

The Maoist Insurgency in Nepal and the Political Economy of Violence*

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Abstract

This paper studies the incidence of political violence associated with the Maoist insurgency in Nepal. I take a cross-sectional approach where the unit of analysis is the district, and dependent variable is total killings by state and Maoists normalized by district population. I find no evidence that political and economic grievances are linked to the incidence of political violence. There is also very little evidence that district prosperity or political ideology are associated with the incidence of violence. On the other hand, I find that the intensity of violence was greatest in the Midwestern districts and in districts with low road density. Historical evidence suggests that the dummy variable for Midwestern districts that appears significant and robust reflects the political entrepreneurship of leftist leaders more than half a century ago. The results support a theory of conflict that treats an insurgency as analogous to a profit maximizing firm.

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1 Introduction

What were the causes of insurgency in Nepal? There have been two approaches to answering this question. In one line of research, studies such as Murshed and Gates (2005) and Bohara, Mitchell and Nepal (2006) have used cross-sectional regression techniques to predict the effect of poverty, inequality, rough terrain, and ethno-linguistic divisions on the intensity of political violence. In the other approach, historical analyses have highlighted the incentives of rebel leaders and the failed policies of the Nepali government to suggest that politics has played the primary role. Typical studies of this kind include Thapa (2002, 2003) and Whelpton (2005).

Both approaches have their advantages and shortcomings. While the cross-sectional studies have focused on reasons why individuals may choose to commit acts of political violence, they have ignored the important role that political parties and leaders play in organizing and instigating conflict. The qualitative studies, on the other hand, treat the insurgency as if it was the outcome of a number of possible causes, none of which are disproved to be explanatory.

This chapter combines insights gained from the two approaches to evaluate the causes of insurgency in Nepal. I use multiple regression analysis to test hypotheses that are motivated both by observations specific to Nepali politics and by general findings related to civil conflict. Specifically, I take a cross-sectional approach where the unit of analysis is the district and dependent variable is total killings by the state and Maoists divided by district population.¹

There is a considerable degree of sub-national heterogeneity that may account for the variation in conflict intensity across districts. In line with existing theories of conflict, I hypothesize that less prosperous districts show greater conflict intensity because recruiting guerillas is less costly in poorer economic conditions; that districts with rougher terrain are more conducive to fighting because insurgents can better hide from government forces in these conditions; that leftist ideology is associated with greater conflict intensity owing to the adversarial relationship between a centrist state and more extreme

¹This is also the dependent variable of choice in a working paper by Do and Iyer (2006). On the other hand, Bohara, Mitchell and Nepal (2006) analyze killings by Maoists and killings by the state separately, and Murshed and Gates (2005) study total killings by the state and Maoists in relation to the Maoist insurgency but they do not normalize these figures by district population. Since Tiwari (2008) finds in his contribution to this volume that the choice of dependent variable appears to be important, I choose one that I think best reflects frequency of violence.

citizens; and that districts that have been neglected by the state and where economic inequality is high will be propitious to insurgency because rebellion is one of the few ways by which the politically and economically downtrodden respond to what they perceive as the injustices of state and society.

I also test hypotheses that emerge from a literature that is more specific to the Nepalese context. I hypothesize that districts where polarization between the Bahun-Chhetri caste group and other castes is greater, exhibit greater incidence of violence; that if not caste, then linguistic polarization is associated with higher conflict intensity; and that areas where leftist leaders developed operations over half a century ago were more propitious to conflict.²

To measure leftist ideology, I construct an index as follows. A district receives one point for each seat won in a neighboring district by the United People’s Front (UPF) party in the 1991 general elections, and three points for each seat won in that district itself.³ Because this variable takes into consideration the possibility of regional spillovers, it serves as a better measure of the political activity than simply a dummy variable indicating UPF success. The districts where leftist leaders successfully developed operations lie mostly in the Midwestern development region, particularly the hills (see Figure 1). Although there is some positive correlation between the ideology score and a dummy variable indicating whether or not a district falls in the Midwest, the relationship is not statistically convincing. Thus, there is no reason to be concerned that the ideology score actually captures the political entrepreneurship of leftist leaders, or that the Midwestern dummy captures leftist ideology, even though this is a possibility that has been hinted by previous authors (see Thapa, 2003).

Neither the electoral success of the UPF nor the constructed measure of leftist ideology appear to be correlated with measures of economic prosperity, grievances or caste and ethnic polarization. In particular, the left was not more successful in poorer districts,

²Throughout this paper the terms left or leftist as political characterizations refer exclusively to the ultra-left and its ideology. The ultra-left includes the Communist Party of Nepal (Maoist), the United Peoples Front, and other descendants of Mohan Bikram Singh’s faction of the Communist Party of Nepal (CPN) that were not mainstream constitutional parties throughout the 1990s (see next section for more on this). Of course, one may object by arguing that the Jhapali communists were just as extreme, if not more extreme, than the ideologues of the Singh faction. However, the political descendants of the Jhapali faction (essentially the one that included the Mainali brothers – Radha Krishna and Chandra Prakash) did accept the Constitution of 1990 and were represented by the CPN (United Marxist Leninist) and the CPN (Marxist Leninist) – both constitutional parties. Therefore, for the purpose of this paper I consider them less extreme than the descendants of the Singh faction.

³The UPF was the mother party of the CPN (Maoists).

those with greater land inequality, those that received fewer funds for development, or those where polarization between Nepali speaking Bahun-Chhetris and non-Nepali speaking castes was higher. This in itself is an interesting finding, but a more important consequence of the observation is the doubt that it casts over the hypothesis that party ideology is derived from the social and economic class of its members. Whatever the intentions of the leftist leaders of Nepal, their emergence does not seem to be a natural outcome of the grievances of the poor and neglected.

The results show only weak evidence that ideology is correlated with conflict intensity once other factors are taken into account. They also show no evidence of a causal relationship between measures of political and economic grievance (such as land inequality and development budget allocation) and the frequency of violence. Further, there is no evidence that after controlling for politics and geography, districts that may have had high caste and ethnic cleavages saw more conflict.

The only robust significant variables are those associated with political activism and geography. First, districts in the Midwestern development region witnessed more violence than other districts even after controlling for other factors. Second, fighting was more intense in districts that were less penetrated by roads, and those that were more forested. Third, after controlling for road density, economic prosperity is not a significant predictor of conflict intensity. Since road density and economic conditions are correlated, rebel leaders had access to areas where operating an insurgency had low costs both in terms of the technology of conflict and the recruitment of soldiers. Nevertheless, the important cost variables seem to be geography and remoteness, less so guerilla wages.

I take these results as evidence against the claim that class, caste or ethnic grievances were at the root of the Maoist conflict. Rather, the data seem to favor the hypothesis that many of the villagers who joined the insurgency probably did so out of a necessity associated with their own security (i.e. they would have a greater probability of being killed if they did not join) or for personal economic reasons such as the desire for food, shelter and clothing – things that were promised by the rebel leaders to their soldiers, and which these recruits may not otherwise have had in their lives as peasants.

2 Historical Background

The history of left-wing politics in Nepal dates back to 1949, the year that the Communist Party of Nepal (CPN) was formed by Pushpa Lal Shrestha with four of his associates in Calcutta (Shah 1990:2:239). The party's platform in the decade of the 1950s included radical land reforms, the abrogation of the 1950 Treaty with India and opposition to the United States (Whelpton 2005:94). Campaigning on this platform, the party was rather unsuccessful in the 1959 general elections, securing only four of 109 seats in parliament (Joshi and Rose 1966:296). After the ideological split of the Chinese and Russians in the 1950s, the CPN correspondingly split into two factions with the pro-Russia faction, led by Keshar Jung Rayamajhi, declaring its support for King Mahendra's coup of 1960. The pro-China faction, led by Shrestha, opposed the royal coup but remained relatively quiet in the Kathmandu political scene until the 1970s.

Throughout much of the 1960s, Nepali politics reflected little more than a power struggle between a few prominent Bahun and Newar leaders and King Mahendra. Yet while the politics of that era continued to become increasingly concentrated at the center, a young Communist Party cadre by the name of Mohan Bikram Singh was working hard in developing a base of left-wing activists in the remote Midwestern hill districts of Rolpa, Rukum and Pyuthan. Singh's strategy was to take advantage of "local grievances, particularly the decline in living standards, which the inhabitants [of these districts] reportedly ascribed to the government's suppression of hashish production in the 1970's" (Whelpton 2005:203). He was extremely successful as, for example, in the village of Thawang, where he campaigned, 700 out of 703 voters voted against the Panchayat system (essentially a system of absolute monarchy) in the referendum of 1980.

In 1974, Singh and his protege, Nirmal Lama, orchestrated a second split from the pro-China CPN faction to form the CPN (Fourth Convention). The split came as a result of disagreements between radicals and moderates on whether tactical allegiance with the Nepali Congress against King Mahendra was in the interest of the party. The Singh-Lama faction, representing the more radical group, demanded a constituent assembly instead of the mere restoration of parliamentary democracy, which Congress had been pressing for.

In the mid 1980s the Singh-Lama faction again split into three smaller groups—the CPN (Masal) led by Singh, the CPN (Mashal) led by Pushpa Kamal Dahal (aka

Prachanda), and another that retained the original party name. It was then that the Fourth Convention lost its place at the forefront of leftist politics in Nepal. Rather, in the People's Movement of 1990 it was a coalition of seven small parties, all descended from the original CPN, that represented the left in efforts to overthrow absolute monarchy. After the restoration of democracy, this coalition ran under the banner of the CPN (United Marxist-Leninist) and emerged as the second largest party in the 1991 general elections (the largest being the Nepali Congress). Singh's men, having been sidelined, re-united to form a subversive revolutionary organization known as the Unity Centre, and participated in the elections under the umbrella of the United People's Front (UPF). The Unity Centre was led by Prachanda, while the UPF was governed by Nirmal Lama and Baburam Bhattarai, the inheritor of Singh's legacy and leader of what was formerly the Masal faction.

Notwithstanding one final split in 1994 when Nirmal Lama usurped control of the UPF, it was the Unity Center that first represented insurgent communism in Nepal. Since the election commission officially recognized Lama's less radical faction as the legitimate UPF, the Prachanda-Bhattarai faction announced that it would not take part in the general elections of 1994. It was this militant group that was christened the Communist Party of Nepal (Maoist).

Of the nine seats won by the UPF in the 1991 general elections, two were from the district of Rolpa and one from neighboring Rukum. After the split of 1994, only the three MPs from these districts allied with the Prachanda-Bhattarai faction. The others remained loyal to Lama's UPF, which chose to remain involved in parliamentary politics and took part in the general elections of 1999. It is, therefore, not surprising that the geographical base for Maoist operations lay in the Midwestern hills. What was also in favor of the Maoists in that region was the fact that the districts of Rolpa and Rukum were both well-suited for a guerilla uprising. For example, Whelpton (2005) notes that

the Maoists' task of extending their influence in these parts] was made easier because these areas were not of crucial economic importance and were only weakly penetrated by the Nepalese state. Neither Rolpa nor Rukum had any motorable roads until those to the district headquarters were completed by the army in 2002 and 2003 respectively. In the past the government had relied on a small number of local 'big men', who owed their status partly to state patronage but were also chosen partly because they were already influential. Social control was maintained by these individuals and also through the self-regulating mechanisms of village communities. In western Nepal, such people

had generally worked within the Panchayat system but switched allegiance in 1990 to Congress. Their role as (relatively) large landowners and often also money-lenders meant that many of their poorest neighbors feared opposing them openly but might welcome their removal by a *force outside of the village* (emphasis added) (p. 205).

There is also evidence that the state had been conducting exercises to suppress the activities of the left in the Midwestern hills. The Sija movement (named for Sisne peak and Jaljala mandir) – the first organized campaign launched by the Maoists in 1995 – was actually developed in response to atrocities described in grim reports of politically motivated human rights violations commissioned by the Nepali Congress government in 1992 and 1993 (cited in Thapa 2002:84). Conscious of the historical roots of leftist leaders in these districts and the popularity of Sija, the government reacted in 1995 with a structured campaign of state-terror known as Operation Romeo, precursor to the equally ruthless but more widespread Operation Kilo Sierra 2. It would take less than a year for the Maoists to respond with their armed struggle known as the People’s War that over the next ten years grew into one of the most intense civil conflicts in the world (see Gersony 2003).

That the Maoist insurgency was born from a combination of political and economic factors is historically undeniable. But while the local grievances of marginalized populations, ethnic tensions, and poverty may all be important contributors, they are inadequate in explaining the rise of insurgency in Nepal. The political animosity between the ultra-left and those occupying the seats of power in Kathmandu – be they the royalists, the Nepali Congress, or the CPN (United Marxist-Leninists) – seems to be of paramount importance. Additionally, the success of revolutionary leaders, such as Prachanda and Bhattarai, in mobilizing the inhabitants of the Midwestern districts against the state in the last fifteen years owes much to the long history of leftist activism in these parts – a history that dates back to Mohan Bikram Singh’s campaigns of the 1950s and 1960s.

Was the left successful only because the Midwesterners, due to their marginalization, had a natural hostility towards parties that at least in their eyes represented the interest of only the elite? If that were the case, then why did we not witness leaders like Mohan Bikram Singh spring naturally from the communities of the downtrodden Kamaiyas and Tharus in the western Terai, the marginalized Satars and Yadavs of the eastern Terai, or the neglected Limbus of the eastern Himalayas? While it is true that the Kham Magars of the Midwestern hills are an oppressed community, they are not the only ones, and

perhaps not the most oppressed either.⁴ Whelpton (2005) rightly points out that in the Kham Magar areas of Rolpa, where the conflict was most intense, “there were no really big landlords and inequality was less than in many other parts of the western hills” (206). A more complete explanation of the Maoist conflict will necessarily look to the political entrepreneurship of leftist leaders and the history of political activism in Nepal.

3 Theory, Data and Past Literature

3.1 The Political Economy Approach

The formal analysis of conflict as an economic activity dates back to the pioneering work of Hirshleifer (1991). The relevant insights from the subsequent literature are summarized as follows.⁵

Insurgency, as a form of conflict, typically involves three sets of actors: the rebel leaders, their guerilla recruits, and the government.⁶ It is when the insurgency is profitable, given the economic and political circumstances, to both rebel leaders and potential recruits that it can pose a serious threat to central and local authorities. Further, the insurgency can be successful only if the insurgents are able to use geographical conditions and infrastructure (or its absence) to their benefit. For example, it is easier to hide from the police or army in more rugged terrain, forested areas, and in regions that are ill-penetrated by roads. This political economy approach to the understanding of conflict broadly highlights three sets of variables – economic conditions, geography, and political activity – all of which are discussed in detail below.

Economic conditions. Whether or not a potential recruit joins the insurgency depends on her economic circumstance. Perhaps the choice is simply an occupational

⁴Both the districts of Rolpa and Rukum, where the frequency of violence was greatest, are among the top ten districts with the lowest Gini coefficient for landownership. The districts with the highest levels of inequality in landownership actually happen to be in the Tarai (see *Nepal Human Development Report 2004*).

⁵The literature following Hirshleifers contribution is too large to summarize here. Some prominent contributions are Collier and Hoeffler (1998), Grossman (1995), Fearon (2007) and Skaperdas (2008). See Garfinkel and Skaperdas (2007) for a good overview.

⁶A fourth group is of course the noncombatants. Although Kalyvas (2006) argues that this group plays an important and active role in the creation of violence, we take their presence as given and focus instead on explaining the rise of leaders and armies. The role of noncombatants, though important, is difficult to incorporate into a model that intends to use frequency of violence to explain the origins of conflict. Nevertheless, I try to incorporate the role of this group and arguments by Kalyvas in explaining the hypotheses outlined in this section.

one, as by joining the cause a poor villager is able to attain a certain degree of economic stability that she did not have in her previous occupation. Of course, participating may be costly because of the non-negligible probability of death. But there may be an equally good chance that an individual will be killed even if she chooses not to participate. Once a certain number of guerillas have been recruited, their presence in the countryside threatens the lives of others, who are more easily persuaded to take a side for security-related reasons (Kalyvas 2006). Thus, it may be that only a handful of extremely poor recruits are needed to get the conflict going.

The negative relationship between conflict and economic prosperity was empirically uncovered by Fearon and Laitin (2003), who claim that poor economic conditions increase the probability of civil war onset because “recruiting young men to the life of a guerrilla is easier when economic alternatives are worse” (80). Other authors such as Collier and Hoeffler (2004) have also stressed the importance of economic conditions. Although several of these studies investigate economic conditions at the national level, it is still reasonable to hypothesize that lower levels of GDP are associated with greater conflict intensity even at the sub-national level. In particular, since the theory stresses economic alternatives for guerilla soldiers, I take GDP per worker (effectively a proxy for the wage rate) as the key explanatory variable.⁷ The significant negative correlation between GDP per worker and conflict intensity shown in column (1) of Table 2 is promising for this aspect of the theory. We will soon see whether or not this relationship is robust when we account for other factors.

Geography and infrastructure. As mentioned before, an insurgency can only be successful if the insurgents are able to take advantage of opportunities in their favor (Collier and Sambanis 2002). In the previous literature on the Maoist insurgency, Bohara, Mitchell and Nepal (2006) highlight the importance of opportunities for violence; and in a wider-ranging study, Fearon and Laitin (2003) focus specifically on opportunities relating to geography and infrastructure. They note that the number of insurgents is usually much smaller than the number of government soldiers, and the insurgents would

⁷The variable is constructed by dividing total district GDP for the year 1996 by economically active population above the age of 10. It is also worth noting here that Sharma (2006) and Deraniyagala (2006) find that economic prosperity was on the rise before and even during the insurgency in districts where the conflict was concentrated. But in a cross-sectional model that focuses on initial conditions, we should not be concerned with temporal changes in GDP. I use figures from around 1995 so as to avoid reverse causality and other indirect feedback. Descriptive statistics for GDP and other data, along with details of their sources and construction, are provided in Table 1 and the note below it.

be much weaker were it not for the fact that forests and rugged terrain make hiding from government soldiers easier. They also suggest that “terrain more ‘disciplined’ by roads” (80) is less conducive to insurgent activity because it increases the ability of the government to monitor activities in rural parts and because it facilitates communication between local administrators and central authorities. In view of this argument, it is worth testing whether terrain factors such as per cent of land area inclined more than 30 degrees, total area of forest cover per person, and road density, which is defined as the total length of roads in kilometers as a per cent of 100 square kilometers of surface area, are associated with conflict intensity.⁸

Political activism. The ideas developed so far stress the collaborative nature of insurgency. Insurgency is a joint effort between rebel leaders and members of their rank and file, whose personal objectives in joining the cause may be different from those of their commanders. Knowing that the left was active in the Midwestern region, and that this region exhibits much higher levels of conflict intensity than other regions, it is important to test the effect of leftist activism on conflict intensity.⁹ In consideration of the history summarized in the previous section, I do this by testing the significance of a dummy variable for the Midwestern development region. I argue that the Midwestern dummy serves largely as a proxy for political activity. As Table 3 indicates, the Midwestern region differs from the rest of Nepal in a plausibly significant way only in terms of prosperity and geography, both of which we control for directly.¹⁰ It receives more attention from the central government in terms of budget allocation, has a linguistically less polarized population, and has lower land inequality.

⁸As Table 2 indicates, the Kathmandu Valley districts seem to be outliers in the regression of conflict on road density, and this is also corroborated by findings in the multivariate setting. Whereas road density is less than 15% for every other district, road densities in Kathmandu, Bhaktapur and Lalitpur are 93.8%, 78.5% and 44.5% respectively. With these three districts included, the average road density is 6.84%, as opposed to a 4.12% average for the other seventy-two districts. This is a significant difference of 2.72 percentage points. Therefore, in all regressions that include the road density variable, I exclude the three Valley districts.

⁹Since we want to focus here on the kind of activism that leads to insurgency, it is necessary to work with a more restrictive notion of political activism than the one that is common in the political science literature. I am specifically interested in anti-establishment activism rather than political activism within the framework of constitutional politics. Therefore, identifying the Midwestern region as the historical center of leftist activism seems natural. I thank the editors for pointing out this abuse of terminology, and seeking a clarification.

¹⁰I discuss the issue of whether the Midwestern dummy reflects remoteness or prosperity rather than politics in the last paragraph of Section 4.

3.2 Social Factors and Ideology

Moving beyond the political economy approach, there is obvious reason to suspect that social and economic grievances, group divisions and political ideology have a significant causal impact on conflict intensity. Reynal-Querol (2002), for instance, has stressed the importance of ethnic and other social divisions, and Collier and Hoeffler (2004) discuss the theory of grievances in competition with the theory of greed in explaining civil wars. It is, therefore, appropriate to also test the idea that grievances and ethnic polarization are related to the intensity of conflict. In the case of the Maoist insurgency, these hypotheses already receive some support from Macours (2006), who finds that increases in land inequality have exacerbating effects on the number of abductions related to the Maoist insurgency in Nepal. In addition, nearly all of the existing literature on the Maoist insurgency has, to varying extents, highlighted the importance of grievances, caste and ethnic divisions, and ideology in explaining the Maoist conflict.¹¹

Grievances. The idea that local grievances, exploitation and injustice may raise the intensity of conflict by inducing locally disadvantaged populations to join an insurgent movement is not at odds with the political economy approach to insurgency (see, e.g., Berdal and Malone 2000). In countries like Nepal, where the rural population is highly estranged from the activities of the state, one would suspect that if grievances were to matter then it is local grievances that are most salient. In 1991, just a few years before the start of the insurgency, approximately eighty percent of Nepal's population was engaged in agricultural activities (*Statistical Yearbook of Nepal 2001*). Therefore, intra-district land inequality is perhaps the best available indicator of economic inequality and grievances. It is an especially good indicator of local grievances, as in largely agrarian societies, landholdings "give their owner special social status or political power in a lumpy way" (Bardhan and Udry, 1999:60-74).¹²

On the other hand, although the land Gini nicely captures intra-district inequality, it does not capture the possible effect of inter-district inequality, or what I would interpret as district-level grievances. To capture the effect of such grievances, we cannot appeal to

¹¹See Bohara, Mithcell and Nepal (2006), Thapa (2002, 2003), Whelpton (2005), and Do and Iyer (2006) among others.

¹²Although, district level Gini coefficients for landownership are 2001 data taken from the *Nepal Human Development Report 2004*, land markets are relatively inactive (Bardhan and Udry 1999:60) so it is unlikely that the insurgency has had a significant effect on the land Gini since the start of the conflict in 1996. Thus, I am not much concerned about reverse causality.

the variation in GDP or HDI across districts because these variables would more likely reflect district-wise economic conditions. Instead, I measure district-level grievances by using indicators of government absence and neglect. Of course, the level of government absence not only indicates neglect, it also reflects the level of state capacity (see, e.g., Migdal 1988), and thus partially reflects the ease in waging an effective campaign against the state. Either way, we should observe a negative relationship between government presence and intensity of conflict. I use the number of post offices per capita as a proxy for government presence, and to measure government neglect I use district-wise development budget allocation per capita.¹³ If these variables emerge as significant, then we could suspect that grievances are explanatory. If not, then the evidence that grievances matter is only weak, since one would be hard-pressed to make the case that the economic variables discussed in the previous subsection reflect district-level economic grievances as much as they do economic conditions.¹⁴

As the regressions in Table 2 show, both the Gini coefficient for land ownership and development budget allocation per capita are related to conflict intensity in ways opposite to what we expect.¹⁵ Nevertheless, whether this relationship continues to hold in the multivariate setting should be tested, and I do this with the underlying assumption that land inequality and development budget allocation reflect local and district level grievances respectively.

Caste and ethnicity. That places more ethnically divided are at greater risk of political violence is an idea that several scholars have suggested and tested (Olson 1965; Horowitz 1985; Fearon and Laitin 2003). Bohara, Mitchell and Nepal (2006) cite theoretical research to justify testing the effect of social capital on intensity of conflict. Yet, because of the inherent endogeneity of social capital to conflict intensity, it is difficult

¹³I use development budget allocation rather than total budget allocation because total budget allocation may include expenditure by the state in suppressing the insurgents, as discussed in the historical background of Section 2.

¹⁴Murshed and Gates (2006) argue that the prosperity variables (GDP per capita and HDI) actually capture the effect of grievances associated with spatial inequalities more so than economic conditions. But this argument is unconvincing. I am not aware of any qualitative account of the insurgency that suggests that there was more inter-district or inter-regional fighting than intra-district fighting. (The only major inter-district battle outside of Rukum and Rolpa was the August 2004 Maoist attack on Dolpa's district headquarters; and even Dolpa lies in the Midwestern region.) Therefore, from a theoretical standpoint it is not clear why GDP and HDI should be taken to be more likely indicators of grievances than intra-district economic conditions.

¹⁵Higher land inequality is associated with lower conflict intensity, while higher levels of development budget allocation are associated with greater conflict intensity.

to draw any causal inferences even though we may observe strong correlations.

Therefore, instead of focusing on social capital, I test the hypothesis that intensity of conflict is increasing in polarization between the Bahun-Chhetri caste group and other castes.¹⁶ To measure caste divisions, I use the probability that of any two randomly chosen individuals in a district, one will be a member of either the Bahun or Chhetri caste group, and the other will not. This is a coarser version of the usual Herfindahl-type index (used by Do and Iyer 2006), which gives the probability that any two randomly chosen individuals will be of different castes. Because several authors have argued that it is the social and economic disparity between the hill-based Bahun-Chhetri caste groups and more marginalized castes that is at the heart of social tension in Nepal, I find this measure of polarization to be more appealing than the measure of caste fractionalization.¹⁷ Table 2 shows that at least in the univariate case, caste polarization is strongly and positively associated with conflict intensity.

In addition to caste polarization, I also test the effect of linguistic polarization by calculating the probability that of two randomly chosen individuals, Nepali will be the mother tongue of only one individual.¹⁸ In the context of Nepal, I find it more compelling to use this modification of the ethno-linguistic fractionalization index (ELF) for reasons similar to those discussed in the case of caste.¹⁹

Ideology. There does not seem to be any relationship between socio-economic conditions (grievance variables) and leftist political ideology. If such a relationship did exist, then one would expect the distribution of parliamentary seats for the ten least developed districts (ranked by HDI) to be more skewed to the left than the overall distribution for the entire country. But as Tables 4 indicates, this is not the case. Even among the districts in which the UPF won seats in the 1991 general elections, there is no convincing relationship between leftist ideology and economic prosperity or inequality (Table

¹⁶I use Bahun to refer to Hill Brahmin, which does not include the Tarai Brahmins.

¹⁷In the literature on Nepal, Gurung (2007) and Lawoti (2005) provide detailed arguments. Gurung identifies cleavage along linguistic and caste lines, highlighting the exclusion of the Janajati and Dalit communities. Lawoti argues that the fault lines of social and political tension are between the Bahun-Chhetri group and other groups. In the broad literature on civil conflict, Montalvo and Reynal-Querol (2005) find that polarization fares better than fractionalization as an explanatory variable.

¹⁸According to these modified measures, conflict should be greatest in districts where a caste or ethnic group forms exactly 50% of the population. This is consistent with findings by Bates (1973) in the case of ethnic conflict in Africa, and what Dion (1997) has suggested more formally. Esteban and Ray (1994) provide a more detailed approach not dissimilar in spirit to the one taken here.

¹⁹I test for nonlinear relationships both in the case of caste and linguistic polarization. For robustness, I also interact them with the grievance variables.

5). In fact, Rolpa and Rukum, where the intensity of conflict was greatest, are among the top ten districts with the lowest inequality in landownership. Further, the history of leftist activism in Nepal provides no clues as to why the last five districts listed in Table 5 are districts where the UPF achieved electoral success. If anything, one would have expected more seats for the UPF in the Midwestern region or perhaps in the far eastern districts rather than the ones listed.

These observations suggest that it is insufficient to control only for grievances, since leftist ideology can emerge for reasons other than those associated with class. In particular, the success of the UPF in the 1991 elections was likely due to aspects of ideology uncorrelated with socio-economic variables. The electoral success of the UPF thus offers a natural measure of non-grievance based leftist ideology. As mentioned in the introduction, I construct the ideology variable (named UPFN) by giving a district one point for each seat that the UPF won in the 1991 general elections in a neighboring district, and three points for each seat that the UPF won in that district itself. According to this measure, the district of Rukum, for example, receives a total of five points: three because the UPF won one seat there, and two because it borders on Rolpa, where the UPF won two seats.²⁰ Correlations reported in the lower panel of Table 2 reveal that ideology is not much related to prosperity, inequality or social cleavages – a finding that supports the characterization of political entrepreneurs as independent actors in accord with the ideas developed in the political economy approach. Figure 2 shows the expected, albeit not entirely convincing, positive relationship between ideology and conflict.²¹

²⁰These assignments seem arbitrary, but the objective is only to construct an ordinal measure of ideology that might be correlated with the dependent variable. The implicit assumption of the assignments is that the effect of having a UPF candidate win one seat in the home district is roughly equivalent to having three seats won in neighboring districts. Importantly, the constructed measure of ideology accounts for the fact that ideology may have regional components, if not origins. Although the tables do not report the results of alternative specifications, such as 1 and 2 points, or 1 and 4, they are qualitatively identical to the specification used above.

²¹One political variable that is included by Bohara, Mitchell and Nepal (2006) in their study, but which I choose not to include here is the voter participation rate in the 1999 general elections. The authors find that this variable is significantly related to conflict, and conclude that districts where democracy has flourished have seen less intense fighting. But including this variable causes a reverse-causality problem since the 1999 elections took place three years well into the conflict.

4 Results

The theory outlined in the previous section naturally divides the independent variables into two broad groups and six categories within these groups. The first group consists of political economy variables, namely those associated with economic conditions, geography and political activism. Given the intuitive and empirical strength of GDP per worker as a proxy for the wage rate, and road density as a proxy for remoteness and infrastructure, I estimate models that include these two variables and the Midwestern dummy as the core control variables. Table 6 reports the findings.

First, it is evident from the table that geography, infrastructure and the opportunities created by the remoteness of a district are significant in determining conflict intensity. The road density variable is significant in all of the regressions, and its effect on conflict is robust to the inclusion of a host of controls. On average, a ten per cent increase in road density is associated with a reduction of 0.5 to 1 deaths per 1000 people. For a district like Dolakha, for example, which ranked 20th according to conflict intensity, a ten per cent increase in road density would be associated with almost no conflict whatsoever. Although, the effects of forests per capita and land inclination are not as robust, these variables, unlike road density, do not capture remoteness and infrastructure in addition to geography.

Second, the table also indicates that being a Midwestern district is associated with higher conflict intensity. In particular, being a Midwestern district is associated with a significant increase of almost 1 death per 1000 people in samples that include Rolpa and Rukum. Even for Kalikot, the district that saw the most violence among those where the UPF had no influence, this would translate to a difference of 33% in conflict intensity.

Third, it appears that local and district-level grievances, caste and ethnic polarization, and ideology are not linked in any causal way to conflict intensity. The land Gini is significant but the coefficient has the wrong sign, implying that lower levels of land inequality are associated with higher levels of conflict. Ideology, on the other hand, is significant even after roads, income and political activity are taken into account. But unlike the Midwestern dummy, its effect is not robust to the exclusion the two districts that saw the most violence.

Fourth, and somewhat striking, is the result that GDP per worker does not have

a significant effect on conflict intensity after we account for road density. Its effect is, however, significant and substantial when we leave out the roads variable, as reported in columns (12) and (13) of Table 6 and columns (1) and (2) of Table 7. Given the high correlation between wages and remoteness, this is not really a surprising result. Both roads and GDP per worker represent cost variables, and the statistical significance of one over the other only indicates which of the two kinds of costs was more important in determining the success of the insurgents. Therefore, issuing skepticism toward the political economy approach based on this result for GDP per worker may be unwarranted. In fact, in a country as poor as Nepal, every district has individuals sufficiently poor enough that they are willing to participate in conflict for lack of reasonable alternatives. If the story described in the beginning of Section 3.1 is right, then the average economic condition in a district may not be a complete metric for analyzing the effect of economic conditions on conflict intensity.²² On the other hand, the insignificance of even GDP per worker, GDP per capita and HDI, as reported in Table 7, puts another nail in the coffin of arguments that district level grievances could have had robust causal effects on conflict intensity.

Table 7 reports various additional robustness checks. In their analysis, Murshed and Gates (2005) found a nonlinear relationship between land inclination and intensity of conflict in Nepal. However, there is no evidence of such a relationship here. There is also no evidence for a nonlinear relationship between caste or linguistic polarization and conflict intensity. Therefore, not only is it unlikely that caste and ethnicity matter at all, it is also unlikely that there is either a positive or negative relationship between these variables and conflict below some threshold, and then the opposite effect above the threshold. Finally, there is no evidence that caste divisions and grievances have any significant interaction. In other words, the insignificance of the interaction terms in columns (8) and (9) casts doubt as to whether inequality between the Bahun-Chhetri caste group and other castes may have been an important driving force behind the Maoist conflict.

There is one final issue, and that has to do with the validity of the Midwestern dummy as a proxy for ultra-leftist political activism. Since we observed that the Midwestern region is poorer and more isolated than the rest of Nepal, we know that the Midwestern

²²One may look to Do and Iyer (2006) to find the argument that poverty does indeed have a robust effect on conflict intensity.

dummy partially reflects prosperity and remoteness. However, several of the remoteness and prosperity variables such as GDP, HDI, roads, forests, and slopes have been included in the tests. While these variables appear to be insignificant themselves, the coefficient on the Midwestern dummy is hardly affected by their inclusion (generally lying around 0.9). Therefore, it is more likely that the variation in the dummy that is significant in predicting conflict intensity is due to factors not associated with remoteness or income. The only other plausible candidate is political history – in particular, the history of ultra-leftist activism.

5 Conclusion

In the political economy approach to insurgency that served as the guide to this empirical investigation, the relationship between rebel leaders and their recruits is analogous to that of employers to employees. While the objectives of the two parties may not necessarily coincide, a contract of exchange may be profitable for each. The insurgency survives, as a firm does, as long as costs are low, i.e. as long as the wage needed to provide soldiers is low and as long as operating costs are low. Wages are low when alternative employment options are limited, and operating costs are low when physical geography and the absence of infrastructure aid in preventing the government from being able to suppress the rebels.

I restate the logic of the political economy approach with reference to the variables used in the regressions. First, we can think of GDP per worker, GDP per capita or HDI as proxies for guerilla wages. Second, the geography and infrastructure variables, particularly roads, act as proxies for operating costs. And third, the Midwestern dummy is mostly a proxy for leftist activity, indicating districts where rebel leaders chose to invest their efforts. Two of these three sets of variables were found to be significant in explaining conflict intensity. Although the proxy for wages was not found to be significant, it, like the proxies for geography and infrastructure, captures costs. We can conclude that wages were not as important as infrastructure in determining the profitability of conflict. This is not a particularly surprising result when viewed with the fact that this study of insurgency was restricted to a single conflict in a developing country. In short, the findings justify the political economy approach.

On the other hand, the insignificance of the remaining variables – grievances, caste

and ethnic divisions and ideology solidly rejects the proposition that the Maoist conflict in Nepal emerged from anything but a rational calculus on the part of the insurgents. This result is in harmony with the findings of the cross-country studies discussed in Section 3. In short, the ten year long Maoist insurgency in Nepal does not appear to be linked in any causal way to grievances, social factors or even ideology. It was incentives that mattered most.

References

- [1] Bardhan, Pranab and Christopher Udry (1999). *Development Microeconomics*, New York, NY: Oxford University Press.
- [2] Bates, Robert (1973). *Ethnicity in Contemporary Africa: Eastern African Studies XIV.* , Syracuse University Maxwell School of Citizenship and Public Affairs.
- [3] Berdal, Mats and David Malone (eds.) (2000). *Greed and Grievance: Economic Agendas in Civil Wars*, Boulder, CO: Lynne Rienner Publishers.
- [4] Bohara, Alok, Neil Mitchell and Mani Nepal (2006). “Opportunity, Democracy and the Exchange of Political Violence: A Subnational Analysis of Conflict in Nepal,” *Journal of Conflict Resolution*, 50: 108-128.
- [5] Central Bureau of Statistics (CBS) (1996). *Nepal Living Standards Survey Report, 1996: Main Findings. Vol. 1*, Kathmandu: Central Bureau of Statistics.
- [6] Collier, Paul and Anke Hoeffler (2004). “Greed and Grievance in Civil War,” *Oxford Economic Papers*, 56: 563-595.
- [7] Collier, Paul and Anke Hoeffler (1998). “On Economic Causes of Civil War,” *Oxford Economic Papers*, 50: 563-573.
- [8] Collier, Paul and Nicholas Sambanis (2002). “Understanding Civil War: A New Agenda,” *Journal of Conflict Resolution*, 46: 3-12.
- [9] Deraniyagala, Sonali (2005). “The Political Economy of Civil Conflict in Nepal,” *Oxford Development Studies*, 33: 47-62.
- [10] Dion, Douglas (1997). “Competition and Ethnic conflict: Artifactual?,” *Journal of Conflict Resolution*, 41: 5: 638-648.
- [11] Do, Quy-Toan and Lakshmi Iyer (2006). “An Empirical Analysis of Civil Conflict in Nepal,” Institute of Government Studies Working Paper 2006-14.
- [12] Esteban, Joan and Debraj Ray (1994). “On the Measurement of Polarization,” *Econometrica*, 62: 4: 819-51.

- [13] Fearon, James (2007). “Economic Development, Insurgency and Civil War,” in Elhanan Helpman (ed.) *Institutions and Economic Performance*, Cambridge: Harvard University Press, forthc.
- [14] Fearon, James and David Laitin (2003). “Ethnicity, Insurgency and Civil War,” *American Political Science Review*, 97: 75-90.
- [15] Garfinkel, Michelle and Stergios Skaperdas (2007). “Economics of Conflict: An Overview,” in T. Sandler and K. Hartley (eds.) *Handbook of Defense Economics, Vol. 2*, Amsterdam: Elsevier.
- [16] Gersony, Robert (2003). “Sowing the Wind...: History and Dynamics of the Maoist Revolt in Nepal’s Rapti Hills,” Mercy Corps International.
- [17] Grossman, H.I. (1995). “Insurrections,” in K. Hartley and T. Sandler (eds.) *Handbook of Defense Economics, Vol. 1*, Amsterdam: Elsevier.
- [18] Gurung, Harka (2007). “Social Exclusion and Maoist Insurgency,” in A. Aditya (ed.) *The Inclusive State: Reflections on Reinventing Nepal*, Kathmandu: SAP Nepal.
- [19] Hirshleifer, Jack (1991). “The Technology of Conflict as an Economic Activity,” *American Economic Review*, 81: 130-134.
- [20] Horowitz, Donald (1985). *Ethnic Groups in Conflict*, Berkeley, CA: University of California Press.
- [21] International Centre for Integrated Mountain Development (ICIMOD) (1997). *Districts of Nepal: Indicators of Development*, Kathmandu: International Centre for Integrated Mountain Development.
- [22] Joshi, Bhuwan Lal and Leo Rose (1966). *Democratic Innovations in Nepal: A Case Study of Political Acculturation*, Berkeley, CA: University of California Press.
- [23] Kalyvas, Stathis (2006). *The Logic of Violence in Civil War*, Cambridge: Cambridge University Press.
- [24] Lawoti, Mahendra (2005). *Towards a Democratic Nepal: Inclusive Political Institutions for a Multicultural Society*. New Delhi: SAGE Publications.

- [25] Macours, Karen (2006). "Relative Deprivation and Civil Conflict in Nepal," Working Paper, School of Advanced International Studies, Johns Hopkins University.
- [26] Migdal, Joel (1988). *Strong Societies and Weak States: State-society Relations and State Capabilities in the Third World*, Princeton, NJ: Princeton University Press.
- [27] Montalvo, Jose and Marta Reynal-Querol (2005). "Ethnic Polarization, Potential Conflict and Civil Wars," *American Economic Review*, 95: 3: 796-816.
- [28] Murshed, S. Mansoob and Scott Gates (2005). "Spatial-Horizontal Inequality and the Maoist Insurgency in Nepal," *Review of Development Economics*, 9: 121-143.
- [29] National Planning Commission (2001). *Statistical Year book of Nepal 2001*, Central Bureau of Statistics, Ramshah Path, Thapathali, Kathmandu.
- [30] Olson, Mancur (1965). *The Logic of Collective Action*, Cambridge, MA: Harvard University Press.
- [31] Reynal-Querol, Marta (2002). "Ethnicity, Political Systems and Civil Wars," *Journal of Conflict Resolution*, 46: 29-54.
- [32] Shaha, Rishikesh (1990). *Modern Nepal*, New Delhi: Manohar.
- [33] Sharma, Kishor (2006). "The Political Economy of Civil War in Nepal," *World Development*, 34: 1237-1253.
- [34] Skaperdas, Stergios (2008). "An Economic Approach to Analyzing Civil Wars," *Economics of Governance*, 9: 25-54.
- [35] Thapa, Dipak (2002). "The Maobadi of Nepal," in Dixit, Kanak Mani and Shastri Ramachandaran (eds.) *State of Nepal*, Lalitpur, Nepal: Himal Books, 2002.
- [36] Thapa, Dipak (ed.) (2003). *Understanding the Maoist Movement of Nepal*, Kathmandu: Martin Chautari.
- [37] Tiwari, Bishwa Nath (2008). "An Assessment of the Causes of Conflict in Nepal," in M. Lawoti and A. Pahari (eds.) *The Maoist Insurgency in Nepal: Dynamics and Growth in the Twenty-first Century*, forthc.

- [38] United Nations Development Programme (UNDP) (2004). *Nepal Human Development Report 2004*, Kathmandu: United Nations Development Programme.
- [39] United Nations Development Programme (UNDP) (1998). *Nepal Human Development Report 1998*, Kathmandu: United Nations Development Programme.
- [40] Whelpton, John (2005). *A History of Nepal*, Cambridge: Cambridge University Press.

Table 1 Descriptive statistics

	Min	Max	Ave	St dev
Total killings per 1000 people	.0897	4.786	.8108	.8301
GDP per capita	125	631	227.1	85.12
Unemployment rate	.1175	.5840	.3681	.1234
GDP per worker	292.9	2882	678.5	384.1
HDI	.304	.652	.455	.067
Land Gini	.381	.700	.484	.064
Dev budget	187	7153	679	958.1
Post offices	.10	.46	.22	.077
Roads	0	93.78	6.84	14.55
Slopes	0	92.68	51.49	25.74
Forests	0.01	2.99	0.53	0.59
UPFN	0	7	0.88	1.4
Fraction of Nepali speakers	.0526	.9958	.5931	.2918
Bahun-Chhetri fraction	.0233	.7940	.3412	.1848

Note: The table shows the minimum, maximum, average, and standard deviation over districts. Total killings by state and Maoists was taken from the Informal Sector Service Centre (INSEC; <http://www.inseconline.org/hrvdata.php>) and normalized by population data from the Nepal Human Development Report (NHDR) 2004. GDP per capita in US dollars and HDI are 1996 figures taken from NHDR 1998. The unemployment rate is defined here as the fraction of individuals above the age of 10 who are not economically active (which is why it is unusually high). The data on economic activity are 1991 figures taken from the Statistical Yearbook of Nepal, 2001. The implicit assumption here of course, is that unemployment did not show differential trends by district in the early 1990's. GDP per worker is a proxy for the wage rate, calculated by dividing total district GDP by the economically active population. The Gini coefficient for landownership was taken from NHDR 2004. Development budget allocation per capita, post offices per capita, road density, slopes (percentage of total land area inclined greater than 30 degrees) and forests per capita were all taken from Districts of Nepal: Indicators of Development, published by the International Centre for Integrated Mountain Development (ICIMOD) in 1997. UPFN was calculated based on election results data in Whelpton (2005). The per cent of Nepali speakers and the per cent of Bahuns and Chhetris in the population were calculated for each district from linguistic and caste data from the 1991 census, reported in the Statistical Yearbook of Nepal, 2001. The number of Bahuns does not include Tarai Brahmins (hence Bahun, for Hill Brahmin). All data were available for all 75 districts, except killings data, which was not available for the districts of Mustang and Manang.

Table 2 Upper Panel: Univariate regressions, where dependent variable is total killings per 1000 people

	all districts except Mustang and Manang					without Rolpa and Rukum in (6)-(9) and Kathmandu Valley districts in (10)					core sample		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
GDP pw													
Land Gini													
Dev budget pc													
Caste													
Roads													
R ²													

Lower Panel: Correlation coefficients for ideology and other variables

	HDI	Unemp	Dev Budget	Land Gini	Forests	Slopes	Post offices	Roads	Nepali sp	Bahun-Chhetri
UPFN										

Note: GDP per worker and Development budget allocation per capita have been logged. Core sample refers to all districts for which the data were available, except the Kathmandu Valley districts and Rolpa and Rukum.

Table 3 Averages of some statistics for the Midwestern districts, Kathmandu valley and rest of Nepal

	MW districts	Kathmandu valley	Rest of Nepal
Killings per 1000 people	1.78 (1.25)	.126 (.040)	.583 (.414)
GDP per worker	494.1 (203.8)	1768 (970.3)	670.0 (279.7)
Land Gini	.452 (.047)	.500 (.053)	.492 (.066)
Dev budget pc	639 (355.7)	3766 (3106)	527 (549.8)
Roads	1.784 (2.332)	72.25 (25.25)	4.734 (3.867)
Nepali speakers pc	.823 (.221)	.428 (.087)	.541 (.286)

All figures are averages over the sample indicated in the column. Standard deviations for the averages are included in brackets.

Table 4 Distribution of parliamentary seats in the 1991 general elections for the ten districts with the lowest HDI

	UPF	NWP	UML	NC	RPP
Mugu				X	
Bajura				X	
Kalikot				X	
Bajhang				XX	
Jajarkot			X	X	
Dolpa				X	
Jumla		X			
Achham				XXX	
Humla	X				
Dailekh				XX	
Share in Sample	.067	.067	.067	.800	.000
Share in Nepal	.044	.010	.337	.537	.020

The parties are the United People's Front (UPF), Nepal Workers and Peasants Party (NWP), the Communist Party of Nepal (United Marxist Leninist) (UML), the Nepal Congress (NC), and the National Democratic Party (which goes by its Nepali acronym, RPP). They have been ordered from political left to political right. The Nepal Sadbhavana Party, the Communist Party of Nepal (Democratic) and the Independents are not included, as it is difficult to place them in this ordering of political ideology.

Table 5 Economic and social indicators for districts where the UPF won seats in the 1991 general elections

	Seats	GDP pc	Land Gini	Dev budget	Nepali sp	Bahun-Chhetri
Humla	1	186	.481	967	.824	.497
Rolpa	2	161	.423	309	.850	.335
Rukum	1	184	.410	405	.916	.440
Chitwan	1	315	.508	558	.690	.400
Kavrepalanchok	1	288	.430	391	.530	.367
Lalitpur	1	378	.588	3094	.425	.305
Ramechhap	1	185	.434	343	.587	.333
Siraha	1	161	.427	358	.052	.023
Sample Average		232	.471	803	.609	.337
Standard deviation		83	.054	950	.282	.142
Average over all districts		227	.484	679	.593	.341

The indicators are GDP per capita in US dollars, the Gini coefficient for landownership, development budget allocation per capita by the central government in Nepali rupees, fraction of individuals whose mother tongue is Nepali, and fraction of Brahmin and Chhetri caste groups in the population. A more detailed description of the data is given in the note below Table 3.

Table 6 Multivariate regressions, where dependent variable is total killings per 1000 people

	without Kathmandu Valley									core	w/o Val	all	w/o RR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
GDP pw	-.1360 (.2653)	-.1561 (.3004)	-.0714 (.2736)	-.1218 (.2826)	-.0884 (.2746)	-.1322 (.2740)	-.1297 (.2661)	.0655 (.2875)	-.0895 (.2460)	-.1198 (.1908)	-.1280 (.2683)	-.5034* (.1904)	-.4043* (.1350)
Roads	-.0756* (.0266)	-.0752* (.0269)	-.0634* (.0294)	-.0749* (.0271)	-.0731* (.0269)	-.0756* (.0278)	-.0792* (.0270)	-.0776* (.0263)	-.0709* (.0247)	-.0679* (.0191)	-.0795* (.0296)		
MW	-.9249* (.1920)	.9137* (.2080)	.9097* (.1927)	.9235* (.1936)	.9059* (.1946)	.9224* (.1977)	.9639* (.1988)	.8804* (.1912)	.7656* (.1837)	.6005* (.1442)	.9552* (.2163)	.9459* (.2212)	.4756* (.1662)
Post offices		-.1880 (1.284)											
Slopes			.0039 (.0040)										
Bahun-Chhetri				.0738 (.4780)									
Caste div					.4716 (.6667)								
Ling div						-.0275 (.4384)							
Dev budget pc							-.3058 (.3880)						
Land Gini								-2.243* (1.327)					
UPFN									.1812* (.0524)	.0001 (.0513)			
Forests											-.0584 (.1872)	.1588 (.1735)	.3296* (.1247)
R ²	.48	.48	.49	.45	.48	.45	.49	.50	.56	.50	.48	.44	.47

The usual monetary variables have been logged. Core refers to the sample for which the data was available, excluding Rolpa, Rukum and the Kathmandu Valley districts. Star indicates significance at 5%.

Table 7 Further robustness checks; dependent variable is again total killings per 1000 people

	Core	without Kathmandu Valley							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GDP pw	-.5394*	-.6021*			-.0471	-.1118	-.1438	-.0657	.0904
	(.1616)	(.2192)			(.2892)	(.2887)	(.2887)	(.2777)	(.2963)
Roads			-.0902*	-.0840*	-.0653*	-.0713*	-.0757*	-.0766*	-.0857*
			(.0218)	(.0233)	(.0303)	(.0279)	(.0270)	(.0274)	(.0273)
MW	1.033*	-.6920*	.9778*	.9355*	.9148*	.9170*	.9193*	.9586*	.8577*
	(.1523)	(.1979)	(.1948)	(.2067)	(.1949)	(.1998)	(.2004)	(.2037)	(.2029)
GDP pc			.3303						
			(.3434)						
HDI				-.0072					
				(1.570)					
Slopes					.0073				
					(.0128)				
Slopes^2					-3.7E-5				
					(.0001)				
Caste div						1.278		2.982	3.352
						(2.934)		(7.897)	(7.894)
Caste^2						-1.400			
						(4.955)			
Ling div							.2989		
							(2.415)		
Ling^2							-.5969		
							(4.342)		
Dev budget pc								-.0001	
								(3.147)	
Caste × Budget								-.9470	
								(3.147)	
Land Gini									.0436
									(5.820)
Caste × Gini									-6.503
									(14.27)
R ²	.40	.42	.49	.48	.49	.49	.48	.49	.50

The usual monetary variables have been logged. Core refers to the sample for which the data was available, excluding Rolpa, Rukum and the Kathmandu Valley districts. Star indicates significance at 5%.

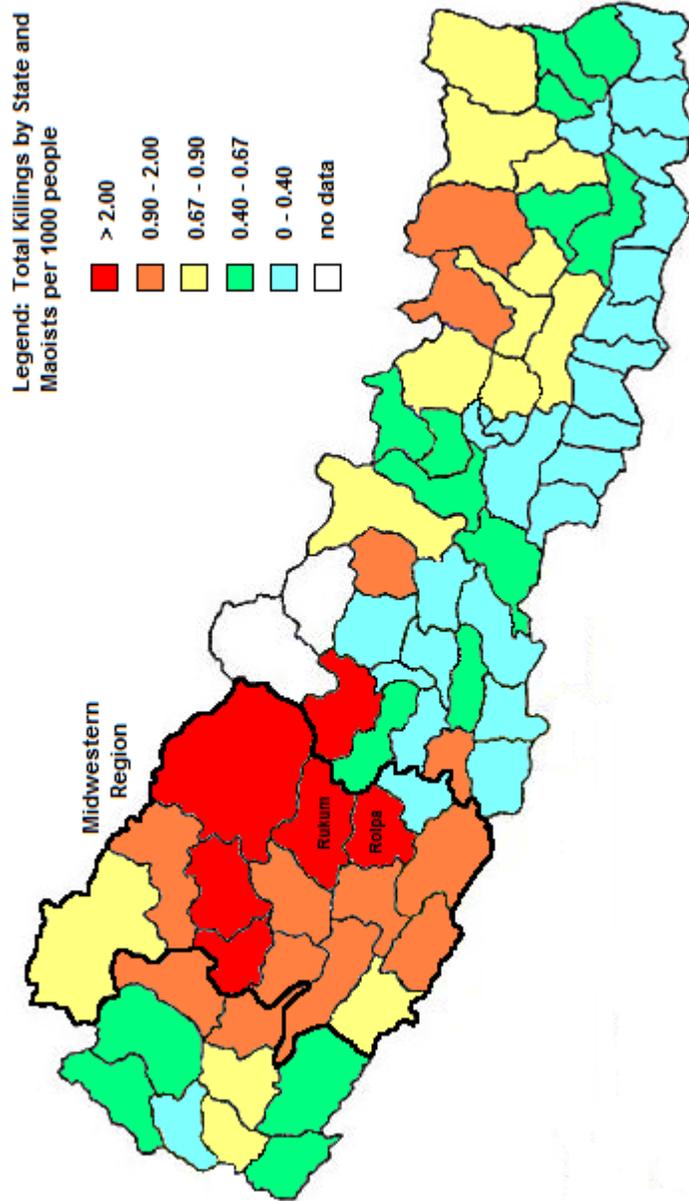


Figure 1: Map of Nepal showing the intensity of conflict

Figure 2: Average total killings by UPFN score

