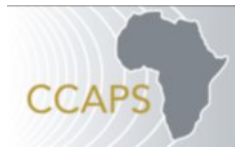


THE ROBERT S. STRAUSS CENTER™
FOR INTERNATIONAL SECURITY AND LAW



CLIMATE CHANGE
AND AFRICAN
POLITICAL STABILITY

Political Disorder in Africa: a New Dataset

Cullen Hendrix & Idean Salehyan
University of North Texas

May 7, 2009

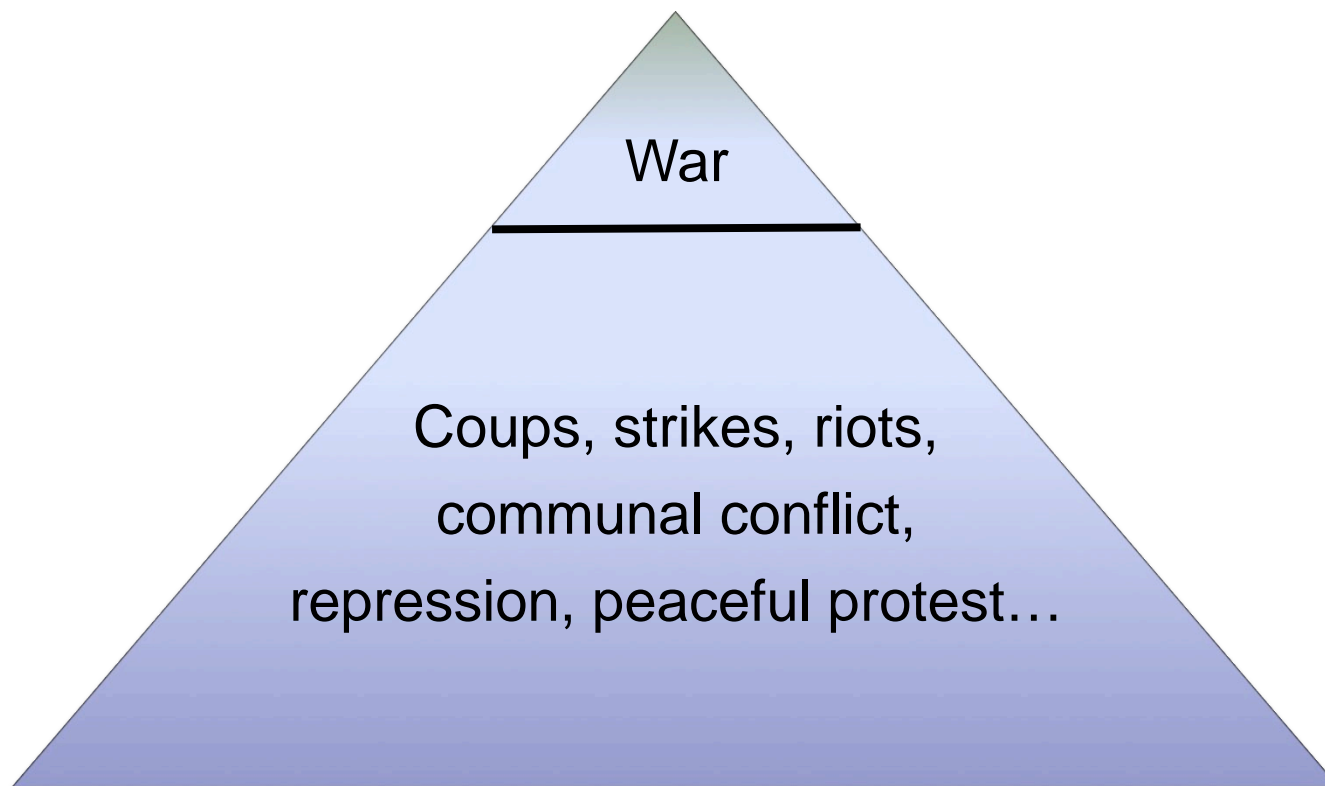


Data on political unrest and violence

- Many datasets on civil and international war.
- Defined as organized, armed conflict between states, or between states and rebel groups.
 - Correlates of War
 - Uppsala Armed Conflicts Dataset
 - Minorities at Risk
 - State Failure Task Force
 - Global Terrorism Dataset



Broader definitions of conflict



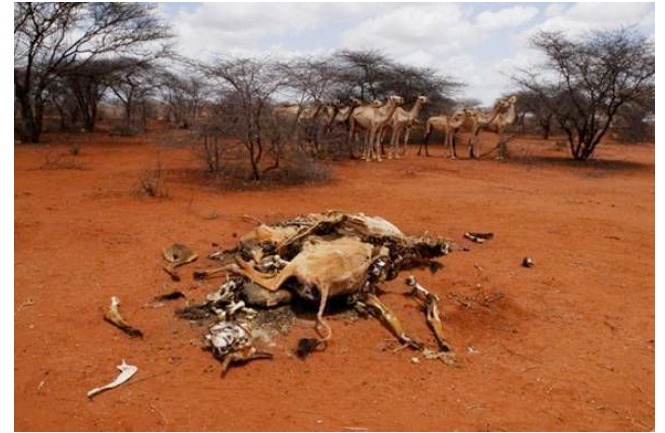
Potential disruption

- Marred 2007 Kenyan elections led to riots killing 800-1,500. Forced a political compromise.
- Over 17,000 politically-motivated deaths in Nigeria since 1990. Ethnic rioting, religious extremism, disruption of oil supplies.
- Early 1990s, protests against Zambian President Kaunda force regime change, multiparty elections.



Climate change and conflict

- Some scholars have posited that climate change & resource scarcity will lead to conflict.
- Weak and ambiguous findings with respect to civil and international war.
- However, other forms of unrest may be more likely.
 - Insurgency requires significant start-up costs.
 - The state may not be the most appropriate target.



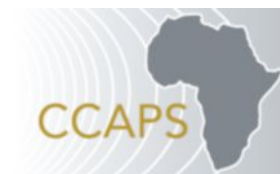
Political Disorder in Africa Dataset

- Data collection project at the University of North Texas.
- Covers the entire continent, 1990-2009.
- Still a work in progress!
- Thus far, we have over 6,200 events.



Political Disorder in Africa Dataset

- Keyword searches in Lexis-Nexis.
- Associated Press and Agence France Presse newswires.
 - Good coverage, but some issues to consider.
- Explicitly excludes civil war events as defined by the Uppsala University Armed Conflicts Database.



LexisNexis® Academic: Results - Windows Internet Explorer

http://www.lexisnexis.com/us/lnacademic/search/newssubmitForm.do

File Edit View Favorites Tools Help

LexisNexis® Academic: Results

LexisNexis® Academic

Start Page | Sign Out | Contact Us | Help

News - Agence France Presse - Eng... > Nigeria (560)

Search Sources

Hide

Result Groups

View Multiple Groups >

All Results (560)

Sources by Category

- Newswires & Press Releases (560)
 - Agence France Presse - English (242)
 - Associated Press Worldstream (163)
 - Associated Press Online (81)
 - The Associated Press (24 hour delay) (7)
- Publication Name
- Subject
- Industry
- Company
- Geography
- Language
- People

Help

Show List

Sort Publication Date

1-25 of 560

View Tagged

Search within results

Go

Next Steps Edit Search Go

Results

- Nigerian labour seeks apology over use of teargas to disperse demo
Agence France Presse -- English, 187 words
- Protesters burn down four churches in northern Nigeria
Agence France Presse -- English, 157 words
- Rights group: Nigerian soldiers commit killings, rapes in Delta
Associated Press Worldstream, December 22, 1999; Wednesday, Racing results and entries, 688 words, GLENN MCKENZIE
- Long queues for fuel in Nigerian capital
Agence France Presse -- English, 273 words
- Nigerian police use teargas to disperse demo in Abuja
Agence France Presse -- English, 605 words
- Lagos governor attacked in militants' 'civil war'
Agence France Presse -- English, 581 words, Peter Cunliffe-Jones
- Lagos governor escapes death in attack, four killed: reports
Agence France Presse -- English, 1429 words
- Two more Nigerian states take steps to adopt Sharia
Agence France Presse -- English, 647 words
- Govt plans to rebuild Lagos slum, dwellers protest
Agence France Presse -- English, 312 words
- 15 die, two villages razed in Nigerian communal clashes: report
Agence France Presse -- English, 203 words
- Nigerian lawmaker admonishes U.S. delegation on trade visit
Associated Press Worldstream, December 7, 1999; Tuesday, International news, 515 words, GILBERT DA COSTA
- Nigerian Senate enacts Niger Delta development law
Agence France Presse -- English, 215 words
- Shoot-at-sight order 'irreconcilable with democracy' in Nigeria
Agence France Presse -- English, 1181 words
- Death toll mounts in Lagos ethnic clashes
The Associated Press, December 1, 1999, Wednesday, BC cycle, International News, 246 words, By FRANK AIGBOGUN, Associated Press Writer

Death Toll Mounts in Lagos Clashes

Done

Start Sent Items - Microsof... LexisNexis® Acad... C:\Documents and S... EST_terrorism_June2... EST_terrorism_June5... Political disorder in Af... Political disorder in Af... 1:59 PM

Variables included

- Start and end dates.
- Type of event:
 1. Organized protest
 2. Unorganized protest
 3. Organized riot
 4. Unorganized riot
 5. Limited strike
 6. General strike
 7. Government repression
 8. Anti-government violence
 9. Extra-government violence
 10. Intra-government violence



Variables, cont.

- Escalation
- Actor(s) and Target(s) (text & binary for government)
- Number of participants (categorical)
- Number of deaths.
- Government repression (lethal & non-lethal)
- Location (text and code)
- Issue(s)
 - 14 issue codes, incl. elections, economy, environment, education, ethnicity, others
- Brief description of event



Examples

- Some 2,000 Muslim Brotherhood members protest outside a courthouse in Zagazig in support of a senior Brotherhood member on trial there (Egypt, 12-June-04)
- Lou Nuer raiders attack a small Dinka Bor settlement in the Twic East region of Jonglei state in order to steal cattle (Sudan, 28-August-09)
- Several hundred soldiers mutiny over back pay, seize control of parts of the capital (Central African Republic, 18-May-96 to 27-May-96)



Inter-coder reliability checks

- 10% of country-years double coded
- Two issues to consider
 - Do the coders identify the same events?
 - Do they code the same event identically?
- Same event:
 - No standard way of doing this
 - “Needle in haystack” problem
 - 65% match rate



Inter-coder reliability check

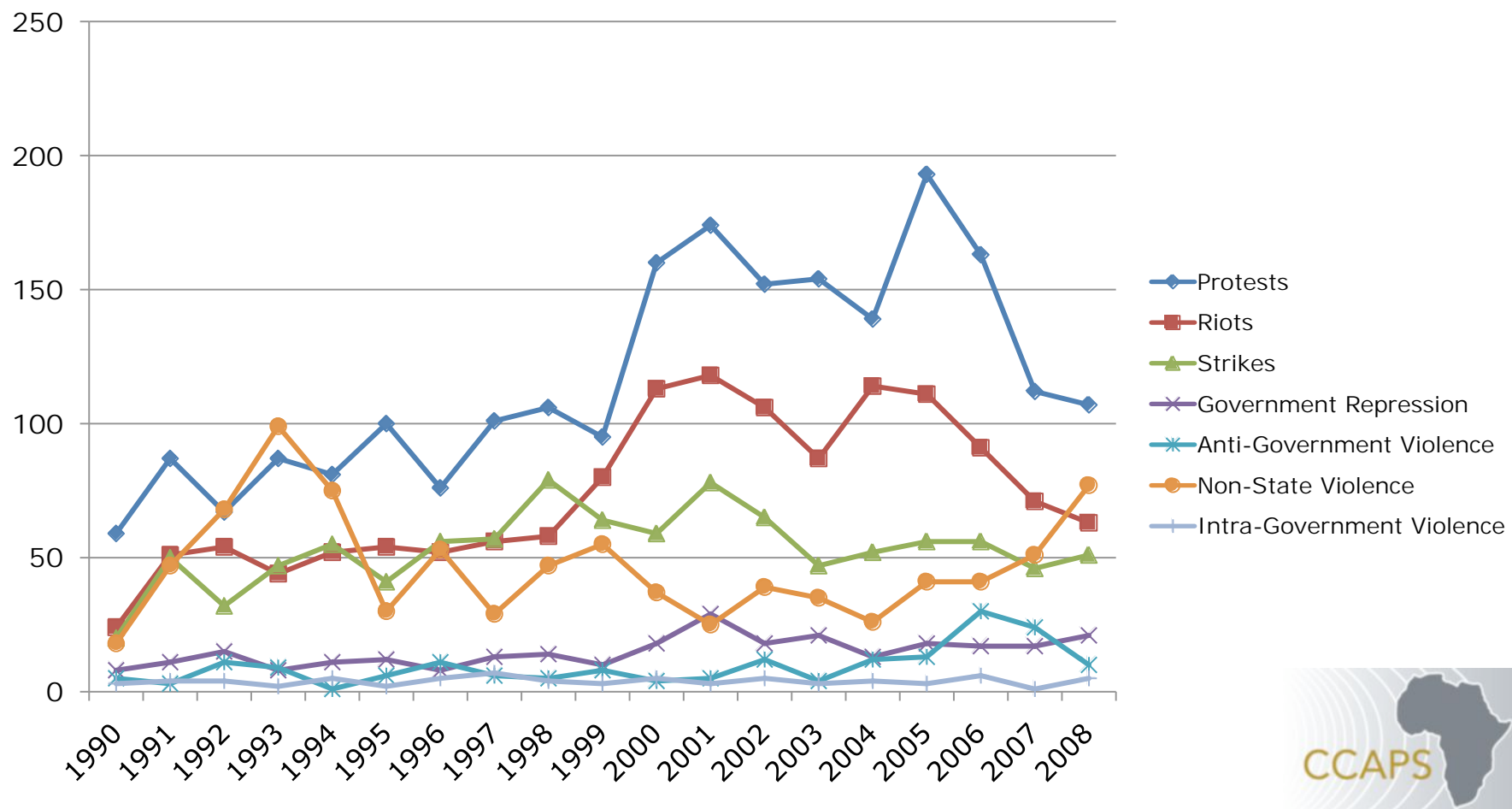
- Identical coding of same event
- Cohen's Kappa

$$\kappa = \frac{\Pr(a) - \Pr(e)}{1 - \Pr(e)},$$

- Kappas above .61 considered “substantial agreement”
- All variables have a good agreement rate
 - Somewhat weaker for issue code
 - We may combine some categories



Events over time

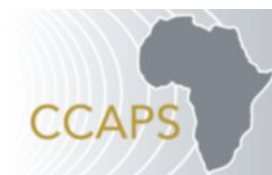


Events, deaths, and repression

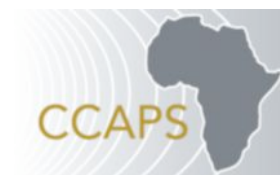
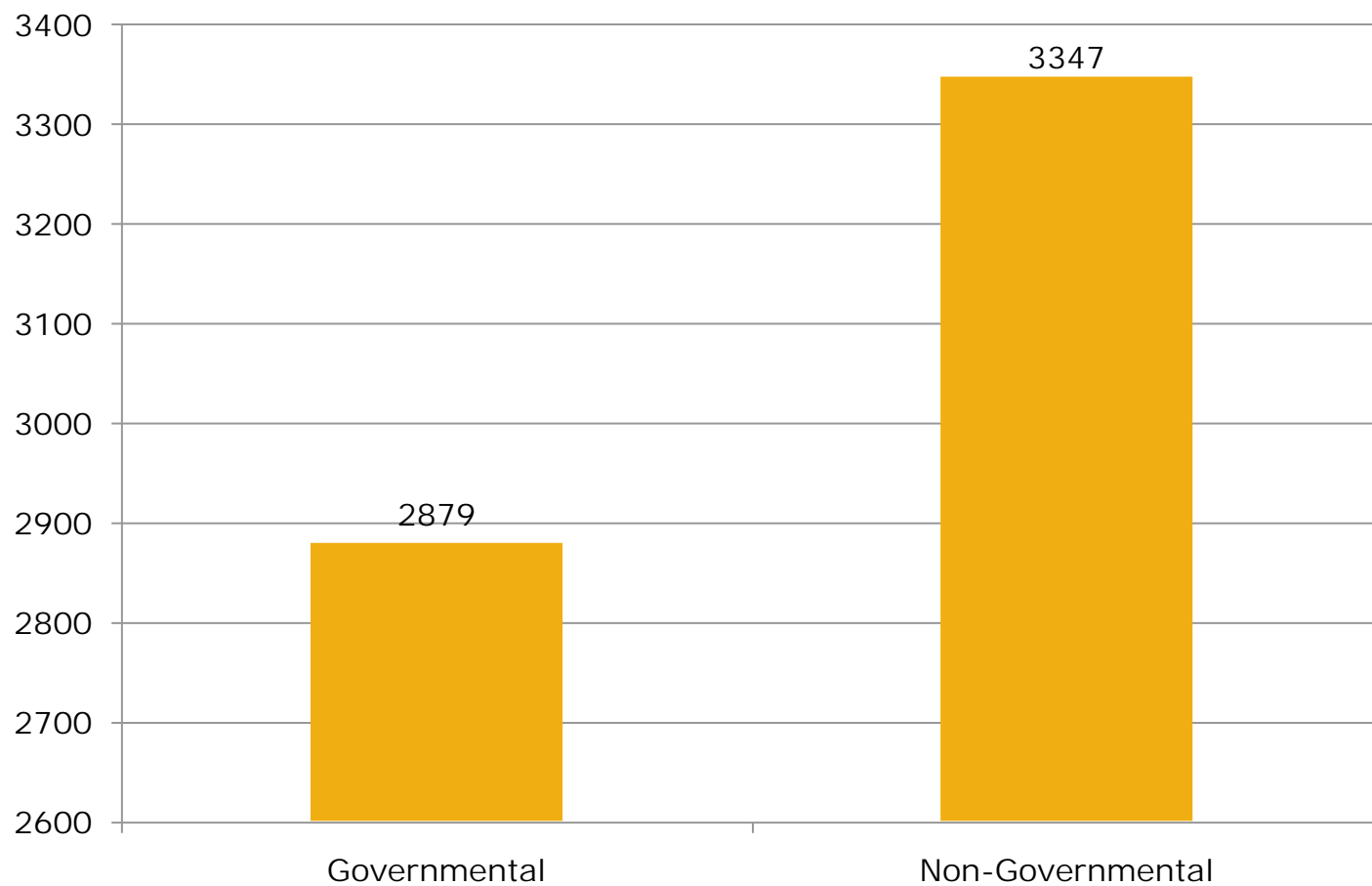
Country	Events
Nigeria	853
South Africa	801
Somalia	439
Zimbabwe	336
DRC	334
...	
Namibia	21
Botswana	14
Gambia	11
Eritrea	8
Mauritius	8
TOTAL	6,226

Country	Deaths
DRC	22,307
Nigeria	17,402
South Africa	7,246
Somalia	5,789
Kenya	4,688
...	
Namibia	13
Mauritius	11
Congo	11
Swaziland	10
Botswana	1
TOTAL	78,676

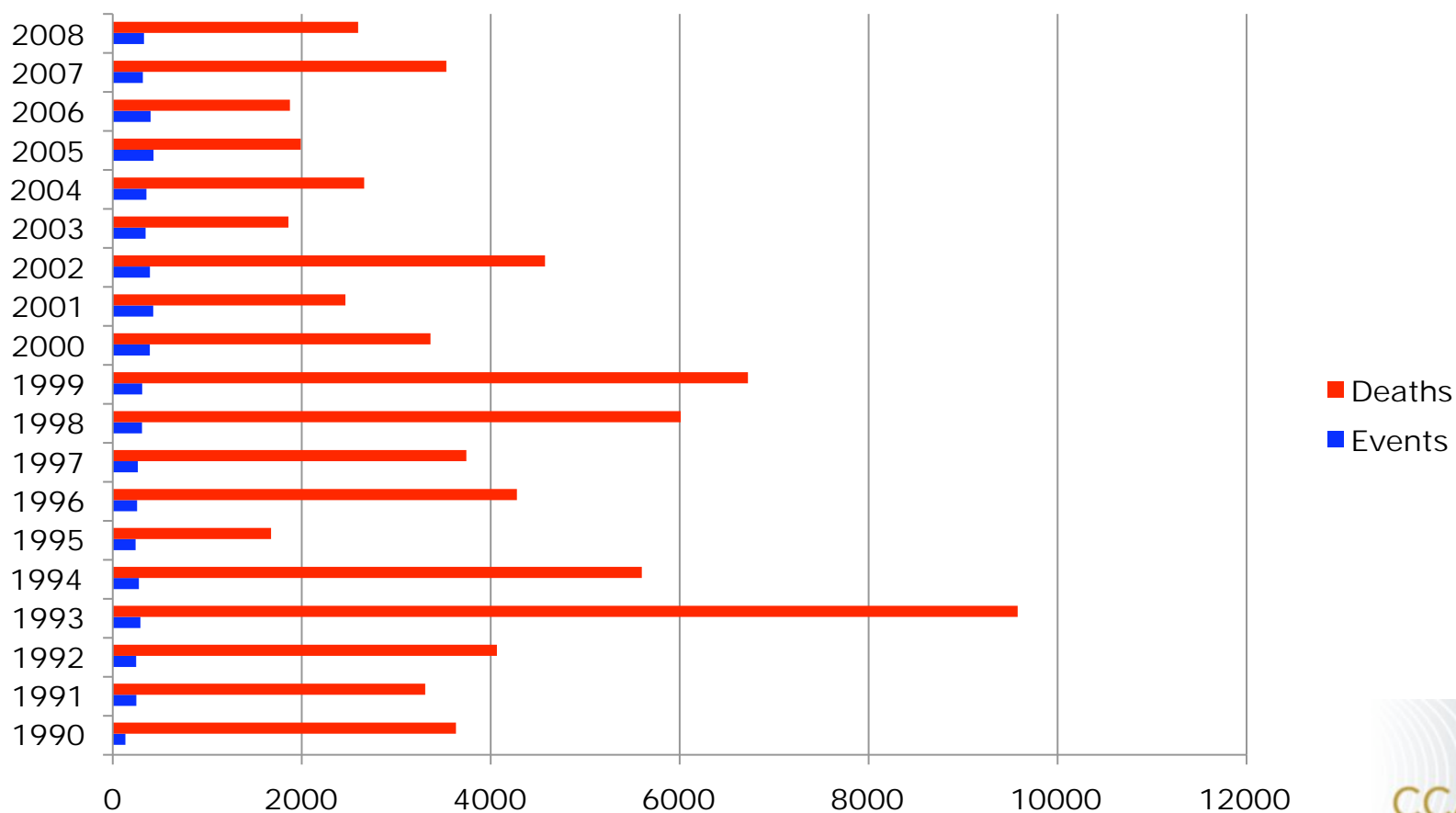
Country	%Repressed
Guinea	64%
Cameroon	53%
Egypt	47%
Mauritania	47%
Gambia	45%
...	
Botswana	14%
Rwanda	12%
South Africa	12%
Benin	9%
Somalia	1%
TOTAL	26%



Government v. non-government targets

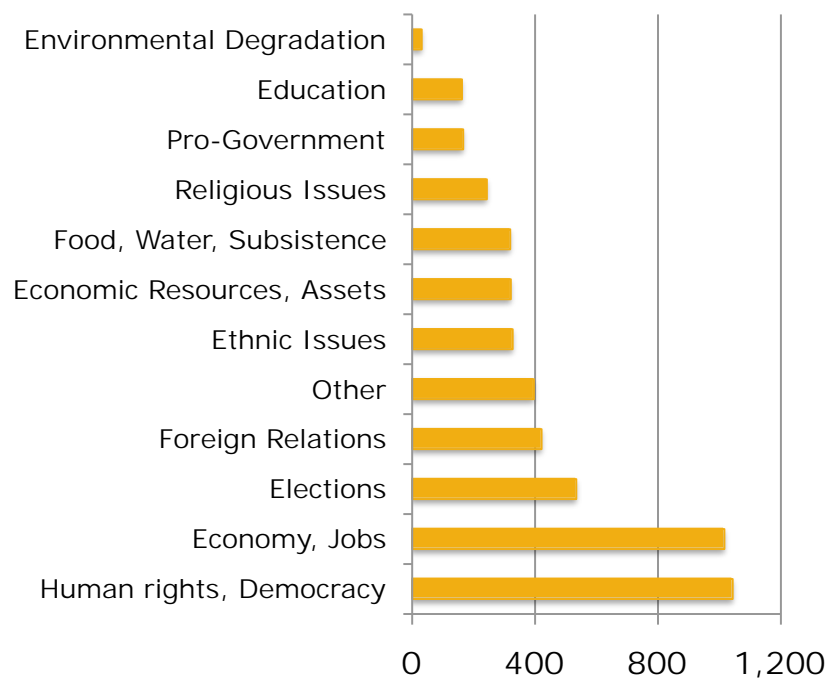


Events over time

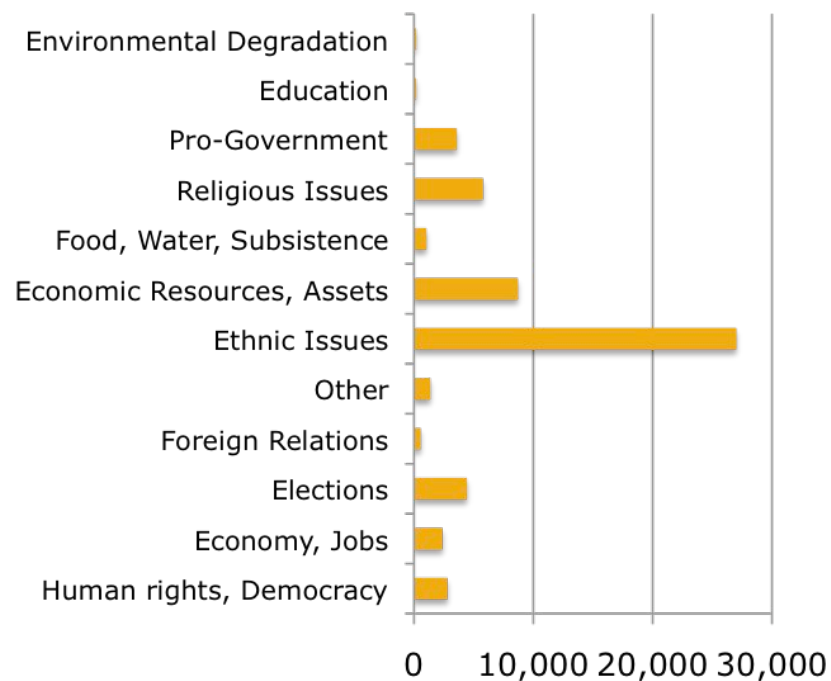


Issues and events: what's it all about?

Total Events by Main Issue



Deaths by Main Issue

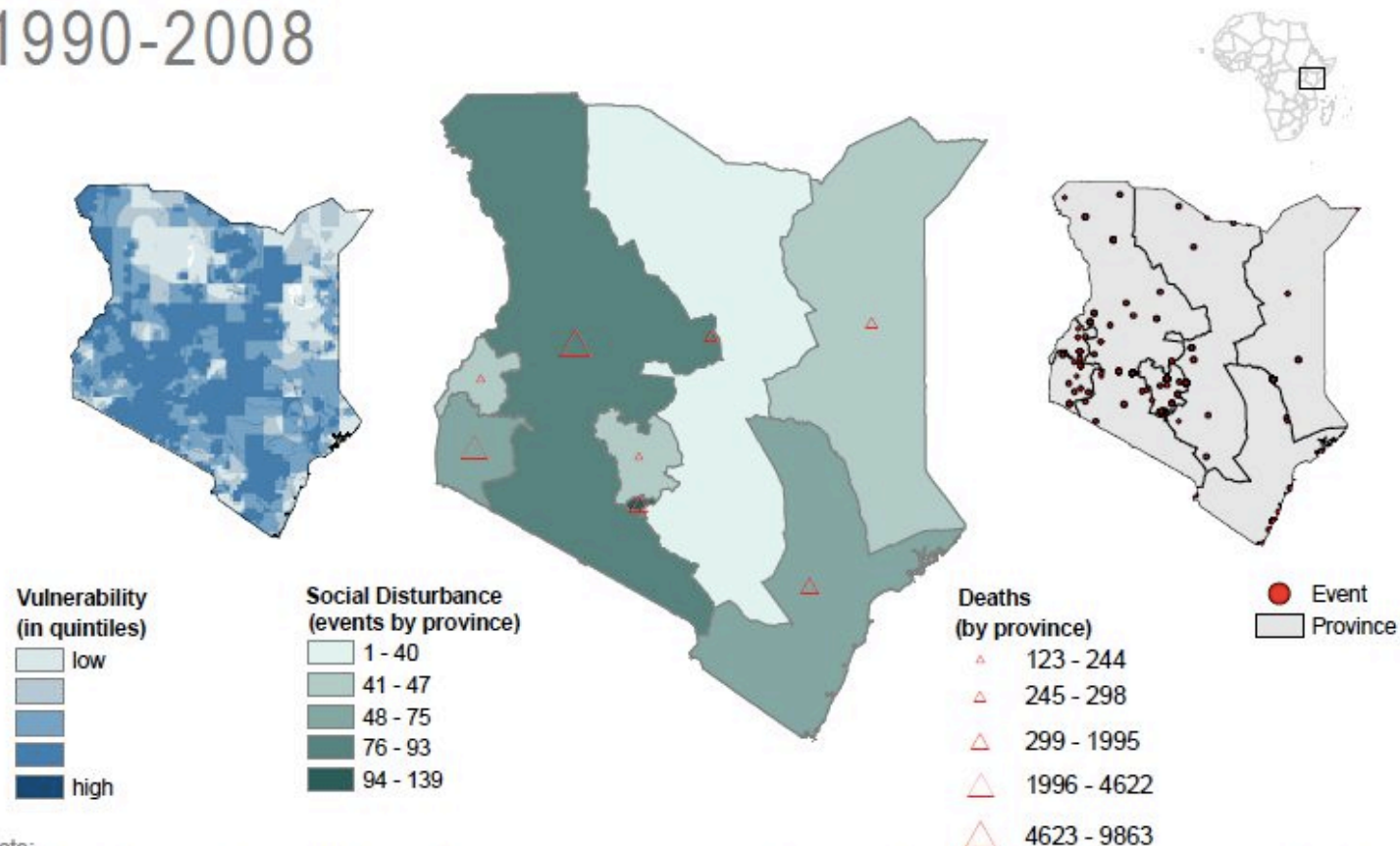


Repression by event type

Repression?	Organized Protest	Unorganized Protest	Organized Riot	Unorganized Riot	General Strike
No	501	983	83	733	111
Yes	263 (34.4%)	497 (33.6%)	60 (42.0%)	566 (43.6%)	38 (25.5%)
Repression?	Limited Strike	Pro-Government Violence	Anti-Government Violence	Extra-Government Violence	Intra-Government Violence
No	802	275	146	892	63
Yes	95 (10.6%)	10 (3.5%)	41 (21.9%)	54 (5.7%)	13 (17.1%)



Vulnerability and Political Disorder in Kenya 1990-2008



Note:

The vulnerability index was created using four main categories: natural disasters (cyclone winds and surges frequency; drought events; fires and floods), governance (World Bank indicators), atrocities (political violence) and access to primary roads and airports. The first three categories were assigned equal weight while access was simply subtracted from our final equation.

Author: Erika Grajeda Projected Coordinate System: GCS WGS 1984

Source: LBJ Africa Climate Data Server; The University of Texas at Austin, 2010.

0 250 500 1,000 1,500 Kilometers

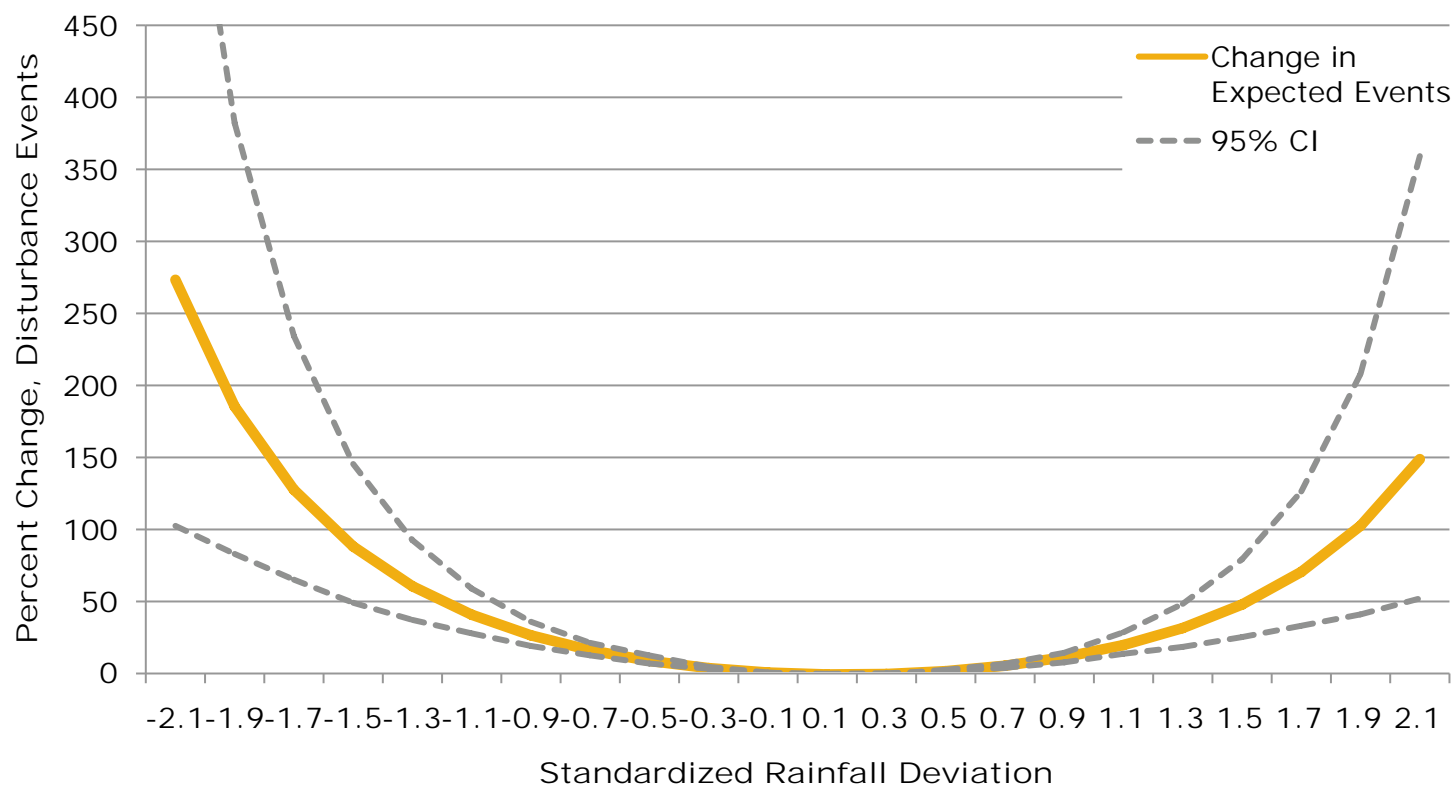


Application: political disturbances and weather events

- Exploring the climate and conflict nexus
 - A different way of thinking about/measuring conflict and instability
 - A different way of thinking about conflict triggers
 - Rainfall deviations from long-term means
 - Standardized to country-specific “normal” variability
 - Extreme events (floods and droughts)



Application: political disturbances and weather events



Application: political disturbances and weather events

	Total Events	Nonviolent Events	Violent Events	Government-Targeted Events	Non-Government-Targeted Events
Lagged DV	0.041***	0.052***	0.069***	0.040***	0.078***
	-0.008	-0.016	-0.018	-0.015	-0.019
Drought Events	0.055	0.122	-0.199	-0.072	0.187
	-0.118	-0.133	-0.072	-0.146	-0.151
Drought Events, lagged	0.301***	0.069	0.606***	0.101	0.510***
	-0.113	-0.133	-0.148	-0.143	-0.135
Flood Events	0.08	0.077	0.116	0.06	0.054
	-0.054	-0.064	-0.173	-0.069	-0.067
Flood Events, lagged	-0.071	-0.038	-0.022	-0.04	-0.076
	-0.059	-0.069	-0.072	-0.075	-0.069
Time Trend	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	518	518	518	518	518
Countries	32	32	32	32	32
Standard errors in parentheses					
* significant at 10%; ** significant at 5%; *** significant at 1%					



Use in qualitative research

- For qualitative social scientists, journalists, NGOs, etc.
 - Descriptive statistics
 - Event histories
- Ability to follow search parameters in Lexis-Nexis to find additional information



Event history: Jos massacre



London Times, March 8, 2010

“Officials estimate that 500 people were massacred in night-time raids by Muslim gangs near Jos, the city that bestrides Nigeria’s Christian-Muslim fault line.”

Event Type	Year	Deaths	Actor	Repression ?
Unorganized Riot	2001	500	Muslim militants	Yes
Unorganized Riot	2002	1	Civil Servants	No
Unorganized Riot	2004	4	Muslim militants	No
Unorganized Riot	2004	20	Christians	No
Unorganized Demonstration	2006	1	Citizens	Yes
Unorganized Riot	2008	700	Muslims	Yes



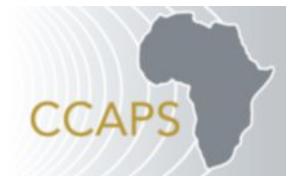
How to promote accessibility?

- How data are presented will make a big difference
 - HTML link to a .csv file = little impact
 - Searchable website with maps, etc. = big impact
 - Accessibility, ease of use are key



Not just for climate-related research

- When do states repress dissidents?
 - Reliance on broad measures of repression
 - Allows for analysis at the event level
- How do protests affect regime longevity?
- Which countries experience most non-state violence?
- How do election cycles affect violence?
- How does economic development influence protest?



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