

# Introducing ACLED: An Armed Conflict Location and Event Dataset

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## Abstract

This paper presents ACLED, an Armed Conflict Location and Events dataset building on the Uppsala/PRIO armed conflict dataset. ACLED codes the exact location and specific information on individual battle events, transfer of military control from governments to rebel groups and vice versa, and the location of rebel group strongholds. In the current version, the dataset covers 8 conflict countries in West and Central Africa from 1960 through 2004.

# 1 Why Disaggregate the Armed Conflicts Data?

Studies of civil war using statistical methods have recently experienced a surge of interest in academia (see Collier & Hoeffler, 2004; Collier et al. 2003; Doyle & Sambanis, 2000; Elbadawi and Sambanis, 2002; Fearon & Laitin, 2003; Hegre et al., 2001). These studies have attempted to answer a set of general theoretical questions, such as: Do the opportunities for financing non-state military organizations posed by the presence of 'lootable' natural resources increase the risk and duration of civil war? Does the presence of multiple ethnic groups in a country increase the risk of war, either because individuals within ethnic groups have starkly divergent preferences or because the traditional ethnic allegiances are easily exploitable by opportunistic elites? Is the strong concentration of civil war in poor countries due to the scarcity of employment opportunities for potential rebel recruits, or to the weak state apparatuses in poor countries? Does the presence of mountainous terrain provide safe havens for rebel groups in poor countries, and hence increase the risk of civil war?

The studies cited above all attempt to answer questions about the patterns and catalysts of civil conflict using datasets with information collected on the country level. This entails an ecological inference problem as conclusions drawn at the national level may not apply to the localized event one is studying.

This is problematic where studies examine geographical and location-specific variables as factors contributing to internal conflict. Most conflicts at least start out as local activities, typically covering a small percentage of territory in this stage. For example, the AFDL battles in (then) Zaire in 1996–97 were primarily fought in one province – Kivu – which accounts for approximately 10% of total territory. In the AFDL march to Kinshasa, other provinces saw some rebel activity, but battles were few. Even throughout a rebel conflict, the proportion of a country that sees rebellion may be quite small – the Holy Spirit Movement and Lord's Resistance Army have only operated in the northern four provinces, which cover only 44% of Ugandan territory, and most of the activity is again concentrated in two of these provinces.

At the nation level, it is difficult to operationalize for instance 'mountainous terrain' much more precise than the share of the country's territory that consists of mountains. When rebel activity is largely local, there is no way to capture whether rebel activity really occurred in the mountainous parts of the country.

Similarly, studies of the importance of country size, population, and ethnic fragmentation or domination suffer from using aggregated data to explain more local phenomena. Although this in most cases would not increase the risk of erroneously rejecting true null hypotheses, these data weaknesses are likely to severely limit the power of the statistical studies. The evidence resulting from such studies would be greatly improved by taking information beneath that of the county-level into account. Such localized data on conflict within states have not been available for large-N quantitative studies.

This paper presents the first version of a dataset that further disaggregates the PRIO/Uppsala conflict data (Gleditsch et al., 2002), providing information in GIS format on the location of each rebel groups' headquarters, available information on important battles and military activity, and on changes in rebel-hold territory. The dataset is largely compatible with the original Armed Conflicts data and the dyadic version by Cunningham et al. (2005). The GIS format concentrates it with other location-specific data on resources and mountains, geographical distribution of ethnic groups, etc. The dataset is part of the larger GROW-Net project. The GROW-Net project aims to supplement the study of civil war with models and data that refer to other geographical units than the state. Creating a dataset that codes the specific geographic location of armed conflict events will allow both focusing at small-scale behavior and compiling information for larger geographical units that do not coincide with national boundaries.

In addition to containing more precise information on the total extent of the conflict zone than previous datasets, the dataset also codes changes over time in the location and expansion of the civil war. This allows testing a new set of hypotheses regarding the escalation of civil war, how stalemates are reached, and other dynamic aspects of civil war.

The next section of the paper goes through some core contributions to the study of geographical factors and civil war in more detail. The third section presents the dataset and its coding procedures. The fourth section presents the conflicts in Uganda as examples of the type of information that may be extracted from the dataset. The final section concludes.

## **2 Literature Review**

Several qualitative and quantitative studies within civil war literature have addressed the issue of geography and expanded upon its role within conflict. Various conclusions have been reached, some contradictory, about the true impact of populations, terrain, resources and state power. More fine-grained geographic coding of conflict events will strengthen the study of territory-specific factors that have been hypothesized to affect the risk of civil war. We will briefly survey four particularly

interesting factors: The importance of the size of the country and internal distances, the geographic concentration of ethnic groups, the presence of ‘rough terrain’, and the existence of particular primary commodities.

Herbst’s (2000) study of the projection of power in African states sheds some light on why challenges to the state arise from dispersed populations. Herbst links the abilities of governments and the idea of a state as a function of geographic control. His theory is based on Boulding’s (1962) “loss of strength” gradient (LSG), but within a domestic theater. The LSG depicts how a government’s power decreases in locations that are far from the government’s seat of power, typically the capital. The slope of the LSG depends on infrastructure such as roads that connect the capital to resource areas, large population centers and tax bases. Herbst shows how weak infrastructure limits African governments’ control of the state’s territory, and argues that hinterlands, or areas that are effectively outside of state control, are more prone to revolt as they are outside the reach of the state.

According to this argument, the risk of rebellion increases both with the distance from the capital and with the relative absence of infrastructure. But size and infrastructure also affects the duration of civil wars. Herbst (2004: 357-58) points to the size of a country as an important factor in controlling rebellion after its emergence – “in small countries there is often a battle for the capital that can end fairly quickly, but in big countries different armies can occupy important pieces of territory far from each other and avoid having to fight an immediate battle to the death.”.

Several studies attempt to subject similar ideas to an empirical test. Collier & Hoeffler (2004) develop a country-level measure of geographic dispersion of the population to proxy the government’s ability to project power to populated regions. They find that countries with concentrated populations are associated with a reduced civil war risk while countries with highly dispersed populations experience a markedly higher risk of civil war.

Fearon & Laitin (2003) simply use the country’s GDP per capita as a proxy for the presence of infrastructure, and partly attributes the decreasing risk of conflict as income increases to the government’s ability to project power.

It is clear, though, that information on the specific location of the rebellions is crucial for a precise test of the hypothesis. The study of Buhaug and Gates (2002:431) make use of Buhaug’s data on the location of the geographic center of conflicts to show that conflicts tend to be longer the further from the country’s capital they are. The ACLED dataset will further strengthen the power of similar tests as it locates the conflicts even more precisely than Buhaug’s and also notes how the geographic extent and locations vary over time.

A combination of a state's economic weakness (lack of infrastructure) and a lack of concern for areas distant from central power or resource areas conspire to make hinterlands forgotten territories in Herbst's argument. Given that "70% of African minorities are concentrated in one contiguous geographical area" (Scarritt and McMillan, 1995, 328), rural/minority populations can be effectively cut off from the state. Although Herbst does not specify which type of civil war he expects from hinterland based movements, others have noted correlations in rebel positions and rebel goals. More particularly, the geographic concentration of ethnic groups is commonly associated with a high risk of separatist wars.

Buhaug and Gates (2002) and Buhaug (2005) found different geographic relationships specific to conflicts designated as 'separatist' or 'revolutionary'. Separatist wars are typically associated with ethnic groups who are located in clearly defined regions of the state, while revolutionary conflicts typically involve the capital/seat of power. Fearon (2004: 283) further declassifies conflict types in a duration analysis and finds 'sons of the soil' conflicts, defined as 'civil wars involving an ethnic minority on the periphery of a state dominated by another ethnic group', have substantially longer conflicts. Furthermore, Fearon finds this relationship is not explained by the 'ethnic' component – "All sons-of-the-soil wars are ethnic, but not all ethnic wars have sons-of-the-soil dynamics. It appears that the presence of these dynamics rather than ethnic organization of the combatants is the better predictor of long civil war duration" (2004: 288). These rebellions make minorities within a rural base more likely to see large scale violence than urban or dispersed minorities (Buhaug and Gates, 2002 and Collier and Hoeffler, 2004).

Other geography related results focus on what is *in* the territory. Related to Herbst's argument, one group of studies focus on how the presence of inaccessible terrains such as forests and mountains affect the government's ability to project power. Collier and Hoeffler find countries at war have slightly lower forest coverage (29%) than peaceful countries (31%). However, war countries have, on average, 25% mountainous territory compared to a 15% average in peaceful countries (2004:570). Yet, in analysis, their conclusions regarding the importance of rough terrain are inconclusive. Buhaug and Gates (2002) also report inconclusive results when relating rough terrain to the scope of conflicts. They attribute this finding to the mismatch of sub-state information in a regression analysis with country level data. Fearon and Laitin's (2003) findings on rough terrain are far from inconclusive; they state that rough terrain (a proxy for 'insurgent conditions') is, after GDP, the most important determinant in civil war onset.

Terrain's role in conflict proliferation is somewhat clearer- both Fearon and Laitin, 2003 and Collier et al., 2004 find a positive relationship. Each of these analyses was undertaken without knowledge of whether the conflict occurred in areas designated as 'rough terrain'.

Another group of studies investigate the relationship between the presence of 'lootable' primary commodities. The results are inconclusive. Collier and Hoeffler (1998, 2004) use the primary commodity exports as a share of GDP as their measure of resource dependence argument. They find that resource dependence has a nonlinear effect – at low rates and up to 32% of exports to GDP ratio, conflict is more likely. After 32%, a substantially lesser risk is observed. Ross (2004b) surveys studies attempting to replicate these results using different data and show that they have had mixed results. Hegre (2003) finds similar results as Collier & Hoeffler for war (over 1000 deaths) and resource dependence, but not when using other lower conflict thresholds. Fearon and Laitin (2003) dismiss resource dependence explanations in civil war and Elbadawi and Sambanis (2002) find enough inconclusive results to support an argument against resource dependence. However, both Collier and Hoeffler (2004) and Fearon and Laitin (2003) find oil dependence has a positive and significant impact. The presence of diamonds/precious stones is not found to significantly contribute to civil war onset in studies by Ross (2004a) and Humphreys (2003). Lujala, Gleditsch and Gilmore (2005) find the role of primary diamonds to lessen the risk of conflict onset, while secondary deposits increase the risk of ethnic civil wars, particularly in the post cold war era.

These studies, however, suffer greatly from aggregating data to the country level. There is a limit to how much data on a country's exports of primary commodities as a share of GDP can say about this, since there is no way to arrange information so that one can know that the rebel group was active where the lootable resources are. Alluvial diamond deposits, for instance, do not have to contribute much to a country's total GDP in order to generate sufficient incomes to sustain a rebel group if the country is large and the government's capacity is low. Studies that relate the specific location of conflicts to the specific location of diamonds or other commodities have a much greater potential to disclose any relationship.

Accordingly, studies of conflict duration typically find a stronger relationship between natural resources and conflict, as these studies allow coding whether the natural resources exist within the conflict-affect regions. Several studies suggest that the presence of precious minerals becomes significant during the conflict as a source of income. Fearon (2004) notes the role of contraband in lengthening conflicts. Buhaug, Gates & Lujala note that diamonds within the conflict zone increases the duration of the conflict (2005). Ross (2004b:345) concludes a similar relationship is evident for

drug production – rebels are not initially involved in the drug trade but with territorial control and a market, rebels may grow and produce drugs to fuel the rebellion.

A few studies have also moved to use data at a finer geographic level to study the role of resources for conflict onset. Lujala's (2005) study uses oil data differentiating between onshore and offshore production, diamond deposit information from DIADATA<sup>1</sup> and other data on drug cultivation and precious gems are from earlier studies by Lujala (see 2003). This research is able to empirically test Le Billon's assumption that the role of resources in encouraging conflict is determined by the physical concentration of the resources and the 'lootability' of particular resources (2001: 571-2).

Efforts already made to disaggregate general conflict data confirm that results can be a function of the scale of measurement. In Buhaug and Lujala (2005), the mismatch of country level information and conflict sites is rectified through the creation of 'conflict zones'<sup>2</sup>. Unlike the radius (and therefore circular zones provided in the PRIO/Uppsala set), the conflict zones are shaped to fit the existing knowledge about the conflict, such as whether it stopped at border regions.

### 3 The ACLED Data

The ACLED means to further disaggregate information and layer the conflict territory with other salient variables.

The goal of this stage of the project was to generate information regarding 1) rebel fighting locations, 2) annual perceived changes in rebel fighting (unless stagnant), 3) start/end dates as noted by fighting; 4) actual battle sites and 5) faction bases. At present, Central and West Africa are covered – including Angola, Democratic Republic of Congo, Republic of Congo, Uganda, Rwanda, Burundi, Ivory Coast, Guinea, Sierra Leone and Liberia. In total, the data record 4145 events over the 1960–2004 periods.

The data are based on a number of information sources- primarily press accounts from Keesings, *Africa Confidential*, *Africa Research Notes*, *African Contemporary Reports*, books written on particular

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<sup>1</sup> DIADATA also used in Gilmore et al., 2005; Lujala, Gleditsch and Gilmore, 2005.

<sup>2</sup> The Uppsala dataset contains a location variable which is extended by coordinates of said location. This variable is a result of Buhaug's coding of the conflict center point, noted in the Uppsala codebook:

"In order to specify the geographic location of each conflict, every observation is assigned a conflict center point by its geographical coordinates (latitude and longitude). The conflict center is fixed, so as to represent the geographic mid-point of all significant battle-zones during the conflict, including territory occupied by the opposition actors." This variable was used in Buhaug and Gates' 2002 study of the geography of civil war which highlighted the importance of geographical information in conflict analysis.

conflicts, and in later years, IRIN and other humanitarian agencies. The Peace and Conflict department at Uppsala also had a wealth of information on conflicts from 1989 to the present.

The fundamental unit of observation in ACLED is the *event*. Events always involve two actors – a rebel group and a government<sup>3</sup> – and are coded to occur at a specific point location and on a specific day. Most of the events are battles, but the dataset records on other activities. The dataset includes information on and distinguishes between six types of events:

- 1) a battle resulting in no change of territory
- 2) a battle resulting in a transfer of territory to the rebel actor
- 3) a battle resulting in government forces recapturing rebel held territory
- 4) a rebel base or headquarters established
- 5) rebel activity that is not battle related (e.g. LRA presence/civilian killings in an area)
- 6) a territorial transfer to the rebels at an unknown date.

Event 6 is necessary due to sometimes incomplete information regarding territorial transfers. If the literature notes a government recapturing territory but does not note a previous rebel capture of territory, event 6 is coded as having occurred at a previous date.

Each event is also associated with a location (name, coordinates and elevation). Efforts were taken to ensure most the specific location possible was coded for. However, if rebel actors overtake a larger territory (such as a province/administrative region) within a country, this is noted as a regional transfer with a unique regional ID.

The event is not the only observational unit in the dataset, however. It consists of five interrelated data tables, each corresponding to one observational unit. Below is a summary of their content. More details on the coding of each field/variable are given in Appendix 1.

- An *actor* table contains basic information pertaining to each government or rebel group. This table contains information regarding active periods, ethnic affiliation (if any), home territory, whether this actor is descendant of another actor (e.g., a government that was previously a rebel group). The actors are identified by a unique actor ID number.
- A *conflict dyad* table records information on each pair of actors that are on opposite sides of a civil war. One of these is by definition the government of the country.<sup>3</sup> The conflict dyad table includes information that allows linking to relevant records in the UACD and in the UCSD

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<sup>3</sup>The dataset includes a small number of conflict dyads where none of the parties are governments, namely in cases where one of the actors later became the government (e.g. MPLA in Angola, 1975).



dyadic dataset. The conflict dyad also contains information on the start and end dates of dyadic conflict.

- An *alliance* table is uniquely identified combinations of actors allied in operations during a particular time period. This alliance information is added to the battle event table.
- A *battle event* table contains information on battles and other events.<sup>4</sup> For each event, we code which UACD and UCSD conflict dyad it belongs to, the location of the battle represented as name of city, town, or region, and the latitude and longitude point of that location, the elevation of the point, the battle event type (see below), and the source(s) used to code the event. The table also includes information on whether a territory transfer resulted from the event, to which actor the territory was transferred. GIS layers/shape files are then created to show these transfers.
- A *province* table that contains information on entire provinces and other geographical areas. Territory transfers coded in the battle events table refer to entries in this table.

## 4 Relation to the Uppsala Armed Conflicts Dataset

This dataset has been created to complement both the PRIO/Uppsala dataset (UACD) and the extended dyadic version of that data created by Cunningham et al. (2005). Therefore, each battle event is nested within a conflict dyad; by PRIO/Uppsala definitions these dyads should be between a government and a rebel group (see deviations to this later). Each dyad is clustered within a PRIO/Uppsala conflict ID.

In the present version of the ACLED dataset there are a few deviations from the UACD dataset. In each case, such deviations have been noted in the database as an “Uppsala deviation”. At present, up to twenty five actors used in this beta version are considered UACD deviations.

The deviations are due to various reasons. The Uppsala project requires two credible sources for including a conflict in their list. Since the ACLED data deals with smaller events, one credible source noting a battle is sufficient. Moreover, since the events also include uncontested transfers of territory or cities, no fatality minimum is necessary. This also affects dating ‘start dates’ may differ from the other complementary datasets as the initial coding of rebel activity is not based on the number of deaths or the stated goal of a rebel organization. The same rule applies for end dates – when activity (as far as noted in the literature) is no longer attributed to a rebel group; the last date becomes the de facto end

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<sup>4</sup> ‘Battle event’ is perhaps not the most appropriate name as it records a number of occurrences besides battles.

date. This leads to a concern about how onset is coded with these data- at present no hard rules dictate what constitutes the ‘onset’ of a civil war.

The data have other deviations from the previously mentioned complementary sets - most notably in which actors, dyad and events are included. ‘Actors’ are governments or rebel groups. Each government within a county is a different actor (Ugandan government from 1965-1971, Ugandan government 1971-1979, Ugandan government 1979-1981....) and each rebel group is a separate actor unless the literature is unable to differentiate between the rebel groups operating in an alliance. For example, many different militias are noted as active after Museveni gained power in 1986. However, the literature attributes the violence to a small number of active groups which are coded for in the data. Furthermore, on occasion, the ACLED codes rebel groups which have melded into each other as one actor. The Ugandan Holy Spirit Movement and the Lord’s Resistance Army present such a case. Although there is a short period of overlap (and some sketchy reports of clashes between the two), both groups are comprised of the same people, have the same motives and operate in the same area.

Dyad deviations are a result of two separate issues. The first is previously unrecognized actors as part of a dyad – examples are the Mayi-Mayi in DRC or the Tutsi rebellion that preceded the AFDL in (then) Zaire during 1996. Of all dyads, 24 combinations can be considered UACD deviations. The second reason for deviations concern the definition of armed conflict. As defined by the UACD codebook, an armed conflict is between a government party and a rebel party. However, considering that the purpose of this dataset is to track rebel events, there are times when events- such as battles- are conducted between two rebel groups. Such activity, when noted in the literature, is included here. The reason for doing so is that it provides a more comprehensive understanding of rebel activity and motivation. For example, a faction of the RCD in DRC from 1999-2004, RCD-Kisingani, did not engage with many government troops at all (due to the lack of government troops in the area at that time); however, the faction did engage in significant combat with its parent group- RCD-Goma - and other militias in the area. Some of those militias were active government proxies at the time. Hence, to leave out this information would be to not recognize the complexity of the situation at a local level. Another example is the Hutu-Tutsi militia killings in both Rwanda and Burundi during the 1990’s. Although neither militia are recorded in the UACD dataset, in many cases one group was considered to be government sponsored/supported, while the other engaged in combat to defend life and territory.<sup>5</sup>

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<sup>5</sup> The COW intercommunal data includes these events.

## 5 Data Exploration

Twelve UACD conflicts (see codebook for definition of conflicts) are currently fully coded in the ACLED dataset. The dataset has presently complete coverage of eight countries. Within the twelve larger conflicts, 101 active dyads are coded for created from a list of 61 actors. Additional countries from the Great Lakes/Central Africa, West Africa, and the Balkans are scheduled to be coded in the future, including Cote D'Ivoire, Guinea, Sudan, and the Balkan conflicts.

In a preliminary analysis of the current data, it is clear that rebel movements vastly differ in the both the area and the amount of territory they operate in. Table 1 shows the percentage of each country's territory which experienced activity attributable to a specific rebel group. The percentage is still a rough estimate as it is based on administrative regions or provinces (see regional table description). If a rebel group had activities within a province, the area of that province was added to the total area coded as affected by rebels. However, since some territory was lightly affected, a second percentage notes whether the rebel group was significantly more active in specific territories. For example, the ADFL primarily operated in the Eastern provinces of DRC before their march to Kinshasa. Light resistance was encountered outside of the eastern area, but each province still experienced rebel activity- 97% of the country as an estimate. However, 53% of the country saw heavy battles (the eastern provinces area total).

The ACLED dataset allows generating more precise estimates of the extent of conflict zones than those presented in Table 1, since the data includes information on the precise location of each event. An estimate of this sort requires deciding how to treat individual events outside the area where the majority of the activity is going on, however.

Very few conflicts extend throughout the entire country. Those that do – AFDL, UNITA, NRA and UNLA, NPFL, RUF – were eventually successful in gaining control of the government (RUF through a Junta arrangement for a short period of time). At present, there seems to be no relationship between length of conflict and extent of territorial cover.

Table 1. Estimated share of country's area with conflict activity, by rebel group 1960–2004.

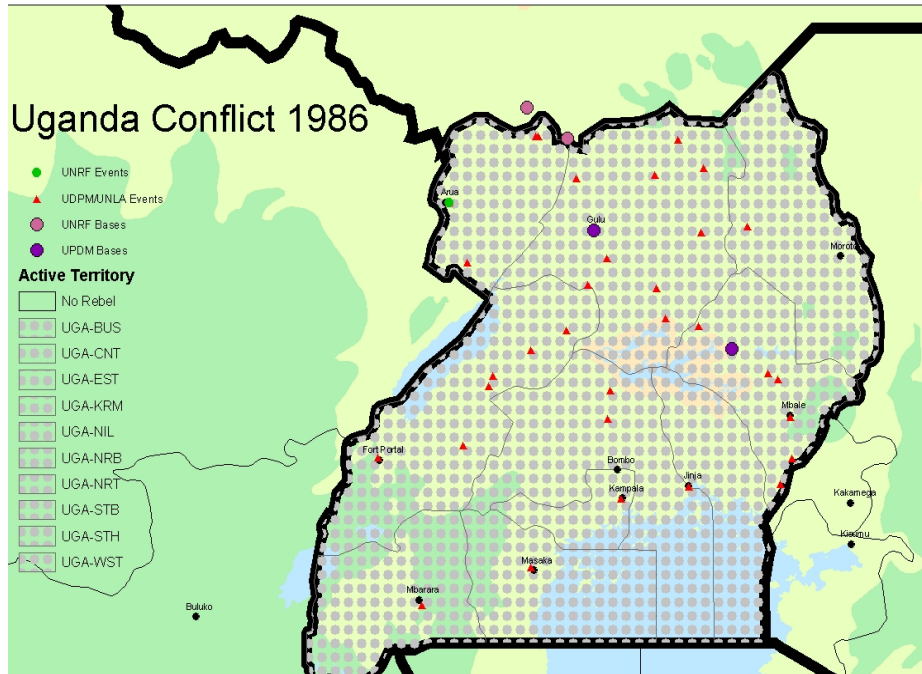
Country	Rebel Group	1 Total % of Country with Rebel Activity <sup>6</sup>	2 % of Country Most Active
Democratic Republic of Congo	AFDL	97%	53%
	CNL	77%	53%
	FNLC	21%	21%
	Hutu Militias/Ex FAR	11%	11%
	Katanga Rebels	32%	32%
	Mulesist Forces	2%	2%
	MLC	17%	
	Opposition Militias		
	RCD	42%	11%
	RCD-Faction	10%	10%
Uganda	South Kasai Rebels	14%	14%
	ADF	34%	14%
	HSM/LRA	44%	16%
	NRA	64%	19%
	Tanzanian Troops/UNLA	100%	25%
	UNRF/UNRF II	24%	7%
	UFM	9%	9%
	UPA	16%	16%
	UPDM/UNLA	100%	44%
	WNBF	7%	7%
Burundi	CNDD-FDD	63%	
	Hutu Militias	27%	27%
	Palip Hutu-FNL	52%	7%
Rwanda	FPR	61%	
	Hutu Militias	46%	
	Inyenzi	34%	
	Palir	39%	
Republic of Congo	Cobras	82%	10%
	Cocoynes	18%	18%
	Ninjas	30%	10%
	Ntsilolous	10%	10%
Angola	FNLN	53%	
	MPLA (pre Independence)	50%	
	UNITA	100%	
Liberia	INPFL	5%	
	LURD	47%	
	MODEL	11%	
	NPFL	100%	
	Ulimo-J	20%	
	Ulimo-K	20%	
Sierra Leone	RUF	100%	
	Ulimo-J	15%	
	Ulimo-K	15%	

<sup>6</sup> Both percentages are based on how many administrative regions saw rebel activity

In the following pages, we present a series of maps that demonstrate how the ACLED data may be used to graphically illustrate local and time-specific data. The maps display two different compilations of information accessible from the ACLED data. The first series of maps (1–19) show the territory affected by conflicts for every year in the period 1986–2004. In these maps we do not distinguish between the activities of different rebel groups and their interactions with the government. The second series of maps (20–22) show the territories within which individual rebel groups were active. Either of these types of maps can be used to show whether a) the conflict(s) was nationwide or specific to a small area, and b) whether and where rear bases in neighbouring countries were developed and used. In conjunction with maps of the localization of ethnic groups, different types of terrain and resources, maps can be used to show c) whether the conflict was openly associated with a particular ethnic affiliation, d) what type of terrain a rebel group was operating in, e) what type of terrain a rebel group headquarters was in and f) how effective the state's military was in pursuing rebel activity in rough terrain.

Maps 1–19 show annual descriptions of Uganda's conflicts. To save space, we here combine information for the entire year in separate maps. The dataset itself, however, allows a much more fine-grained temporal coding. The internal borders within the country are the borders between administrative regions as designated by the Ugandan government. Regions which experienced conflict at any point during the year are shaded with grey circles. The specific *events* which occurred in each region are designated by points. Each rebel group is designated by points with different colors and shapes – points represent any event (battles, activity, held territory). Headquarters of each rebel group active during the year are designated by separate, individually marked circles. Map information is shown by a habitat map and although elevation information is not displayed (although is a variable in the data itself), the general type of terrain is shown.

Map1

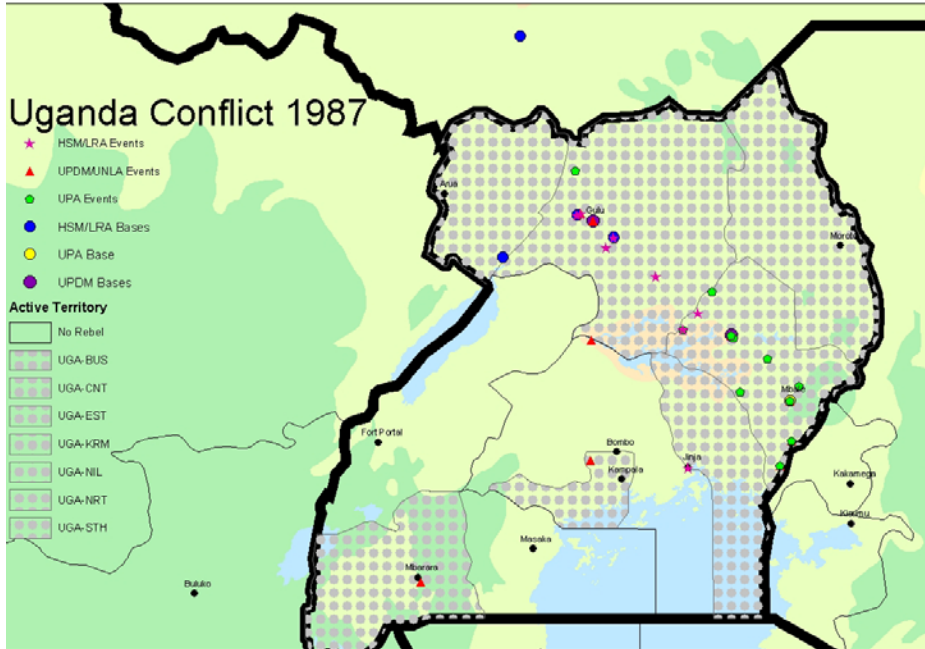


Map 1: displays conflict locations during 1986. We chose this year as a starting point since it is the first year of Museveni's government. Up to January 15, Museveni's NRA is represented as a rebel group fighting the Obete government. From January 16, however, the NRA is coded as the government. The NRA gained official control of Uganda in January after a rebel campaign lasting five years. Museveni based his campaign initially in the centre area of Uganda (as it is the home of an ethnic group who supported the overthrow of the Obete government). In the last year, the NRA gradually gained hold of territory in the south and west before taking over the capital region.

Although NRA succeeded in overthrowing the government it was not able to secure control of all of Uganda's territory. Uganda was unstable at the time of the victory due to a) people for the north, east and northwest not in support of the NRA or Museveni and b) the retreating Okello/Obete government's military who subsequently became a rebel group fighting the new government. For this reason, the civil war continued after the NRA victory. A number of mutinies occurred throughout the country immediately after the NRA claimed victory. A rebel organization UPDM (Ugandan People's Democratic Movement) was allied and made up of a number of UNLA troops (previously the country's military). After the mutinous troops organized their resistance, the campaign was centered in the northern and eastern regions, where these rebels and the previous government had a strong ethnic connection.

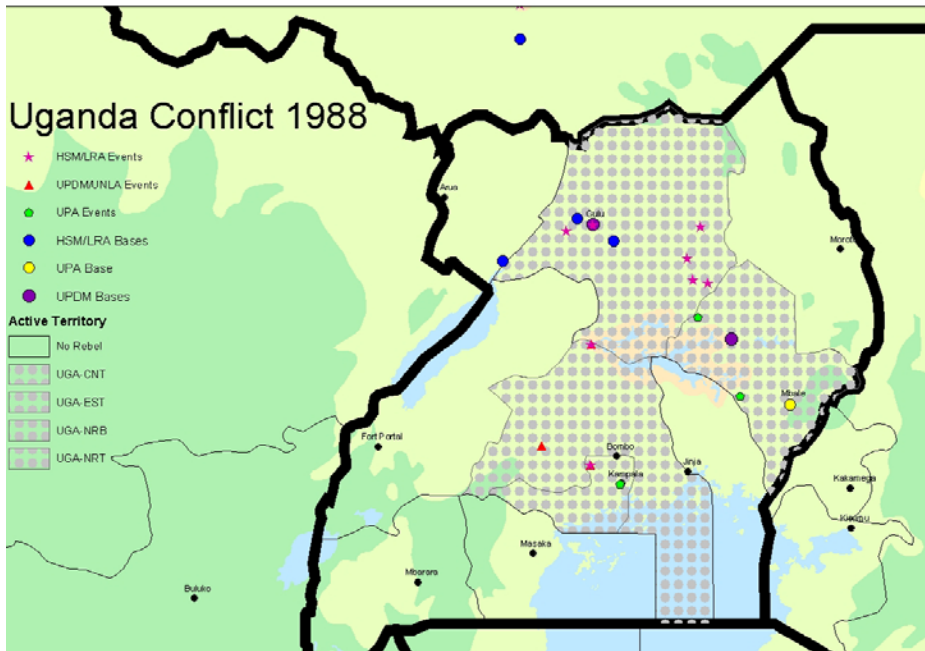
The other active group is the UNRF or Ugandan National Rebel Front from the Islamic West Nile Region. This group is made up of Amin supporters (as this is the region where he is from).

Map 2



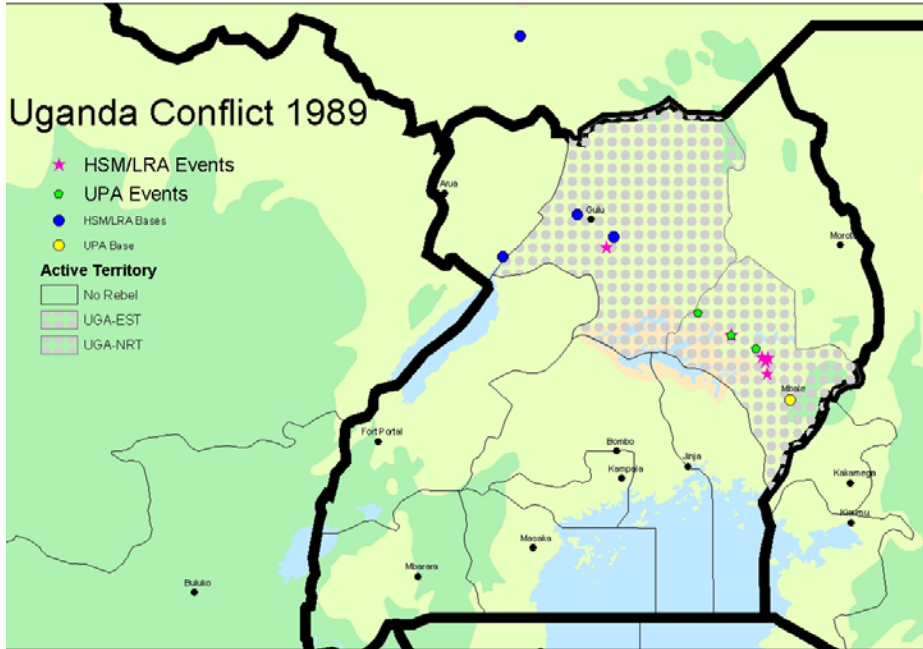
Map 2: displays the conflicts occurring in 1987. Although conflicts involving the rebel groups occurred mostly in the north and eastern regions, attacks on major military garrisons in the south and near Kampala was undertaken by the UPDM and UNLA rebels. Map 2 introduces two more rebel groups- the HSM/LRA (which was just called the Holy Spirit Movement at this time) and the UPA (Ugandan People’s Army).

Map 3



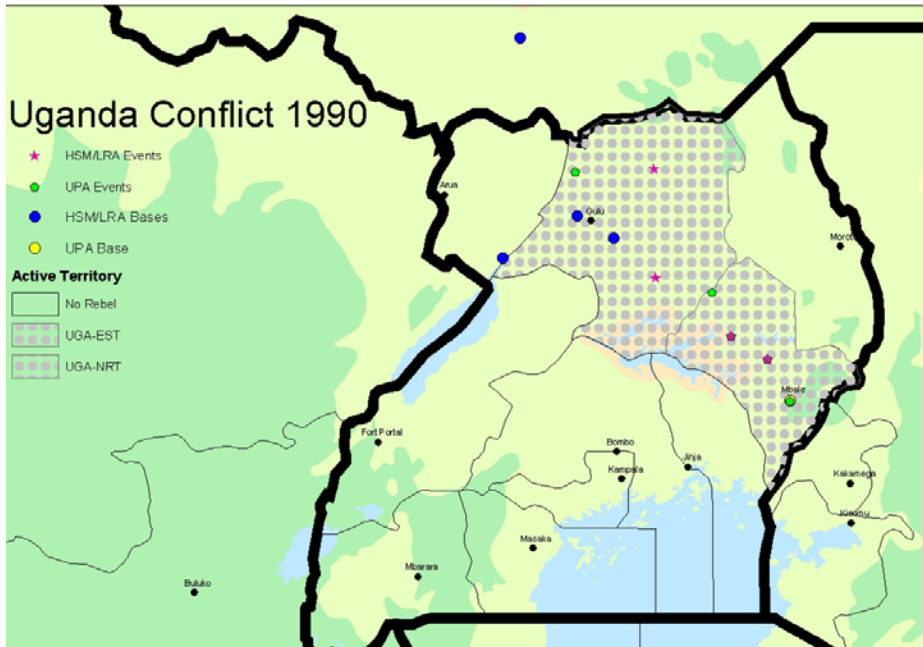
Map 3: primarily shows the different regions affected by the rebels in 1988. The HSM/LRA is the most active rebel group and is shown operating closer to Kampala, although no bases or long-term entrenchment is obvious. The HSM/LRA is active in the Acholi ethnic areas.

Map 4



Map 4: displays a smaller conflict area as the UPDM/UNLA was defunct in 1989; rebels from this group are reported to have gone into the HSM/LRA group. The UPDM/UNLA transferred control of towns to the HSM/LRA in the east. Most of Uganda is conflict free.

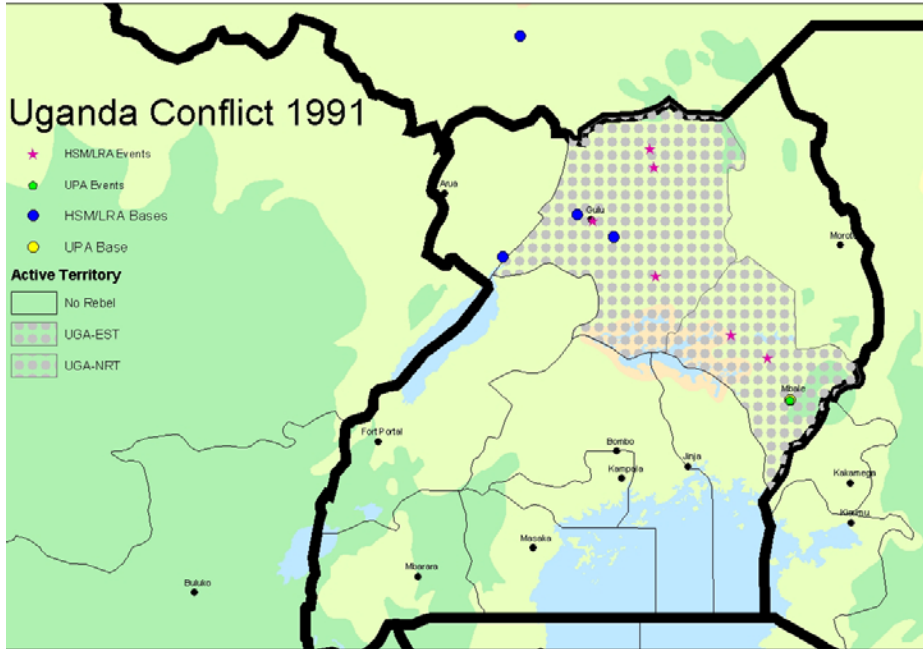
Map 5





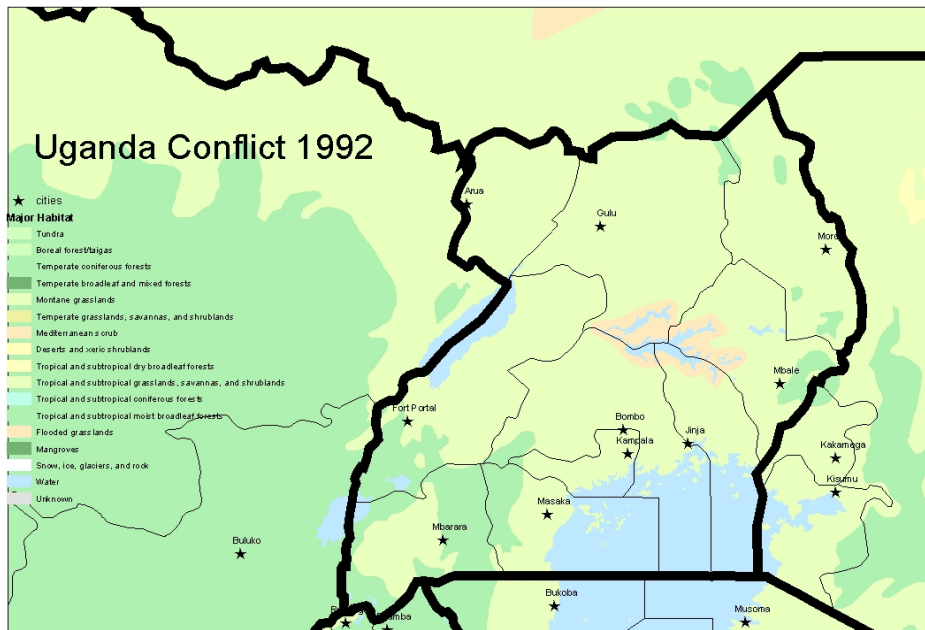
Map 5: shows the continued entrenchment of conflict in 1990 in the northern and eastern regions of Uganda. The northeast may be conflict free due to the different ethnic makeup of the region compared its neighbours.

Map 6



Map 6: illustrates the continuation of the pattern evident in map 5 also in 1991 – with slightly less activity for the UPA.

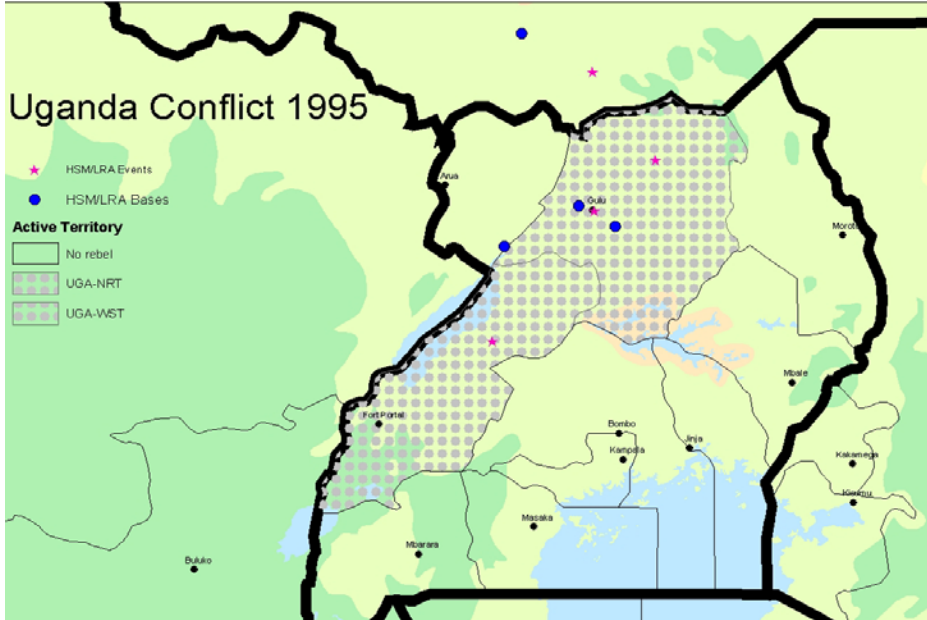
Map 7





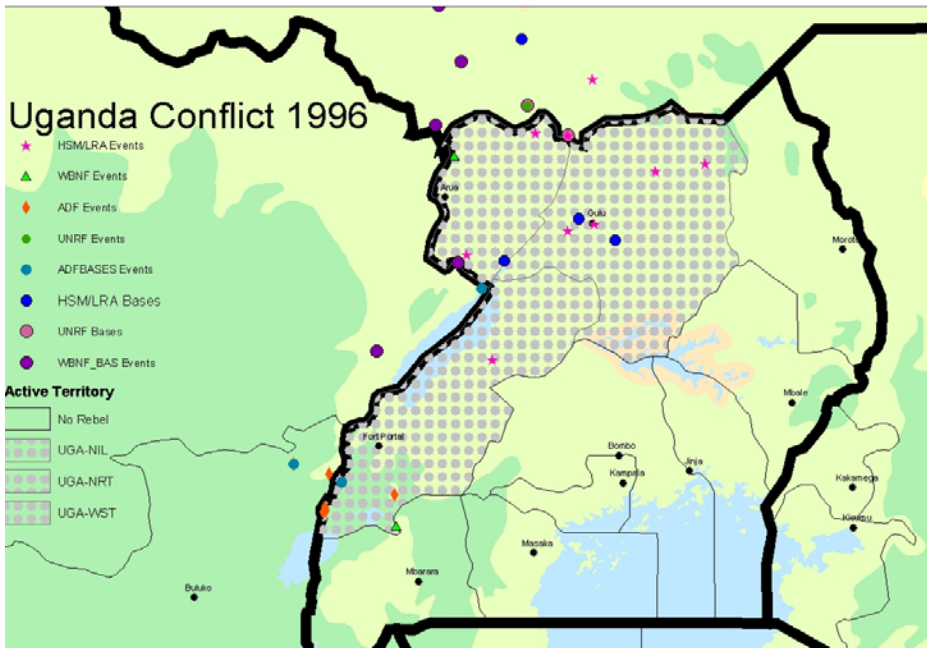
Map 9: shows renewed conflict events in 1994. The LRA is active in both the north and the west, with established bases and events outside Uganda. As noted above, the LRA is mainly made up of, and active in, Acholi.

Map 10



Map 10: displays a conflict pattern in 1995 which is very similar to 1994.

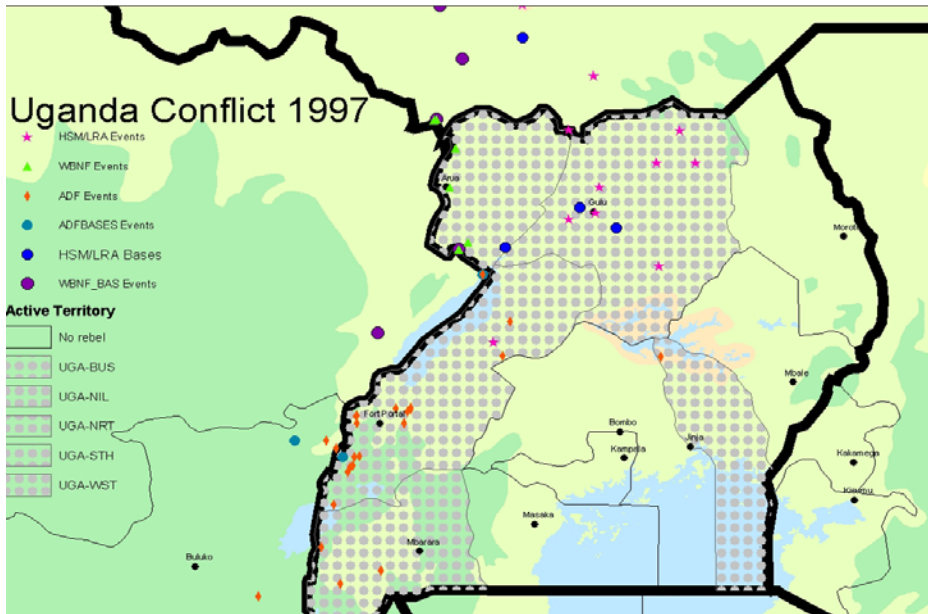
Map 11



Map 11: shows the introduction of new rebel movements. The West Nile Bank Front is active in the Nilotic area of the West Nile Province. This group is made up of the Nilotic region and supports a

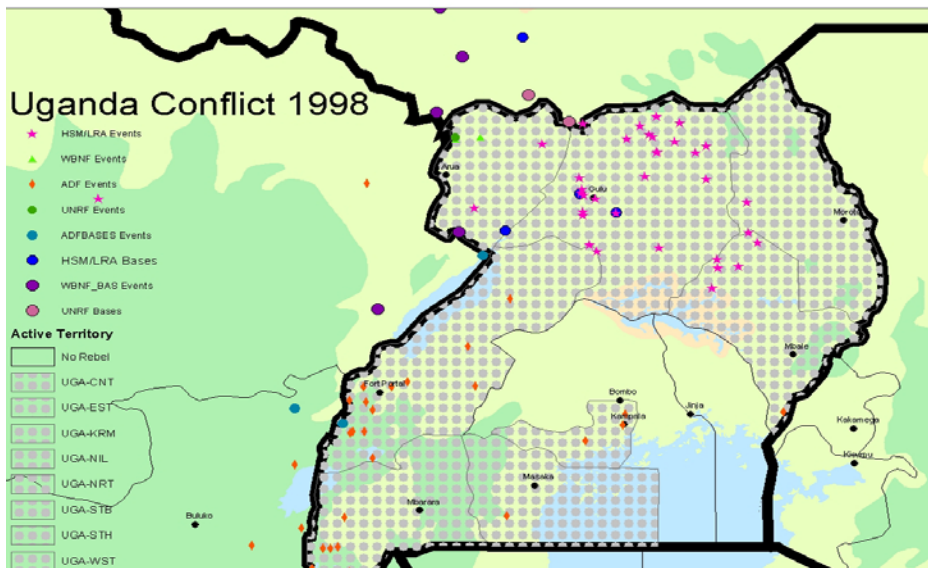
return of Pro-Amin/Muslim leaders. It is supported by Sudan where it has its main bases. The ADF is a group located in the rough terrain area of the Ruwenzori Mountains, although they also have bases in DRC where they are allied to Hutu militants. They defined themselves as a western Ugandan group and their activities are primarily located in the west and south. They are associated with NALU- a militant Islamic group in the area and originally from the West Nile region in the north.

Map 12



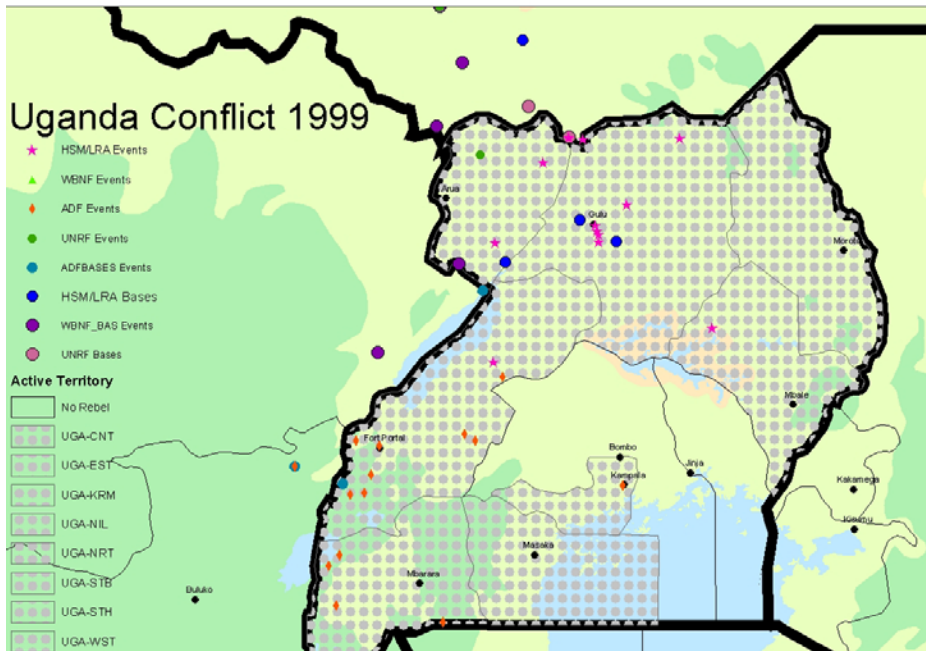
Map 12: 1997 continues the trend from 1996 – the ADF ventures into the centre of Uganda and the WBNF is more active.

Map 13



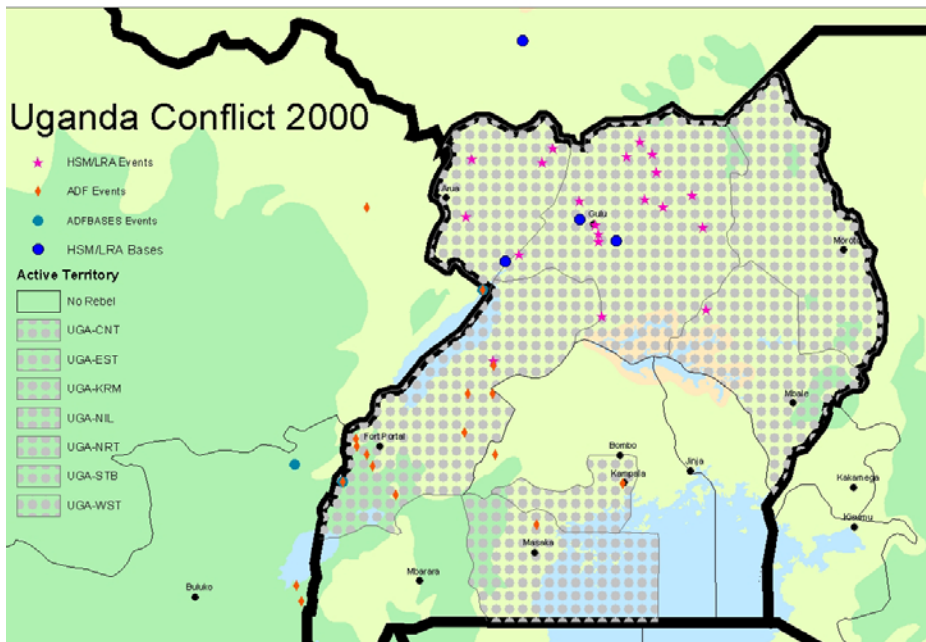
Map 13: shows a tremendous rise in activity across the two main rebel groups in 1998 – the LRA and the ADF. The ADF bombed the capital and extended its reach across southern Uganda. The LRA was much more active in the north and extended activities into the northeast and eastern provinces. New rebel activity is reported from the UNRF, also in the West Nile region. This group is sometimes referred to as the UNRFII as it is a continuation of the UNRF group from 1986.

Map 14



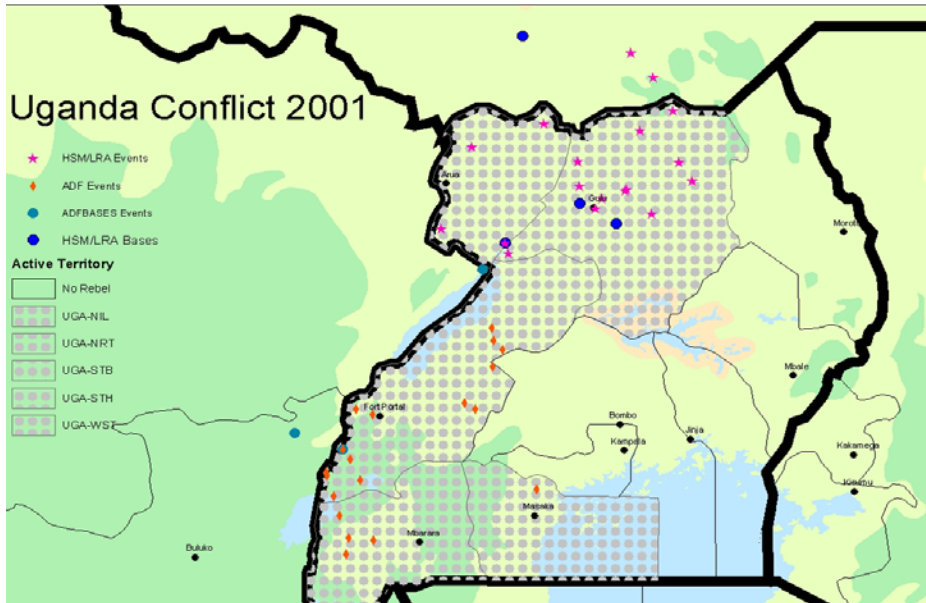
Map 14: the conflict patterns and extent in 1999 is similar to 1998.

Map 15



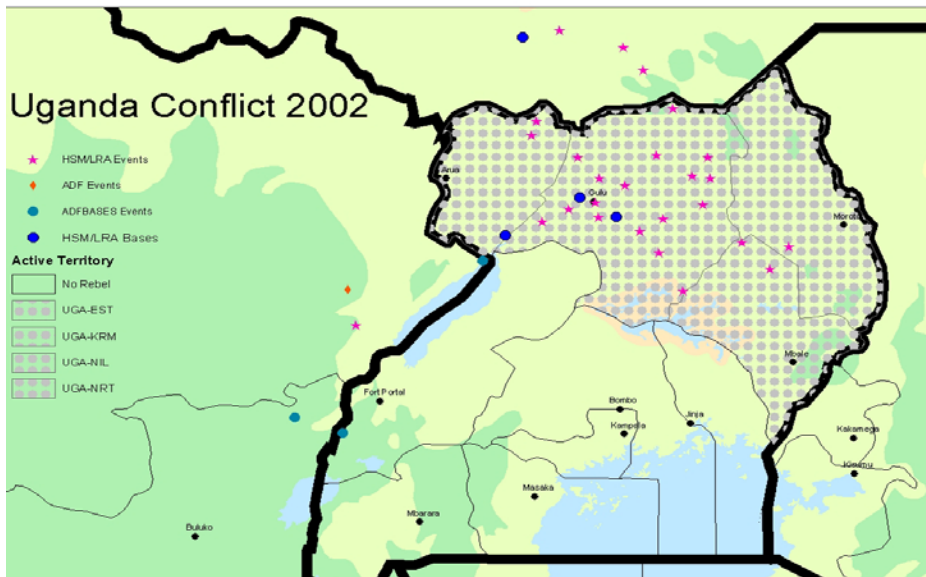
Map 15: in 2000, only the LRA and ADF were active. The ADF is still extended throughout south-central Uganda. The LRA is minimally active in the eastern and Karamoja regions.

Map 16



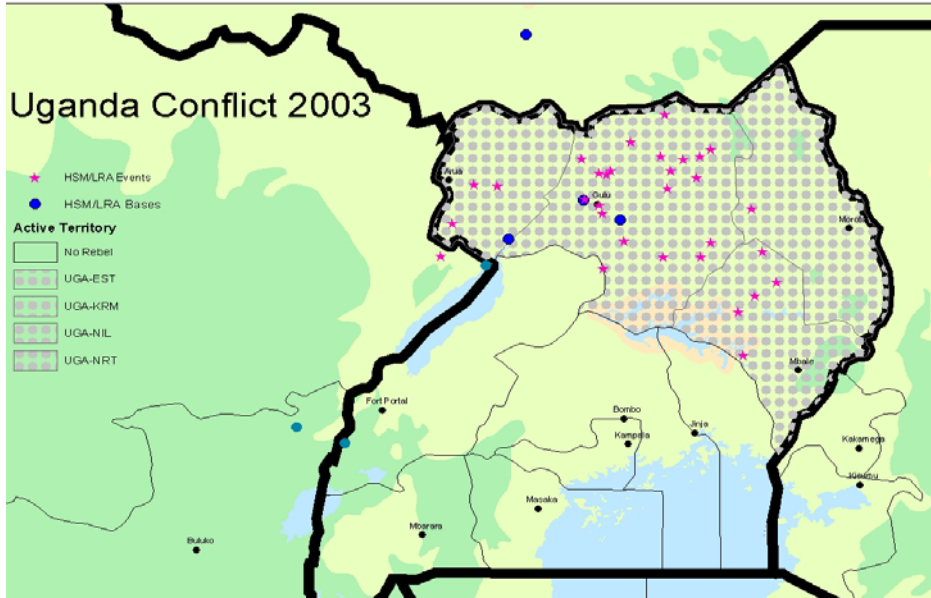
Map 16: the LRA retracted and moved into the West Nile region (possibly due to Sudanese support). The ADF retracted from the center and renewed attacks on the south of Uganda.

Map 17



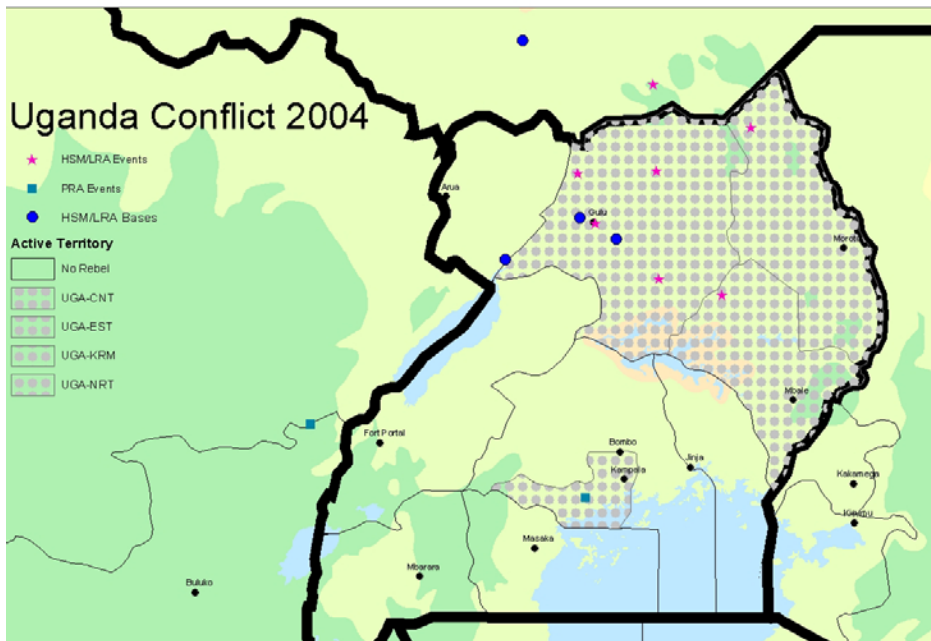
Map 17: after a massive government assault against the ADF, a peace agreement is signed in 2002. Also, in 2002 the Ugandan government received permission to venture into Sudanese territory to attack LRA bases- hence a number of battles were fought in Sudanese territory.

Map 18



Map 18: due to the inability to operate in Sudan's southern area from late 2002, the LRA renewed attacks in Uganda's northern and eastern regions in 2003.

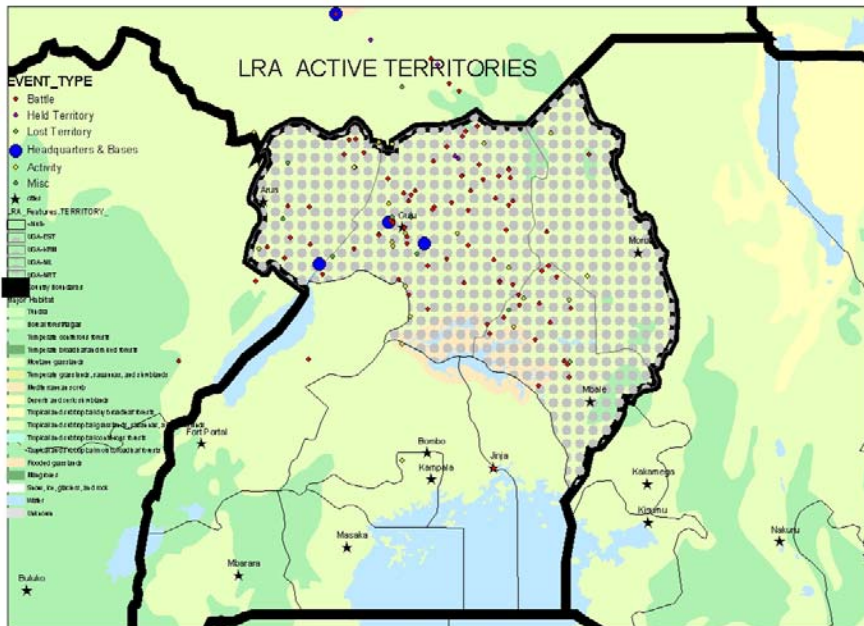
Map 19



Map 19: the LRA is active in the north and east in 2004. A new group – PRA or People's Redemption Army – has bases in DRC and is active in the capital region. This group is said to be an extension of the ADF.

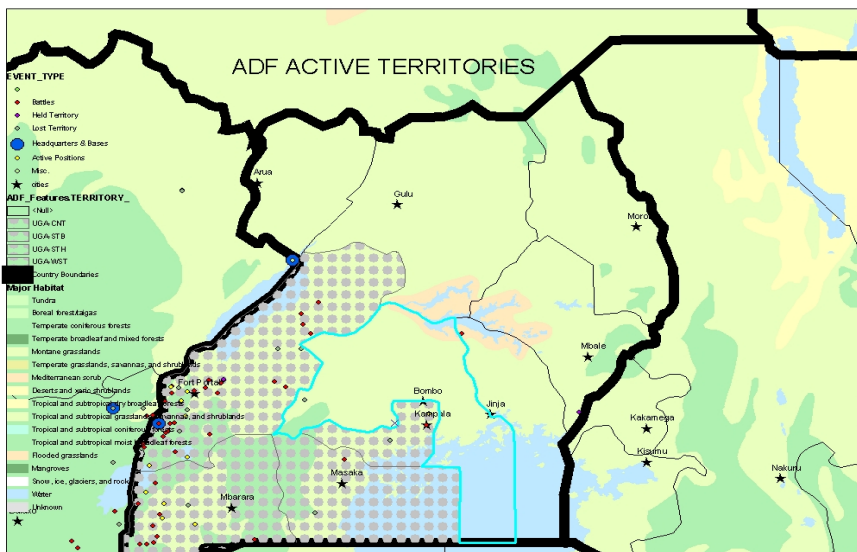
The maps can also be by group instead of by time. Maps 20-22 demonstrate how the dataset may be employed for this purpose.

*Map 20 Extent of Activity, HSM/LRA, 1986–2004*



Map 20: shows HSM/LRA activity during its existence. Due to the little activity in the western region, it is not shaded. It is clear from the map that the northern and eastern regions were affected the most by this group.

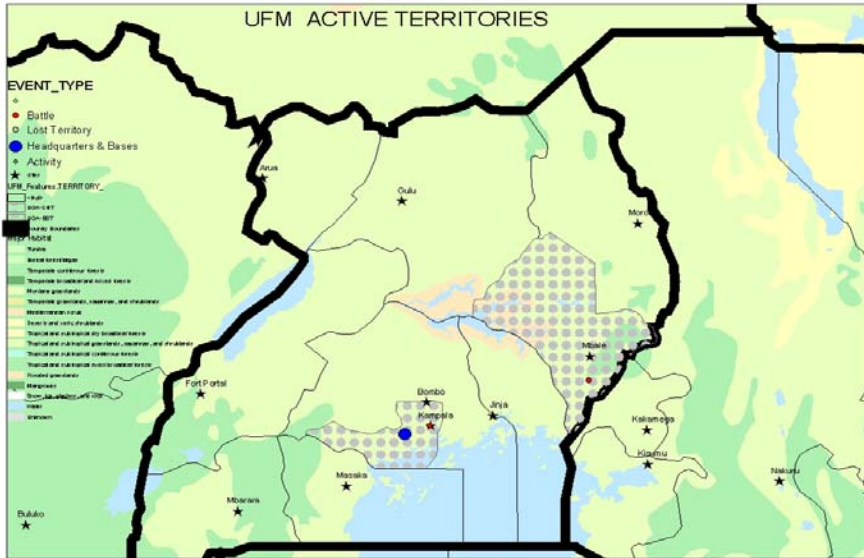
*Map 21. Extent of Activity, ADF, 1996–2002*





Map 21 shows the extent of ADF activity. Although the ADF and LRA are active at the same time, there is no overlap in regions of activity or in foreign supporters. ADF have bases in the rough terrain dividing Uganda and DRC and in the Virunga forest region between Rwanda, DRC and Uganda.

Map 22. *Extent of Activity, UFM, 1981–82*



Map 22 displays the extent of UFM activity during their short time as an active rebel group. The UFM was mainly active in the capital region; however during their alliance with the NRA they were responsible for some eastern actions.

## E. Conclusion

This paper introduces a dataset which has disaggregated civil war data by location and over time. Presently, the beta version of these data covers eight countries in Central and West Africa. We intend to expand the data to cover the remaining conflict countries in West Africa, Sudan and the Balkans. Information on non-conflict countries will also be collected in order to provide comparisons across cases of events and non-events.

The intent is to use the data to supplement recent quantitative studies that risk making erroneous conclusions about local level processes and events as they researchers only have access to national-level data. The initial exploration of the data (see table 1) and the series of maps presented in this paper indicates how civil war analysis using country-level measures may obtain biased results. The average percentage of area covered by civil war from the data sample is approximately 41% and most conflicts

initially start out as very local phenomena. In addition, the most intense fighting is often over an even smaller proportion of the country.

Local level measures can be used to answer and clarify a number of questions raised by the reviewed literature regarding territory, resources, population and ethnic issues and state capacity. Future plans to use the data include overlaying the information collected with relevant ethnic, resource and improved terrain data and adding road and population information. If available, data on military garrisons and police stations would provide basic proxy measures of state strength. Together, these data can be analyzed using geostatistical techniques available in GIS software.

In closing, the purpose of the dataset is to contribute to the larger GROW-Net project which aims to disaggregate data and research in order to make the group/sub region the primary focus on studies. This larger project means to reject the assumption that civil war are separate and individual occurrences unrelated to both neighbouring conflicts and neighbouring conditions. It means to trace the means by which conflict diffuses and influences other civil conflicts. In addition, the larger project intends to understand the role of previously significant variables (such as GDP, government) on a local level to understand horizontal differences and their effects on civil wars.

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## Appendix 1: Detailed Coding of Variables

### ***Actor Table***

The Actor table is where all actors are listed along with ancillary information.

### ***Actor Number***

Records a unique number for each actor.

### ***Acronym***

Acronym of actor.

### ***Full name***

Full formal name of actor.

### ***Begin Date***

Month and year actor began.

### ***End Date***

Month and date actor ends.

### ***Ethnic Affiliation (if any)***

Professed or presumed ethnic affiliation of the majority of combatants within the actor.

### ***Home territory***

Territory from which actor originated or ethnic area that the actor is associated with.

### ***Descendant***

Records the actor number of the organization this group was previously known as. For example, if a rebel group becomes the official government, the rebel group ID number is recorded here. If a government is overthrown and the army forms a rebel group against the subsequent government, the government number is noted here.

### ***Goal***

Professed goal of actor

### ***Alliances***

ID numbers of alliances actors are involved with.

## ***Conflict Dyad Table***

### ***Conflict Id***

(From Uppsala codebook) Every conflict has its own four-digit Conflict ID, ranging from 1010 to 3270. Uppsala has 226 different conflicts that are ordered by Start\_date.

### ***Conflict Sub ID***

(From Uppsala codebook) Every sub conflict is identified by the SubID variable. The default value is 0, and every new sub-conflict has a new number. Thus, a conflict with two sub-conflicts is in reality divided into three conflict periods with their individual start dates. Most conflicts do not have sub-conflicts.

### ***Actor ID 1***

Unique Id number assigned to government troops (different regimes are assigned different number—check if number/actor name is within the correct time frame).

### ***Actor ID 2***

Unique Id number assigned to rebel groups.

### ***Dyad ID***

A unique identifier for every government – rebel combination that occurred within the scope of the conflict. If the government of a country changed but the rebel group is still active, the dyad ID changes due to the government change.

### ***Begin Date***

This records the begin date of the latest actor. This will typically be the first date of the rebel actor existence, but in the event of changing government and continuing rebellion, it will be the start date of the new government.

### ***End Date***

This records when the armed incompatibility between government and rebel ended (by whatever means). No fighting will be recorded after this date.

### ***Location***

This notes the country of the incompatibility and armed conflict.

### ***UCSD Dyad***

This notes the corresponding UCSD dyad information. See notes above for clarification.

***UCSD sequence Number and UCSD Period***

See notes above.

***Battle Event Table***

The battle event table is to record the following:

1. Actor fighting location
2. Territorial transfers
3. Start/end dates of fighting

***Uppsala ID***

(From Uppsala codebook) Every conflict has its own four-digit Conflict ID, ranging from 1010 to 3270. Uppsala has 226 different conflicts that are ordered by Start\_date.

***Sub ID***

(From Uppsala codebook) Every sub conflict is identified by the SubID variable. The default value is 0, and every new sub-conflict has a new number. Thus, a conflict with two sub-conflicts is in reality divided into three conflict periods with their individual start dates. Most conflicts do not have sub-conflicts.

***Dyad ID***

A unique identifier for every government – rebel combination that occurred within the scope of the conflict. If the government of a country changed but the rebel group is still active, the dyad ID changes due to the government change.

***Actor 1***

Actors are considered armed groups with a political goal, including government and rebel groups. The variable “Actor 1” notes the actor who is the government. All actors are recorded according to their number.

***Actor 2***

Actor B records the rebel group in the conflict.

***Location***

This variable records the battle site in the smallest spatial unit possible. Depending on news reports, units can be villages, towns, cities, or regions.

***Location Coordinates***

These variables (2) record the latitude and longitude points for the location noted above. Coordinates are available from the Global Gazetteer Version 2.1, found at <http://www.calle.com/world/>.

### ***Elevation***

This variable records the elevation of the location in meters.

### ***Battle Event***

Records the type of event that occurred at noted location:

- 1) Battle occurred/continuous activity without change in territorial status quo
- 2) Battle won by rebels and battle location transfer from actor 1 (government party) to actor 2 (rebel party)
- 3) Battle lost by rebels and battle location transfer from actor 2 (rebel party) to actor 1 (government party).
- 4) Newly established headquarters in battle location
- 5) No battle, but rebel presence or a territorial transfer to a rebel. If a territory transfer occurred, the territory ID number is noted.
- 6) Proxy transfer without exact date known

### ***Territory Transfer***

This variable notes whether an entire province/county/administrative zone (as defined by the state) is controlled by one of the parties. Each province/county/administrative zone is recorded in the Province Table with a unique ID number. When either party controls an entire unit, this is noted in the “territory transfer” column allowing the territorial acquisitions of either party to be built up over time or noting the loss of territory to the other party. The default assumption is that all territory is under government control until transfers are noted in this column. Please see next variable—transfer actor.

### ***Transfer Actor***

This column notes which actor received the territory during the transfer. For example, if the NRA of Uganda gains control of the central province after a series of battles, the corresponding province ID number is noted in the “territory transfer” column and the NRA actor number is noted in the “transfer actor” column. When the Ugandan government regains this territory, the “territory transfer” column will again note the province ID number but the “transfer actor” column will note the government of Uganda ID number.

### ***Notes***



Ancillary information is noted here. Examples include the overthrow of a political leader, a region experiencing a famine, a name change etc.

***Publication***

Notes on the source (name and number) of battle information are recorded here.

***Alliance Table***

This table records alliances between actors during the time of its existence. Alliances are assigned a number for the time of existence, if other groups join the alliance or if a group leaves, a new number is assigned.

***Alliance ID***

This is a unique ID number assigned to alliances when they first begin until the alliance ends. If a member joins or leaves, a new alliance number is created for to represent the changed alliances. This number is also recorded in the alliance variable in the actor-month table.

***Start Date***

This records the month and year in which the alliance is noted as being formed.

***End Date***

This records the month and year in which the alliance is noted as having ended, or a member has joined or left, thereby creating a new alliance.

***Members (A, B, C, D...)***

These variables record the members of the alliance identified in the “alliance ID” space. Members are noted by their actor ID (county and actor number).

***Province Table***

The provincial information is from a dbf file from administrations.shp in ESRI world information. The province information is needed to determine the extent of territorial control by either rebel or government forces.

The table contains the following information:

***Province ID***

An ID assigned by the ACLED project which is entered in the battle event variable “territory transfer” to note a territory now controlled by a rebel group instead of the default assumption of government control.

***Admin Name***

The name of the province, prefecture or county.

***Country name***

The name of the country in which the administration is situated.

SQKM and SQMI both record the kilometer and mile size (respectively) of the administration.

FIPS ADMIN and GMI ADMIN are both ids which will be used to join this information with shapefiles at a later date.