.<sup>9</sup> This allows us to match projects to municipalities. We focus on commitments instead of disbursements, because political influence on allocation decisions is more readily expressed at the commitment stage. In addition, the data coverage for commitments is more comprehensive. We sum up aid commitments over the entire reconstruction period and analyse a cross-section of data. There are a number of reasons for this. While it seems tempting to exploit the time-series cross-section nature of the aid data, our key independent variables are all measured during the conflict or a the beginning of the reconstruction period, as we discuss below. In addition, government coalitions in the aftermath of the conflict were short lived, and experienced frequent changes in partisan makeup. Given the time lags and program durations involved in aid allocations, this prevents us from mapping government partisan makeup onto aid allocations. Finally, as discussed in more detail below, our identification strategy for civilian support of the Maoist rebellion during the conflict relies on the historic deployment patterns of Nepalese government troops prior to the outbreak of civil war. Again, this does not lend itself to the analysis of the dynamics of aid allocations during the post-conflict period.

To gain additional analytical purchase, we break down total aggregate aid allocations into sectors that are less and more prone to political capture. We follow the insight of Donaubauer et al. (2019) that post-conflict aid tends to be effective in restoring social infrastructure but not economic infrastructure. Accordingly, we label as social aid allocations going into the education, health, social infrastructure, and government and civil society sectors, as defined by the OECD's Creditor Reporting System (and adopted by AidData). Infrastructure aid consists of allocations to the energy, communications, transport and storage, and water supply sectors. Our expectation is that political capture of social aid is relatively more difficult than infrastructure aid, as projects are often delivered by non-governmental organizations and tend to involve service provisions that can be monitored. In contrast, infrastructure projects typically involve private sector contractors and outputs are more difficult to observe, for example with respect to building materials used and quality of work. Figure 1 shows the geographic distribution of the three aid variables across Nepal at the municipality level. Immediately apparent is that the mountainous north receives the most aid per capita, whereas the Terai lowlands receive the least. In addition, infrastructure aid tends to be much lower than social aid.

## Independent variables—Maoist support

Our independent variables aim to capture political support during and after the civil war. As key indicator of local support for the cause of the Maoists during the conflict, we look at civilians killed by the government, relative to those killed by the Maoists. An important literature on the logic of military control during civil war establishes a link between military actions and civilian support for insurgency (Kalyvas, 2006). Governments target civilian populations if they have



Figure 1. Geographic distribution of aid allocations, 2006–2013, US dollars per capita (constant 2011).

incomplete military control, but also perceive the population to support the rebels. This is not a clean measure of civilians' attitudinal support of the rebellion, since some civilians are forced to join the rebel side or join for purely opportunistic reasons. However, it should be correlated with attitudinal support. In the context of Nepal, Huang (2016) argues that the Maoists consciously

and successfully worked to win support of the civilian population by creating governance structures that bypassed official institutions and that enjoyed a degree of success in achieving local and district-level representation of wide groups of society, as well as effective provision of public services, such as health clinics and schools. However, the author also acknowledges the strategic use of violence by the rebels against civilians. In contrast, the response of the army was heavy-handed, with reports of indiscriminate killings of civilians (p. 126). Joshi and Quinn (2017) argue that the Nepalese forces used social stereotyping for targeting civilians with similar social characteristics to confirmed Maoist rebels. The insights from both studies demonstrate that in areas in which a high number of civilian casualties was inflicted by government troops, relative to those by Maoists, (a) government troops perceived the population to be supporters of the rebellion and (b) the Maoists themselves did not have to use high levels of violence to secure support of the civilian population. Taken together, the relative share of civilian support of the rebellion.

A face validity check confirms this. In the core districts in which the rebellion had originated (Rolpa, Rukum, Gorkha, Sindhuli), the share of civilians killed by the government relative to those killed by Maoists was considerably higher (74.9%) than in the rest of the country (59.3%). These numbers are similar when using the larger set of districts in which the rebels had achieved territorial control at the eve of the army's intervention in 2001, which the government had defined as 'Sensitive Class A' (Sharma, 2006).<sup>10</sup> The data come from Joshi and Pyakurel (2015), who comprehensively record all casualties during the civil war, including the district in which the killing occurred.

## Identification strategy

A potential challenge inherent in our approach is the intertwining of a community's likelihood of being targeted by government troops during the civil war and its voting behavior in the post-conflict period. Specifically, while it is likely that during the conflict government forces focused their attacks on communities that had sympathies for Maoist insurgents, government attacks are likely to have also shaped communities' voting behavior in the post-conflict period. To mitigate this issue, we employ a two-stage least squares regression analysis, utilizing a set of exogenous instruments to proxy for the share of civilians killed by government forces.

To construct our instruments, we draw upon data from *The Nepal Conflict Archive*,<sup>11</sup> which documents the structure of the Nepalese army and Maoist forces spanning the period prior to the commencement of open hostilities through the conclusion of the civil war. Specifically, in developing our instrument, we examine the distribution of barracks of the Nepalese army throughout the country before 1996.<sup>12</sup> Leveraging this information, we compute for each district the number of battalions stationed within a 50 km radius of the centroid of the district. There are battalions in the dataset for which no location has been reported. The most likely reason for this is bureaucratic inefficiencies, and we treat this missingness as random.

To be a suitable instrument, the pre-war location of army barracks needs to be correlated with civilian killings, but have no direct effect on the post-war allocation of aid. Addressing the first point, there is an intuitive relationship between the location of an army's support bases and its ability to deploy and conduct operations. The empirical analysis confirms that the pre-war location of army barracks is a good predictor of civilian killings (reported in Table 3). For the second point, the exclusion restriction, there exist no statistical tests. However, it seems very unlikely that the pre-war location of barracks is directly correlated with post-war aid allocations. To see this, we need to evaluate the most likely pathway through which this exclusion restriction could be violated.



Figure 2. Nepal: districts with army barracks pre-2006.

One possibility would be that the Nepalese army strategically chose barrack locations in anticipation of future Maoist rebel activity. Since the most plausible marker of such a strategic choice would have been social exclusion, and social exclusion is also a driver of aid allocations, this would establish a direct link between barrack locations and aid allocations. This is a very unlikely scenario. Until 2000, the Nepalese state treated the insurgency as a matter for the police and only brought in the army when the violence could not be contained. This clearly indicates that counterinsurgency was not a driver of deployments prior to the civil war. A look at the map of pre-war barrack locations confirms this (Figure 2). Barracks were placed along borders and in areas around the capital. These are typical locations for an army that is concerned with safeguarding against external threats. Specifically, barracks were not clustering close to the center of the insurgency.

An second possibility is that the location of barracks to some extent was affected by Nepal's mountainous geography. Geography also would be correlated with poverty and therefore with aid allocation decisions. This would imply that remoteness affects aid allocations both through our theorized causal arrow (remoteness  $\rightarrow$  barrack locations  $\rightarrow$  civilian deaths during civil war  $\rightarrow$  aid allocations) and also through the needs-based nature of aid allocation decisions (remoteness  $\rightarrow$  poverty  $\rightarrow$  aid–allocations).

We have several indications that this is not the case. First, as shown on the map in Figure 2, some of the most mountainous districts at Nepal's northern border did have barracks, despite their difficult terrain. One example is Mustang district, which is the second-least populous district of Nepal. Its terrain on average lies 4000 m above sea level. The army's presence is most likely due to the existence of a high-altitude border crossing to the Tibetan highlands (the 4660 m high Kora Pass). A more systematic way to assess the geographic spread of the army's presence is to formally test for spatial clustering of army barracks. If the location of army barracks was primarily driven by features of geography, we would expect barracks to systematically cluster in neighboring districts with similar features. To test for this, we perform Moran's I tests on an indicator variable that is coded 1 if the army was present in a district and 0 otherwise. For several plausible spatial connectivity matrices we are unable to detect any significant evidence of spatial clustering.<sup>13</sup> We therefore conclude that army locations in pre-war Nepal were not significantly driven by geographic constraints.<sup>14</sup>

#### Independent variables—vote shares

The Maoists won a surprise victory in the 2008 Constituency Assembly elections, garnering nearly 30% of the vote. Their political appeal after the civil war therefore extended far beyond the



Figure 3. Geographic distribution of political variables.

heartland of the insurgency. To measure this post-war political support, we use district vote shares in the Constituency Assembly elections. Panels (a) and (b) of Figure 3 respectively show civilian casualties of government violence during the civil war and the CPN(M)'s postconflict vote share.

To identify political support for the Madhesi minority we tabulate the vote share of the two major parties representing this group, the Terai Madhesh Loktantrik Party and the Madhesi Jana Adhikar Forum. Its support base lies in the lowlands bordering India, as shown on panel (c) of Figure 3. While we do not have theoretically guided expectations about this variable, it forms an important control. The Madhesi issue did not map easily on the grievance-based politics of the Maoist insurrection, and despite the broader base of CPN(M) voting, the vote shares for both party blocks are strongly negatively correlated (r = -0.70). It therefore is an important possible confounder.

We chose not to control for the vote share of the main competitor party to the Maoists, the CPN(UML), in our main specification. By construction, party vote shares add up to one, and adding all major parties to the regression raises concerns about multicollinearity.<sup>15</sup> When we do include the CPN(UML) vote share, our results remain substantively unchanged, but the quality of our instrument is weakened.<sup>16</sup>

## Controls

Aid allocations in a post-conflict environment are also driven by reconstruction efforts, as well as direct economic needs of the population. Since these are correlated with the social grievances driving the conflict, they are potentially confounders for the effect of political support for the Maoists. We therefore include a set of controls designed to capture these factors. Beginning with civil war destruction, we are not aware of data directly recording damage to infrastructure and other physical destruction. Instead, we turn to two proxy measures. The first is the number of total casualties resulting from combat, based on the Joshi and Pyakurel (2015) data. Unlike for example targeted extra-judicial killings, open combat results in physical destruction of infrastructure. Combat also produces injured combatants, which in turn has economic consequences for the affected individuals, their families, and communities. The casualties variable taps into both physical reconstruction needs and economic harm owing to injury. As a measure of the direct economic

Statistic	N	Mean	Standard deviation	Minimum	Maximum
Total aid per capita (USD log)	3981	4.266	1.158	-4.605	9.846
Social aid per capita (USD log)	3981	4.059	1.120	-4.605	7.999
Infrastructure aid per capita (USD log)	3981	-3.85 I	2.571	-4.605	9.840
Civilians killed by govternment, percentage of civilian deaths	3954	0.602	0.154	0.176	0.875
Maoist vote share	3983	0.324	0.154	0.077	0.790
Madhesi parties vote share	3983	0.083	0.129	0.000	0.409
Total fatalities, average per municipality in district	3954	0.994	1.241	0.018	5.634
Change in economic activity 1996–2006	3981	0.090	1.442	-14.370	14.441
Economic activity 2006	3981	1.153	3.878	0.000	57.607
Average slope of area	3981	10.279	7.947	0.078	32.323
Average elevation of area	3981	1096.723	970.436	64.282	5429.177

#### Table 1. Overview of variables.

impact of the conflict, we rely on nighttime luminosity data (NOAA's version 4 DMSP-OLS, retrieved via AidData GeoQuery, Goodman et al., 2019). We subtract nighttime light emissions at the start year of the rebellion, 1996, from those at the end year, 2006. Negative effects of the conflict will result in relatively lower values, as economic activity either shrinks or grows at a slower pace than in unaffected areas.

To control for economic needs, we employ a mixture of economic indicators and topographic features. To measure economic activity in 2006, we use nighttime light emissions. If aid was allocated in a need-based fashion in the subsequent reconstruction period, more of it should have flowed to areas with less economic activity. As a very mountainous country, economic development in Nepal is also tied to topography. Remote mountain areas are difficult to reach and tend to be poor. From a need-based perspective we would expect those areas to receive more aid per capita than lower-lying areas. We capture topography using measures of the average elevation of the municipality, as well as the average slope (Shuttle Radar Topography Mission (SRTM) dataset (v4.1), retrieved via AidData GeoQuery, Goodman et al., 2019). Table 1 provides an overview of these variables, along with the other independent and dependent variables.

## Statistical model

We estimate cross-sectional models of the following form:

Aid Commitment<sub>i</sub> =  $\alpha + \beta_1$ Support Maoists During Conflict<sub>j</sub> +  $\beta_2$ Support Maoists Post Conflict<sub>j</sub> +  $\beta_3$ Support Madhesi Parties<sub>j</sub> +  $\gamma$ Controls<sub>i</sub> +  $\varepsilon_i$ ,

where *i* denotes municipalities and *j* districts. The variable  $\alpha$  is a common intercept and  $\varepsilon_i$  represents municipality level errors, which are clustered by district. For the instrumental variable analysis we are replacing the measure of Maoist support during conflict with instrumented results from the first-stage regression.

	Dependent variable:			
	Total aid (1)	Social aid (2)	Infrastructure aid (3)	
Political support				
Civilians killed by government, percentage of civilian deaths	0.591** (0.261)	0.247 (0.203)	2.448*** (0.827)	
CPN(M) vote share	0.341	0.355 (0.326)	1.109	
Madhesi parties vote share	0.664	I.364*** (0.382)	-3.009*	
Controls: reconstruction need	(0.000)	(0.002)	()	
Total fatalities	-0.071* (0.040)	-0.071** (0.035)	-0.083 (0.070)	
Change in economic activity 1996–2006	0.004 (0.011)	0.023 <sup>**</sup> (0.010)	-0.035 (0.029)	
Controls: economic need				
Economic activity 2006	-0.011** (0.006)	-0.016*** (0.005)	0.030** (0.013)	
Average slope of area	0.043 <sup>***</sup> (0.010)	0.058 <sup>***</sup> (0.011)	-0.056 <sup>*</sup> (0.033)	
Average elevation of area	0.0002	0.0002	-0.0001 (0.0001)	
Constant	3.195***	2.984***	-4.669*** (0.450)	
Observations R <sup>2</sup> Adjusted R <sup>2</sup>	3952 0.194 0.193	3952 0.236 0.234	3952 0.036 0.034	

**Table 2.** Ordinary least squares—per capita aid by municipality (US dollars, logged) and political support; standard errors clustered on district.

Note: \*p < 0.1; \*\*p < 0.05; \*\*\*p < 0.01. CPN(M), Communist Party of Nepal (Maoist).

## Results-OLS

We begin with estimating the relationship between aid allocations and key independent variables using ordinary least squares (Table 2) and then an instrument for civilian casualties with the proximity to military barracks prior to onset of the conflict (Table 3). Standard errors are clustered at the district level to account for correlation of error terms within districts.

Starting with the non-instrumented results in Table 2, model 1 uses total aid allocations as dependent variable, whereas models 2 and 3 subset the data and use social sector and infrastructure aid. The share of civilians killed by the government is our indicator for rebel support during the conflict. More support for the rebellion is associated with greater total aid allocations (model 1), lending support to hypothesis 2. Comparing with models 2 and 3, we see that this relationship is driven by infrastructure aid, as social aid is not statistically significant. This is in line with our prior expectation that infrastructure aid is more susceptible to political capture. The substantive effects are sizeable.<sup>17</sup> For infrastructure aid, a one percentage point increase in the share of civilians killed by the government is associated with an average increase in infrastructure aid of 2.5%. For

	Dependent variable:			
	Total aid (1)	Social aid (2)	Infrastructure aid (3)	
Political support				
Civilians killed by government, percentage of civilian deaths	2.532***	1.396*	7.360***	
	(0.754)	(0.742)	(2.005)	
CPN(M) vote share	0.133	0.232	0.583	
	(0.400)	(0.307)	(1.258)	
Madhesi parties vote share	1.103	I.624***	-1.897	
	(0.743)	(0.419)	(2.357)	
Controls: reconstruction need				
Total fatalities	-0.120**	-0.100**	-0.206*	
	(0.049)	(0.046)	(0.106)	
Change in economic activity 1996–2006	-0.014	0.012	-0.082	
	(0.025)	(0.017)	(0.063)	
Controls: economic need				
Economic activity 2006	0.001	-0.009*	0.059***	
	(0.005)	(0.005)	(0.019)	
Average slope of area	0.034***	0.052***	-0.080***	
	(0.013)	(0.014)	(0.028)	
Average elevation of area	0.0002	0.0002	-0.0001	
-	(0.0001)	(0.0001)	(0.0001)	
Constant	2.193***	2.391***	-7.204***	
	(0.474)	(0.414)	(1.452)	
Weak instruments, F-statistic	18	18	18	
Wu–Hausman, þ-value	0.0059	0.11	0.017	
Observations	3952	3952	3952	
R <sup>2</sup>	0.155	0.221	-0.015	
Adjusted R <sup>2</sup>	0.153	0.219	-0.017	

**Table 3.** 2SLS—per capita aid by municipality (US dollars, logged) and political support; civilians killed instrumented with number of battalions within a 50 km radius; standard errors clustered on district.

Note: \*p < 0.1; \*\*p < 0.05; \*\*\*p < 0.01. CPN(M), Communist Party of Nepal (Maoist).

total aid the effect size is smaller, with a 0.6% increase in aid for each additional percentage point in the share of civilian casualties caused by the government.

Turning to post-conflict electoral support, vote shares for the CPN(M) in the Constituency Assembly elections are positively related to aid commitments. Again, the effect size is largest for infrastructure aid and smaller for total aid and social aid. However, these results are not statistically significant. We therefore have no evidence for Hypothesis 1. Together with the positive findings on civilian deaths, this suggests that aid allocations in the post-conflict period in Nepal did not reward the unexpectedly broad electoral coalition that supported the CPN(M), but were instead more narrowly targeted toward the support base of the Maoists during the conflict.

The last political influence variable is the vote share of Madhesi parties. Although the Madhesi parties' vote share is not statistically significant in the total-aid specification (model 1), this aggregate null effect masks pronounced sector-specific patterns. In the social-aid model (model 2), a one-percentage-point increase in Madhesi support raises commitments by 1.4%, an effect that is

statistically significant at the 5% level. In contrast, the infrastructure-aid model (model 3) indicates that the same increase lowers commitments by 3.0%, although the effect is only marginally significant (p < 0.1). The difference between the effects of Maoist wartime support and voting for Madhesi parties illustrates the continuing special political status of the Madhesi region after the end of the civil war. Aid flows to these districts were targeting the provision of social goods and not infrastructure projects, with their potentially more lucrative political payoffs from rent extraction, suggesting a lower degree of political capture.

Looking at the controls, the variables proxying for reconstruction needs do not behave as expected. The number of total battlefield fatalities is associated with a reduction in aid allocations across aid types, not an uplift. Changes in economic activity during the civil war period do not significantly affect total aid and infrastructure aid allocations, but they have a positive and statistically significant association with the provision of social aid. Again, this is against expectations, as areas in which economic activity was suppressed due to fighting should have received more aid.

In contrast, the variables capturing general economic conditions behave as expected. Poorer areas and those disadvantaged by geography, measured in terms of steepness of terrain, receive more aid, both in aggregate terms and specifically for social aid. The exception is infrastructure aid, which is higher in economically more active areas and lower in mountainous municipalities. This pattern probably reflects several factors. First, remote mountainous areas may not be suitable for large-scale infrastructure investments. Second, given the high costs of infrastructure projects, areas with greater economic productivity might be prioritized when deciding where to enhance infrastructure. Finally, considering the potential for political capture, it is not surprising that infrastructure aid is not allocated purely based on need. Average elevation does not exhibit any statistically significant relationship with aid allocations across aid types.

#### Results—instrumental variable regression

While the ordinary least squares (OLS) analysis establishes an association between aid allocations and support for the Maoists during the civil war, even when controlling for post-conflict voting and economic need, there might be unobserved confounders that drive both wartime support for the Maoists and post-war aid flows. For example, if economic controls do not completely capture economic deprivation, which was an important source of popular grievances underlying the civil war, this might bias the coefficient for Maoist support upward. As discussed above, we instrument the measure of Maoist support, civilians killed by the government, with the number of Nepalese army battalions stationed within 50 km of a district centroid prior to the onset of the conflict. Table 3 reports results from the two-stage least squares (2SLS) estimation.

Diagnostic tests confirm the appropriateness of our instrumentation strategy.<sup>18</sup> Beginning with the number of civilians killed by the government, all coefficients keep their signs, but estimated effect sizes increase considerably. In addition, the relationship between wartime support for the Maoists and social aid now just falls short of the 5% level of statistical significance. The exogeneity of our instrument allows us to interpret the results causally: for total aid, a one percentage point increase in the share of civilians killed by the government causes an increase in aid allocations by 2.5% (up from 0.6% under OLS). For infrastructure aid, the same effect is now a large 7.4% increase (2.4% under OLS). And for social aid, the weakly statistically significant effect amounts to a 1.4% uplift in allocations.

For the remaining variables, moving from OLS to the instrumented analysis does not substantively change recovered patterns, with one exception. The vote share for Madhesi parties was previously weakly statistically significant and now loses all statistical significance for infrastructure aid (model 3).

## Robustness

In the main analysis above, we account for possible correlation of errors by using robust standard errors that are clustered on the district level. As robustness checks, we now consider additional plausible error structures and data-generating processes. The strong geographic patterning of aid allocations raises the possibility that resources allocated to one municipality may be influenced by allocations to neighboring areas or driven by unobserved factors that may be spatially correlated. To guard against this possibility, we re-estimate the instrumental variable (IV) models incorporating a spatial-autoregressive combined (SAC) data-generating process. The SAC process accounts for direct spatial spillovers between neighboring units of the dependent variable and features spatially correlated error terms. We use queen contiguity as connectivity criterion and row-standardize the resulting spatial weight matrix. The results remain substantively unchanged, although the coefficients for civilians killed decrease in size and are estimated with less certainty (Table A4 in the Online Appendix).<sup>19</sup> This is not surprising, given that the SAC assumption imposes considerable structure on the data. This introduces a risk of overfitting the model.<sup>20</sup>

Our data structure suggests an additional source of correlation in the error terms. We measure aid allocations on the municipal level, but key explanatory variables, such as vote shares and number of civilians killed by the government, are only available at the district level. To account directly for the nesting of municipalities within districts, we estimate hierarchical versions of our IV models, including district-level random effects (RE, Table A5 in the Online Appendix). Again, our findings are robust to these changes and remain substantively the same.<sup>21</sup>

Overall, our results hold up against specifications that impose error structures at the district level (RE, clustered standard errors) and the local level (SAC), increasing the confidence in our findings.

## Conclusion

This article looks at the political underpinnings of aid allocations in post-war Nepal. While aid has an important role to play in reconstruction, it also has a redistributional dimension. We argue that aid that is directed toward addressing grievances underlying the conflict has the potential to pacify groups who were actively involved in the fighting and therefore contributes to political stability. At the same time, organizing cleavages that cut across the narrower interests of such groups can help to overcome divisions from the past. Looking at foreign aid in post-conflict Nepal allows us to explore which distributional dynamic won out. If aid allocations went toward areas supporting the rebellion, the narrower vision prevailed. However, if aid allocations were sensitive to the broader electoral success of the CPN(M) in the first post-war elections of 2008, we would witness the emergence of a broader electoral cleavage.

To explore these questions we construct a geo-coded dataset that brings together municipal aid allocations, civilian deaths inflicted by the government as measure of rebel support, electoral results of the 2008 Constituency Assembly elections, and a number of controls for economic and reconstruction needs based on casualties data, nighttime light-emissions and geographic features of the affected municipalities. In addition, we instrument civilian deaths by the government with the proximity to army barracks from the pre-war period.

Our results show that in a simple regression wartime support for the rebels is associated with higher aid allocations in the reconstruction period. Once we instrument for rebel support, thus shutting down potential causal pathways that connect economic grievances with both rebel support and post-war aid, these results strengthen. We therefore have strong evidence that post-war aid in Nepal did in fact systematically reward former supporters of the Maoist rebellion, with the alternative vision of a new electoral alliance driving aid allocations receiving no empirical support. As face validity check, we further break down aid into social-sector and infrastructure aid. As expected, effects of rebel support on aid allocations are stronger for infrastructure aid, which is known to provide greater opportunities for rent seeking. We also can show that voting for parties supporting the Madhesi minority in the Terai was associated with higher aid flows, but only for social-sector aid. This indicates that Nepalese post-war governments, who did not include Madhesi parties, were sensitive to social unrest in the Terai in the post-war period.

While distributional justice plays an important role in underpinning the success of peace agreements, our work highlights that different distributional arrangements can be compatible with achieving this outcome. The aid flows toward former rebel strongholds during Nepal's reconstruction period certainly were justified given the social and economic grievances that provided the fuel for the rebellion. At the same time, building a successful political order also depends on transcending divisions of the past and making the political system sensitive to the needs of the population going forward. Despite broad electoral support in the 2008 elections, the CPN(M)'s success was not the vehicle to make progress in this direction, at least when judging distributional outcomes by aid allocation patterns.

For Nepal, politics took a decisive turn in reaction to the devastation brought about by the 2015 earthquake, which ushered in the final constitutional settlement later that year. Subsequent elections in 2017 and 2022 have resulted in more stable governing coalitions, compared with the tenure of prime ministers in the reconstruction period, which frequently lasted less than a year. The distributional consequences for aid allocations in this maturing political system would be an interesting subject for future research.

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#### **ORCID** iDs

Marco Nicola Binetti D https://orcid.org/0000-0003-2037-6454 Martin C Steinwand D https://orcid.org/0000-0002-4218-0164

#### Supplemental material

Supplemental material for this article is available online.

#### Notes

- 1. In Rukum 70.6% of voters supported the CPN(M).
- 2. Although there is evidence that in the short-run aid inflows can increase social unrest in weakly governed communities (De Juan, 2020).
- Source: Organisation for Economic Co-operation and Development International Development Statistics, https://data.worldbank.org/indicator/DT.ODA.ODAT.XP.ZS?locations=NP, accessed 11 April 2024.
- Table A1 in the Online Appendix shows the breakdown by year. Note that in 2006, the year of the peace accord, the bypassing share was still 78.4%.
- 5. The 2015 Constitution which replaced the Interim Constitution retained these provisions.
- New York Times, 1 February 2007, accessed on 10 May 2020 at https://www.nytimes.com/2007/02/01/ world/asia/01nepal.html.
- 7. Six out of those eight at least featured territorial power sharing terms.
- Aggregation also has the advantage of smoothening out short-term variation in aid allocations that is due to idiosyncrasies, such as donors attributing all aid commitments of multi-year programs to the reporting year and bureaucratic delays.

- AidData. 2016. <u>NepalAIMS\_GeocodedResearchRelease\_Level1\_v1.4.1</u> geocoded dataset. Williamsburg, VA and Washington, DC: AidData.
- 10. With a share of civilians killed by the government of 73.9%.
- 11. https://nepalconflictreport.ohchr.org/html/intro/introduction.html, accessed on 8 December 2023.
- 12. Specifically, for each battalion in the dataset we identify the last known location of its barrack before 1996.
- 13. Test statistics and significance levels (based on 10,000 Monte Carlo draws) are as follows: queencontiguity, I = -0.033159, p = 0.5882; queen-contiguity row-standardized, I = -0.044473, p = 0.6432; inverse-distance based on district centroids, -0.044473, p = 0.6438.
- 14. For an additional discussion of socio-economic variables being unrelated to barracks placement see section A2 in the Online Appendix.
- 15. Including the variable increase the variance inflation factor, a formal indicator of multicollinearity, of the Madhesi and CPN(M) variables to levels considered problematic by some authors (Fox and Monette, 1992; Menard, 1995). See Table A2 in the Online Appendix.
- 16. Table A3 in the Online Appendix.
- 17. Note that regression coefficients are not directly interpretable as marginal effects because the dependent variables are logged.
- 18. The *F*-statistic from the first stage is 18. A value of F > 10 is the common gauge for rejecting that an instrument is weak. The Wu–Hausman test for endogeneity of regressors rejects that the OLS specification is preferred over the instrumented version for total aid and infrastructure aid.
- 19. For social aid, the coefficient drops just below the 0.1 level of significance.
- 20. An indicator of this is the positive estimate for spatial dependence on the dependent variable ( $\rho > 0$ ) and the negative estimate for spatial correlation of errors ( $\lambda < 0$ ).
- 21. Coefficients for civilians killed increase two- to threefold in size. This could be the result of observed or unobserved heterogeneity at the district level, or stem from attenuation bias introduced by aggregating independent variables up to the district-level. We prefer the more conservative 2SLS results because random effects models give more weight to between-district variation and rely on the assumption of no correlation between covariates and district effects.

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