# Al-Qaeda and Islamist Militant Influences on Tribal Dynamics: The Northern Mali andNortheastern Nigeria Regions

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**UNIVERSITY OF SOUTH FLORIDA**

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**Final Report**

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A key question in this project was to understand the factors and mechanisms that facilitate collaboration or antagonism; that is the sociological, religious, and cultural factors associated with close or oppositional ties between tribes, ethnic groups or sub-groups vis-a-vis Islamist militant groups? We focused on Nigeria in the struggle with Boko Haram, and the case of Mali vis--vis AQIM and other militant groups. The research shifted to concentrate on Nigeria (with the addition of its neighbors Cameroon, Niger and Chad), with the program officer's permission. The project generated more dataqualitative, quantitative, geospatialand more varied data on this data problem-set than any other group we are aware of; made key and extensive findings on factors driving support (or opposition) to Boko Haram on, inter alia demographic and geospatial levels; it generated very significant methodological and technical advances (including new tool in the High Definition Tribalism Index) which will shape future research on this problem set but also cognate areas (for example, understanding factors behind good governance and economic development); increased our 'situational awareness'; brought the level of analysis to a level of granularity previously lacking in this are (drawing on new equations); and generated an ability to understand areas that were under Boko Haram control.

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# FINAL REPORT


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## Al-Qaeda and Islamist Militant Influences on Tribal Dynamics: The Northern Mali andNortheastern Nigeria Regions

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*The report is <u>41 pages in length (excluding cover page)</u>;
please note the Appendix is numbered independently.*

The report that follows gives an overview of the project, listing of technical advances, outreach and media, sample of findings, pedagogy, publications and a detailed appendix of compiled and collected data sources; and of algorithms related to the Tribalism Index and the HDTI, which were developed by the P.I. for the project (and of important significance for future work.

**Introduction:**
Tribal areas, from Afghanistan through to the Sahel are core areas of Islamist militancy. Tribes have played a central role in either supporting or opposing militant entities in their midst. Evidence suggests militant Islamist groups have actively sought out tribal regions for their bases of activity. Prior quantitative research, by the P.I. and by others, has shown that tribalism is an important incubator of Islamist militancy, and the intersection of tribes and Islamist groups is a major factor in the export of religiously motivated violence. (This is a significant factor even into third generation of immigrant communities in Western countries.) Yet this is not a linear relationship, and not all tribes or ethnic groups collaborate with Islamist militants--or the nature of collaboration can be different, from ideological to pragmatic. Some will outright oppose these groups. Furthermore, different clans, or demographic segments (say the youth compared to tribal elders) can show different tendencies.

A key question in this project was to understand the factors and mechanisms that facilitate collaboration or antagonism; that is the sociological, religious, and cultural factors associated with close or oppositional ties between tribes, ethnic groups or sub-groups vis-a-vis Islamist militant groups? We focused on Nigeria in the struggle with Boko Haram, and the case of Mali vis-à-vis AQIM and other militant groups. The research shifted to concentrate on Nigeria (with the addition of its neighbors Cameroon, Niger and Chad), with the program officer's permission, as access to Mali became increasingly difficult and in many cases and areas impossible; furthermore, the growing importance of the Boko Haram case demanded intensive and systematic attention for policy and research reasons; and the sheer scale of data the project generated and collected for Nigeria generated very extensive work.

The project proved to be exceptionally productive and fruitful. The project generated more data—qualitative, quantitative, geospatial—and more varied data on this data problem-set than any other group we are aware of; it generated very significant methodological and technical advances which will shape future research on this problem set but also cognate areas (for example, understanding factors behind good governance and economic development); increased our "situational awareness"; brought the level of analysis to a level of granularity previously lacking in this are; and

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generated an ability to understand areas that were under Boko Haram control.

Our sense is we made progress, *ex post facto,* in terms of methodology development towards what DARPA recently called for, namely "improve[ing] our understanding of the properties of resilient and adaptive social systems, i.e., systems that are likely to promote cooperation and coordination over conflict... [and] advance[ing] capabilities that allow [for the]…testing and predicting outcomes for different theories and models of causal processes that involve multiple variables at different levels of analyses (e.g., in different parts of the world and among different groups of people), in order to get a deeper, more predictive understanding of first principles underlying the wide variation in emergence of, and transition to, different states of human social systems."

**Significant Technical Advances:**
The project drew on a collaborative and interdisciplinary integration of spatial, temporal and thematic issues, drawing on extensive array of quantitative and qualitative tools, and data; it successfully scaled to increasing granularity of data and analysis--which allowed for much more refined analysis, providing responses to issues well beyond the proposal's key questions. The project has also generated more data, and more varied kinds of data (quantitative, qualitative, geospatial, mapping etc) on this problem-set than hitherto available. However, it went beyond this in proving new tools and methodologies for future research as well. Significant technical advances included the following:

• Tribalism Index © --*Description, algorithms and maps in appendix*
• High Definition Tribalism Index (HDTI) © --*Description, algorithms and maps in appendix*
• Caliphate Tracker
• Discourse Database
• Geospatial and diachronic mapping and tracking of Boko Haram and of Nigerian and other forces conflict, with multiple layers of data (demographic, geographic, casualties etc.
• Nigeria and Boko Haram Tracker III, http://goo.gl/lUik8M; *Collaborative reporting and analysis of the conflict--used by scholars, media, and government agencies.* [Note there are two additional editions of the Tracker.]

<u>**Sample**</u> **of Significant Findings:**
• Tribal context: greater explanatory value than poverty for support of Islamist militants to violence
• Religiosity per se does not explain support for Islamists, through it can explain the "export" cross-nationally of alliances and violence. This was demonstrated on a global, macro level, and in greater specifity for the Nigerian case.
• However, religious schooling (compared to secular, state schooling) *does* matter in support of Boko Haram. Note—levels of religiosity are not tied, to a extensive degree, to past education experience (religious or secular). Religious school impact is on skills and adaptive capacity to changes in labor markets and economy.

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- Perception of corruption in government (including police, army) significant factor in support of Islamists
- Globalization key role--combined with Koranic school indigenous populace unable to take advantage of opportunities driven by globalizing economy (from cell phone entrepreneurs to ATMs)
- Resent role of minorities in being able to take advantage of economic opportunities (notably Christians)
- Perceptions of corruption move in tandem with support of Boko Haram. As the nation-state fails, Nigerians look to other entities for governance.
- Education (secular) promotes support for the government. With the availability of formal, state-sponsored education, Nigerians become more integrated into the nation-state and less likely to support Boko Haram.
- More tribally-centered regions (higher levels of tribalism in TI and HDTI scores), states and local government areas did, indeed, see an uptick in violence, support for non-state violence, and distrust of the national government and its institutions.
- Environmental degradation: Abandoning of irrigation projects, closure of dams, declining food production (including fishing), desertification significant factor-- while some 80 percent of population in border region survives on agriculture, most of whom have lost jobs; generating more crime, and an advantageous environment for Boko Haram.
- Lack of regional cooperation on security and poverty alleviation, added to weak cross-border security administration; bribery easy for groups like Boko Haram
- Ethnic tribal (Kanuri) networks used to circumvent weak security measures by Boko Haram; move arms, set up safe havens
- Historical caliphate point of reference for Boko Haram; reshaping historical narrative of the Kanuri in Islamist terms
- HDTI scores correlated with voting; level of voluntary associations; support for Boko Haram; level of violence (not just terrorism but vigilante and criminal violence)
- HDTI (High-Definition Tribalism Index) measures the degree to which non-state governance entities such as kinship allegiance work to draw support away from the nation-state.


**Pedagogy:**
- <u>Internships</u>: Under the auspices of this project, select undergraduate students partook in the research, and were involved in conceptualization of problems, quantitative and qualitative research, coding of data, assisted in the cartography and geospatial work and the writing of papers and reports. Some 10 interns were involved.
- <u>Postdoctoral researchers</u>: Zacharias Pieri, Laurence Aïda Ammour
- <u>Graduate Student Support</u>: Natalie Deckard, Atta Barkindo, Rafael Serrano
- Numerous other students--undergraduate, graduate and postdoctoral were engaged through workshops and talks, in the United States and abroad.
- We provided analysis and information through the web Boko Haram Tracker, as well as through publications.

**Data overview:**
As noted above, the project generated more data—qualitative, quantitative, geospatial—and more varied data on this data problem-set than any other group we are aware of; it generated very significant methodological and technical advances which will shape future research on this problem set but also cognate areas (for example, understanding factors behind good governance and economic development). Data included archival survey (n=10,400), statistical physical geography, demographical, historical, ethnic and many, many others. *See appendix below for detailed listing*.

**Publications:**
Natalie Deckard, Atta Barkindo, David Jacobson. 2015. "Religiosity and Rebellion in Nigeria: Considering Boko Haram within the Radical Tradition." *Studies in Conflict and Terrorism.*

David Jacobson. 2015. "Citizenship and Violence: The Past and Future of Civility." In Siegfried O. Wolf, Jivanta Schottli, Dominik Frommherz, Kai Furstenberg, Marian Gallenkamp, Lion Konig and Markus Pauli, Editors. Politics in South Asia Culture. Rationalist and Conceptual Flow. Springer.

David Jacobson, Atta Barkindo and Derek Harvey. 2014. "What Gives Boko Haram its Strength." CNN.com. May 11, 2014.

Rafael Serrano and Zacharias Pieri. 2014. "By the Numbers: The Nigerian State's Efforts to Counter Boko Haram" in Pérouse de Montclos. MarcAntoine (ed.). *Boko Haram: Islamism, Politics, Security, and the State in Nigeria*. Ibadan. Leyden. IFRANigeria. Leyden University Press. Waposo Series. No. 2.

Zacharias Piere and Rafael Serrano. 2014. "Insurgency Prolonger: Nigeria's Lack of Strategic Adaptation and the Rising Boko Haram Death Toll." West Africa Insight. May. Center for Democracy and Development. Abuja.

Zacharias Pieri. 2014. "Boko Haram Analysis: Forced Conversion Their Only Hope?" LapidoMedia: Centre for Religious Literacy in World Affairs, 16 May. http://goo.gl/1ZIC3W

Zacharias Pieri and Jacob Zenn. "Restoring the Caliphate in Nigeria: Boko Haram and the Question of Dan Fodio's Legacy." In Routledge Handbook of Terrorism and Counter-Terrorism.

Pieri, Zacharias and Atta Barkindo. Forthcoming 2016. "Muslims in Nigeria: Between Challenge and Opportunity", in Mason, Robert (ed.), *Muslim Minority - State Relations: Violence, Integration and Policy.* London and New York: Palgrave Macmillan.

Jacob Zenn and Zacharias Pieri. Forthcoming 2016. "In Pursuit of a Caliphate: Boko Haram, Islamic State and Jihad in West Africa" in Silk, Andrew

(ed.), *Routledge Handbook of Terrorism and Counter-Terrorism*, Oxford and New York: Routledge.

Atta Barkindo. 2014. *Boko Haram, Islamic Ideology, Kanuri Identity or Historic Narrative of the Kanem-Borno Empire?* 30 September. http://goo.gl/ghyMM1

Atta Barkindo Benjamin Gudaku and Caroline Wesley. 2013. *Our Bodies, Their Battle Ground: Boko Haram and Gender-Based Violence against Christian Women and Children in Northeastern Nigeria since 1999.* World Watch Monitor. November.

Atta Barkindo and Michelle Shepherd. 2014. *List Puts Names to Kidnapped Nigerian Schoolgirls.* Toronto Star. 5 May.

Atta Barkindo. 2014. The Evolving Nature of Boko Haram: Command Structure. Ideology, Strategy and Future Outlook. *IHS Risk Assessment.* August 15.

Atta Barkindo. 2014. Boko Haram Bombing in the Heart of Abuja: The Military on Red Alert. *HIS Risk Assessment.* 20 August.

Atta Barkindo. 2014. Boko Haram and the Veracity of Shekau's Death: The Military and Political Implications towards 2015 General Elections. *IHS Risk Assessment.* October 30.

Atta Barkindo, Jacob Zenn and Nicholas Heras. 2013. "Ideological Evaluation of Boko Haram in Nigeria." RUSI Journal

Atta Barkindo, *Foreign Intervention or Local Peacebuidling?* Insight on Conflict, July/August 2014. http://www.insightonconflict.org/author/attakindo

We are also working on a monograph for future publication.

**Outreach and Media:**
• Boko Haram Tracker
> The Boko Haram Tracker was a comprehensive, online presentation of findings and analysis which generated thousands of hits across the world, including from government agencies, universities and others.

• Conferences
> We held a number of conferences and workshops brought together scholars and US government representatives including from different DoD agencies, USAID and the State Department. We also individually and collectively presented at an extensive number of conferences—information available on request.

• Presentations to government agencies
> We made direct presentations to numerous government agencies primarily of

the US government but also of KPN's, namely the British (FCO and Mod), and French governments (MoD and their Ministry of Foreign Affairs). <u>SEE Appendix--Government Agencies</u>

• Prominent figures who accessed our research (Sample): Nigerian Vice-President Abubakar; LTG HR McMaster; US Ambassador to Nigeria; Dr. Michael Bell, Chancellor NDU; LTG McKenzie Marcent CDR.

• We gave extensive media interviews, and we were approached almost every week for the duration of the project. The media included (but not limited to): *CNN, New York Times, Daily Telegraph (London), PBS Newshour, L'Espresso (Italy), NPR, Washington Post, BBC, France 24, BBC Hausa service, ABC, Toronto Star, Gazeta Wyborcza (Poland), Sonntags Zeitung (Switzerland), Canadian Television, Tampa Bay Times,* and many others. Full listing available, with interview details, on request.

*Agencies briefed individually or in joint fora:*
• ·    Joint Staff J-7 (Joint Force Development / 8 (Force Structure, Resources & Assessment) / 9 (Inter-agency Partnering)
• ·    Army Capabilities Integration Center's (ACIC's) Strategic Landpower Taskforce
• ·    Center for Strategic and Budgetary Assessments
• ·    General Staff 3X - Operations, Resistance Theory
• ·    National Counter terrorism Center (NCTC)
• ·    Department of State Bureau of Political Military Affairs
• ·    U.S. Army Training and Doctrine Command (TRADOC)
• ·    Central Intelligence Agency (CIA)
• ·    Department of Defense (DoD)
• ·    Defense Advanced Research Projects Agency (DARPA)
• ·    Think Tanks
• ·    RAND Corporation
• ·    Joint Information Operations Warfare Center (JIOWC)
• ·    Headquarters, Department of the Army (HQDA)
• ·    95th Civil Affairs Brigade
• ·    1st Special Forces Command
• ·    75th Ranger Regiment
• ·    United States Agency for International Development (USAID)
• ·    National Security Agency (NSA)
• ·    Defense Threat Reduction Agency (DTRA)
• ·    National Security Council (NSC) The White House
• ·    Non-Government Organizations (NGOs)
• ·    Military Information Support Operations Command (MISOC)
• ·    U.S. Army John F. Kennedy Special Warfare Center and School (SWCS)
• ·    European Command (EUCOM)
• ·    U.S. Army Europe (USAREUR)
• ·    5th Special Forces Group

- ·      Joint Task Forces
- ·      United States Southern Command (SOUTHCOM)
- ·      United States Central Command (CENTCOM)
- ·      United States Army Forces Command (FORSCOM)
- ·      Special Operations Joint Task Force (SOJTF)
- ·      Service War Colleges
- ·      Naval Post Graduate School (NPS)
- ·      University of Maryland (UMD)
- ·      Georgetown University (GU)
- ·      North Carolina State University (NCSU)
- ·      United States Army Civil Affairs and Psychological Operations Command (CAPOC)
- ·      Canadian Special Operations Forces (CANSOF)
- ·      North Atlantic Treaty Organization Headquarters (NATO HQ)
- ·      Naval Surface Warfare Center (NSWC)
- ·      U.S. Marine Corps Forces Special Operations Command (MARSOC)
- ·      Special Operations Command Korea (SOCKOR)
- ·      Special Operations Command Europe (SOCEUR)
- ·      U.S. Special Operations Command (USSOCOM)
- ·      Joint Special Operations Command (JSOC)
- ·      Joint Special Operations University (JSOU)
- ·      Theater Special Operations Command (TSOCs)
- ·      Special Operations Command Central (SOCCENT)
- ·      Special Operations Command North (SOCNORTH)
- ·      Special Operations Command Pacific (SOCPAC)
- ·      Special Operations Command South (SOCSOUTH)
- ·      Air Force Special Operations Command (AFSOC)
- ·      Allies
- ·      Johns Hopkins
- ·      U.S. Army Commander's Initiative Group (CIG)


- Note: As part of the HAMO development team, GICSC at USF assisted the Joint Force to strengthen its ability to understand the elements affecting human decision-making and behavior.
- ·      Joint Staff
- ·      Military Services
- ·      Combatant Commands
- ·      International Partners
- ·      Non-Defense USG Departments and Agencies
- ·      Academic experts

- Other agencies requesting/sent products to:
- ·      U.S. National Geospatial-Intelligence Agency (NGA)
- ·      Australian Geospatial-Intelligence Organization (AGO)
- ·      U.S. Defense intelligence Agency (DIA)

- ·        United Kingdom Defense Geographic Centre (DGC)
- ·        United Kingdom Defense Intelligence Fusion Centre (DIFC)
- ·        Department of State, Bureau of Intelligence and Research (INR)
- ·        Marine Corps Intelligence Activity (MCIA)
- ·        U.S. Ambassadors to Nigeria
- ·        U.S. World Wide Human Geography Data Working Group
- ·         The Protected Internet Exchange (PIX) an NGA and OSDI funded USG government sharing platform connecting over 300+ organizations and thousands of users. This group builds wikis on vearious topics and have used our products extensively for Nigeria and Boko Haram.
- ·        Auburn University (an established partner)
- ·        Air University
- ·        The Center for the Study of Civil Military Operations at West Point
- ·        and other industry partners

In addition presentations were made at the British Foreign Office and MoD; and the French MoD and Ministry of Foreign Affairs in London and Paris respectively.

**Appendix of** Tribalism Index©, High Definition Tribalism Index©, Algorithms and Project Data Sources (excluding certain archival, mapping and discourse data) follows below.

# APPENDIX

Tribalism Index©, High Definition Tribalism Index©, Algorithms and Project Data Sources (excluding certain archival, mapping and discourse data)

# CONTENTS

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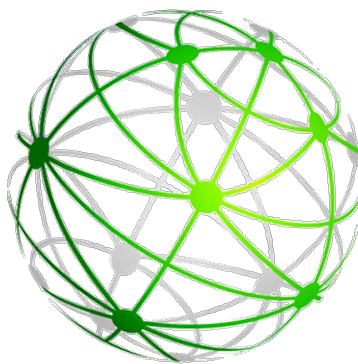
## TRIBALISM INDEX (NATIONAL LEVEL)

The Tribalism Index measures levels of tribalism at the national (state) level.

The Index allows citizens to compare tribalism scores across countries, based on five critical factors including gender inequalities, perceptions of corruption, grievance measures, ethnic and linguistic fractionalization and population demographics. Conceptually, the Tribalism Index can work on a sub-national level, measuring levels of tribal culture in regions, provinces, states or even cities and towns.
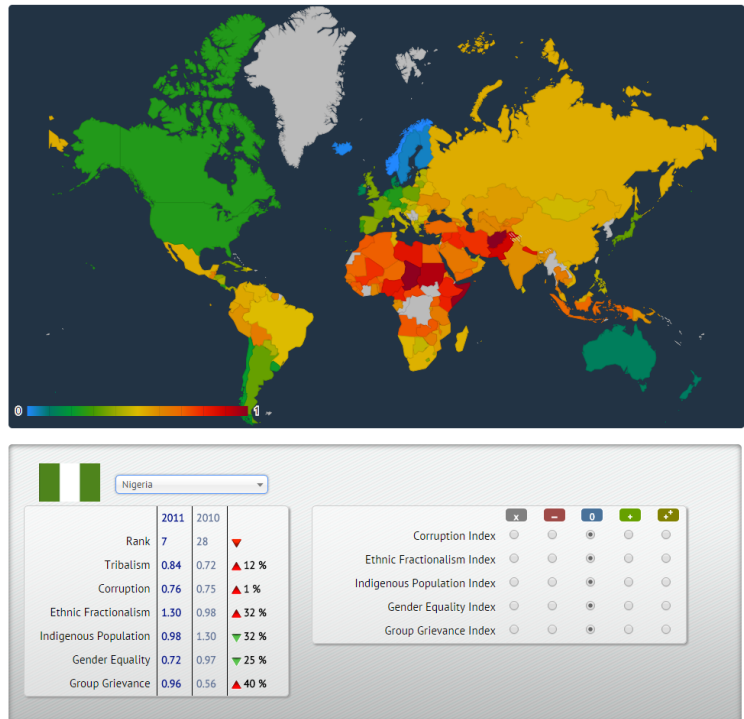


**Figure 1: Tribalism Index for Nation-State Comparisons**
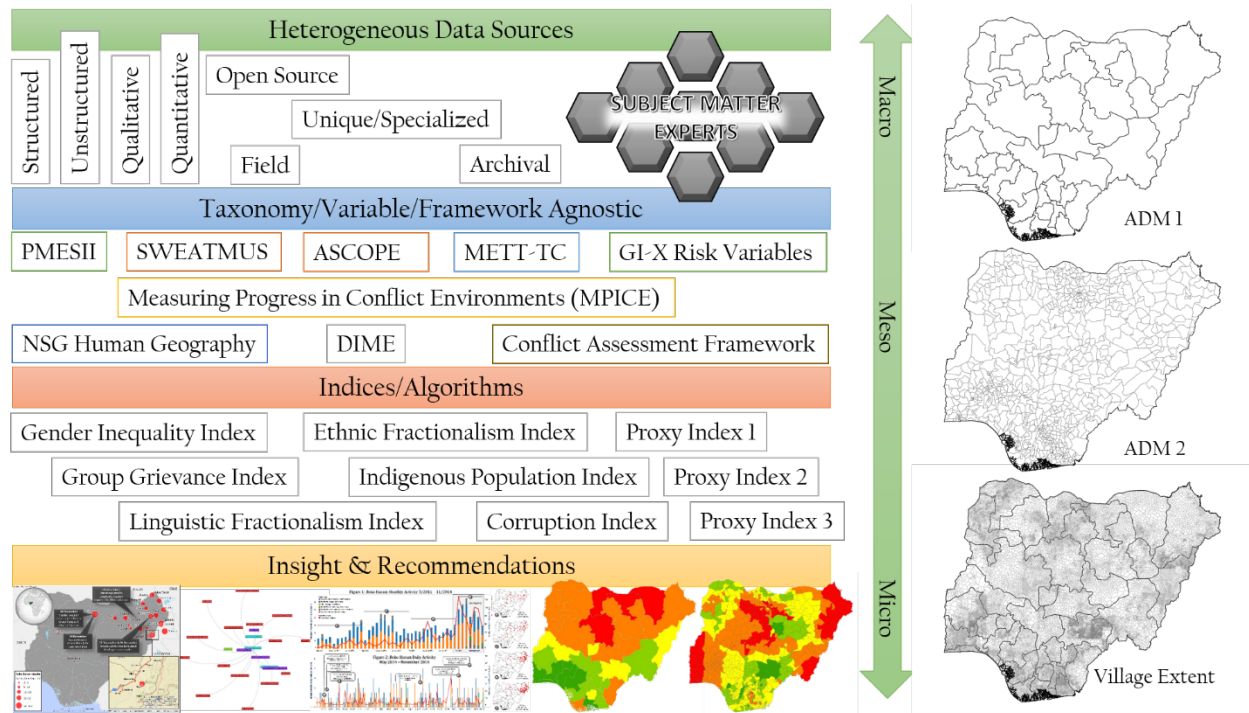
**Figure 2: GI-X platform concept applied to HD-TI**

## THEORETICAL FRAMEWORK
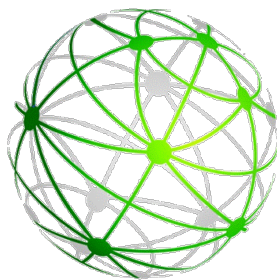
The Global Initiative on Civil Society and Conflict (GI-X) engages with the ways in which a disassociation between the widespread mores of a society and the expressed form of their political system may work to destabilize a region and increase violence at the regional level. Simply, the post-colonial world's borders are drawn and enforced at the global level through INGOs and IGOs (Meyer, Boli, Thomas, & Ramirez, 1997), and are largely out of the control of citizens – so the extent to which those borders are not meaningful to those contained within them should be predictive of the extent to which the existing state is perceived to lack legitimate authority over lives within those borders.

Through the maintenance of its monopoly on the legitimate use of violence, the nation-state is the most effective manner implemented for the reduction of violence in the lives of citizens (Pinker, 2011). Tribal societies, in the ways in which they lack a centralized system for violence reduction, can display a degree of seemingly unregulated personal and social violence that is alien

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to citizens of functioning democratic states (Boehm, 1984). But, conversely, the potential for violence to spiral in tribal societies is markedly low. While violence is present and apparent in daily life, the threat of violence is an organizing principle of order in tribal societies. Simply, this threat acts as a deterrence to violence – with feuds generally contained in both duration and the number of people affected. This group loyalty, rather than the rule of law, prevails in the tribal milieu and is carefully accounted for in the tribal hierarchy, with immediate family ranking over extended family, and extended family taking precedence over wide networks of kinship and finally tribe and ethnicity. At each level of loyalty, bonds must be defended against outsiders who threaten the kinship group. The tribal form is decentralized, in that there is no ultimate authority. It is democratic for men, in that every male has a say, and decision-making is collective. Although this manner of organizing violence in a society may be both strange to Western sensibilities and not as efficient as the formalized state in terms of lives saved or impulses thwarted, it can be maintained over generations.

Unsustainable, however, is the attempt to subjugate tribal sensibilities to a central state when that state lacks enough repressive capacity to approximate a colonial power or an autocracy. Democratic, republican state forms are dependent upon citizens' willingness to restrain themselves and allocate the use of violence to state authorities. In tribal contexts, this is extraordinarily difficult. GICSC posits that, in the absence of a strong coercive state – such as a colony or a dictatorship – tribal culture will overwhelm the unembedded democracy.

In this methodological paper, GICSC outline the compilation of a quantitative index that approximates the existence of non-state, tribally based, patriarchal power structures. Rather than do so on a national basis, which has already been done to a great degree of utility (Jacobson & Deckard, 2012), this paper discusses the compilation of such a measure on a sub-national level. Intuitively, a measure that speaks to processes that happen *despite* the existence of national borders is most valid when not created using figures compiled at the national level – but rather ones at a more granular level. In this paper, we present the first sub-national Tribalism Index, which reports at the provincial level. Although the processes described are applicable globally, GICSC uses Nigeria as the first case.

## CORRUPTION

In order to capture the existence of powerful tribal entities beneath the state apparatus further, GICSC sought to include the level of corruption present in a particular unit. A region in which the meritocracy of modern bureaucracies is subverted to nepotism and other types of favoritism may be considered endemically corrupt. Insofar as tribal allegiances supersede those to the central government, government corruption will be high as individuals within the government, whether politicians or civil servants, seek to enrich themselves, their families, kin networks, villages and tribesmen rather than the government agency for which they work. What constitutes corruption in an individual country depends not only on the laws of that nation, but on the enforcement of those laws, and on whether the tribe and kin network of the ruling party coincide (or not) with that of the majority of civil servants.

## FRACTIONALIZATION

As members of different tribal groups identify with different ethnicities and speak different languages or different dialects of the same language, nations with a more active tribal society will have higher levels of measured fractionalization than do more homogenous states. In a homogenous society, the state can be thought of as reflecting the dominant ethnicity or tribe, with tribal mores being reflected in the law and bureaucracy – and the identity of tribesman melded seamlessly into that of citizen – and this homogeneity encourages further assimilation and, in turn, greater homogeneity within the rubric of the governing state. In a heterogeneous, fractionalized, environment, however, these processes may move in the opposite direction.

## PATRIARCHY

The most important, and therefore the most heavily weighted, component of the Tribalism Index is a measure of gender inequality. Tribal societies are kinship based, and women are the promise of reproduction of family and culture, men are the bedrock of security. The honor of virginity and fidelity is matched, in theory, by the honor of the martial courage of men. This is not to suggest there was or is some kind of egalitarian complementarity or equality between men and women, as some have argued. The senior man has authority over everyone else in the family, and the women are subject to distinct forms of subjugation. Indeed, the women are a form of property of the men. Indeed, young boys may even have authority over their mothers and older sisters in their fathers' absence.

Because of this deeply entrenched patriarchy, women in tribal societies are systemically oppressed. In terms of health options, education, and familial relationships, data separated by gender will reflect women who suffer compared to women in less tribal settings, and in comparison to men. This relationship holds irrespective of overall wealth.

## GROUP GRIEVANCE

In the tribal society, the blood feud is the ultimate tool of accountability. With this tool, an act of violence or an offense by a single actor against honor of another individual can ripple into a feud between dozens, hundreds or even thousands of people. Blood feuds are often initiated, and they can endure for generations, resulting in the loss of property, injury or death. Because many group members are implicated in such feuds, the group can often pressure its members to act prudently and cautiously and to steer clear of entering into conflict if it can be avoided.

Despite the balance of power implied in the tribal model, these group grievances lead to societies that are more violent than those in which the state is more embedded. There is a burgeoning literature in the various types of violence, and the ways in which violence perpetrated by a state is systematically considered to not be violence. Whether or not this is the case, tribal societies should have higher levels of violent conflict by all actors.

## NIGERIAN DATA

GICSC accessed and utilized a number of datasets to compile the Tribalism Index, generating a value for each Nigerian state. GICSC outline data points from the sources below:

### CORRUPTION

The CLEEN Foundation is a non-governmental organization with offices in Lagos, Abuja, and Owerri. Funded by the Ford Foundation, the MacArthur Foundation, and the Open Society Initiative, among others, it produces an annual survey that explores the state of law enforcement and legal systems in Nigeria. GICSC used the results of this survey to develop a measure of actively present corruption at the state level by contrasting the rates of people who had paid bribes, or been extorted by a government agent, in the previous year.

### ETHNIC FRACTIONALIZATION

Using data from on the spatial representation of ethnic groups in national regions (Weidmann, Rød, & Cederman, 2010), GICSC computes ethnic fractionalization figures for each Nigerian state.

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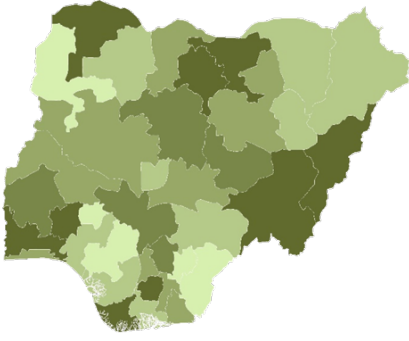
**Formula 1:** Ethnic Fractionalization Computation

$$F_a = 1 - \sum_{i=1}^{N} s_{ij}^2$$

Such that $s$ is the share of group $i$ in region $j$ at some given point in time.

## PATRIARCHY

GICSC used the Nigeria census data information to create a composite measure of gender equality. Adolescent birth rates, female-to-male literacy rates, infant mortality rates, and marriage equality – as operationalized by the rate of marriages in which the female partner is under 16 multiplied by the rate of marriages in which the male spouse is more than 7 years older than the female spouse – are aggregated and normalized to the national mean.

## VIOLENT CONFLICT

GICSC used death rates for violent conflict to approximate the level of group grievance in the region. Actions taken by government, anti-state organizations, tribes, sectarian agents, religious groups, and individuals are all included. Tallies are of fatalities, rather than incidents.

## THE INDEPENDENT VARIABLE: TRIBALISM INDEX

GICSC compiled the Aggregate Tribalism Index at the level of the individual Nigerian state using Formula 2. Factor loadings indicated all component variables load together.

**Formula 2:** The Aggregate Nigerian State-Level Tribalism Index

$$ATI_a = \widehat{C_a} + 0.5\left(\widehat{EF_a}\right) + 2\left(\widehat{P_a}\right) + \widehat{G_a}$$

Such that, in some region $a$:

The normalized corruption measure $(\widehat{C_a})$ of region $a$ :

$$\widehat{C_a} = \frac{C_a - \mu C_a}{\sigma C_a}$$

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The normalized ethnic fractionalization measure ($\widehat{EF_a}$) of region $a$ :

$$\widehat{EF_a} = \frac{EF_a - \mu EF_a}{\sigma EF_a}$$

The normalized patriarchy measure ($\widehat{P_a}$) of region $a$ :

$$\widehat{P_a} = \frac{P_a - \mu PA_a}{\sigma PA_a}$$
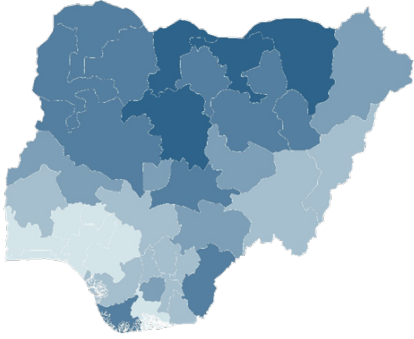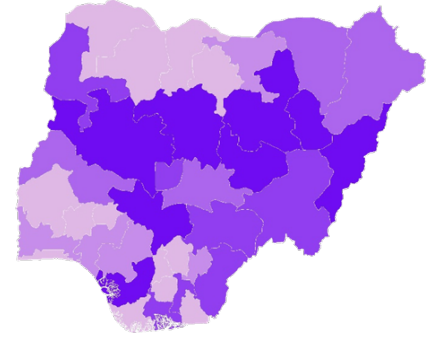
The normalized group grievance measure ($\widehat{G_a}$) of region $a$:

$$\widehat{G_a} = \frac{G_a - \mu G_a}{\sigma G_a}$$

In order to make figures easily understandable, GICSC then standardized them on a 1-point scale using Formula 3, creating the final figures.

**Formula 3:** The Nigerian State-Level Tribalism Index

$$TI_a = \frac{ATI_a - ATI_{min}}{ATI_{max} - ATI_{min}}$$
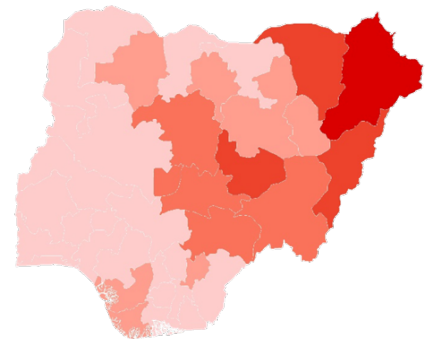
Such that $ATI_{min}$ is the lowest value of Aggregate Tribalism Index and $ATI_{max}$ is the highest value of Aggregate Tribalism Index in the nation.

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Resultant values are detailed in Table 1 and illustrated Figure 1. Tribalism in Nigeria appears to be greatest in the North of the country and least in the Southwest region, which contains Lagos, the largest and most globalized city. Notably, tribalism is not at its highest in Borno, the region which has been experiencing the greatest anti-government discord as late.

**Table 1:** Tribalism Index Values, by Nigerian State
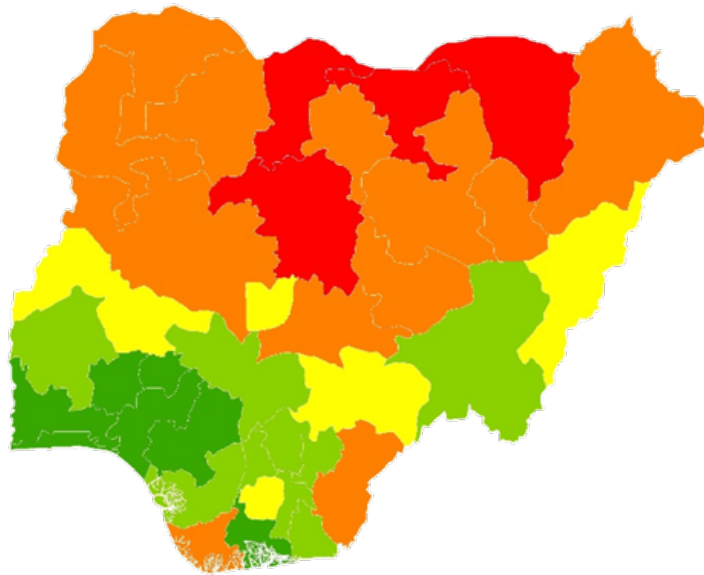


| State | TI | State | TI | State | TI |
|-------|-----|-------|-----|-------|-----|
| Abia | 0.3290 | Ekiti | 0.0000 | Nassarawa | 0.6008 |
| Adamawa | 0.4398 | Enugu | 0.2884 | Niger | 0.6591 |
| Akwa Ibom | 0.3099 | FCT | 0.4033 | Ogun | 0.0478 |
| Anambra | 0.2051 | Gombe | 0.5312 | Ondo | 0.1544 |
| Bauchi | 0.6025 | Imo | 0.3721 | Osun | 0.1766 |
| Bayelsa | 0.5953 | Jigawa | 0.8901 | Oyo | 0.2729 |
| Benue | 0.4906 | Kaduna | 0.8034 | Plateau | 0.5245 |
| Borno | 0.6224 | Kano | 0.6426 | Rivers | 0.1823 |
| Cross River | 0.5868 | Katsina | 0.7571 | Sokoto | 0.6260 |
| Delta | 0.2833 | Kebbi | 0.5308 | Taraba | 0.3120 |

| Ebonyi | 0.2258 | Kogi | 0.3212 | Yobe | 1.0000 |
|--------|--------|------|--------|------|--------|
| Edo | 0.1136 | Kwara | 0.3668 | Zamfara | 0.5357 |
| | | Lagos | 0.0753 | | |

## APPLICATION AT THE LEVEL OF PROVINCIAL STATE

Treating the Tribalism Index as a characteristic of the sub-national region – in the case of Nigeria, the state – allows for analysis of regional phenomena, taking the presence of tribal culture into account. GICSC engaged in a number of preliminary analyses to estimate the effect of tribalism on predicting various phenomena that the literature posits as important to physical security, the survival of civil society and the legitimacy of the state. In each case, both itself and in conjunction with relevant controls, the Tribalism measure proves indispensable in explaining variation in the dependent variable.

## POSITIVE SENTIMENT REGARDING BOKO HARAM

Tribalism accurately predicts the level of support that Boko Haram receives at the level of the Nigerian state. The two models – constrained, with only the TI as predictor and full – are outlined in Table 1. Controls are included per the existing literature on terrorism – unemployment, poverty, human rights violations on the part of the government, and corruption should increase positive sentiment, while the number of attacks and the police budget should decrease positive sentiment. In GICSC's model, considering tribalism renders each of these variables, except unemployment, irrelevant. Tribalism dwarf unemployment in size of effect.



**Table 1:** Proportion of Nigerian State with Positive Feelings regarding Boko Haram

| | Constrained Model | Full Model |
|---|---|---|
| **Tribalism Index** | 0.426* | 0.259* |
| **Unemployment** | | -0.008* |
| **Poverty** | | 0.001 |

| | | |
|---|---|---|
| **Number of Attacks** | 0.000 | |
| **Human Rights Violations** | 0.023 | |
| **Police Budget** | -0.001 | |
| **Corruption Measure** | -0.091 | |
| | | |
| **Variance Explained** | 27.8% | 50.3% |
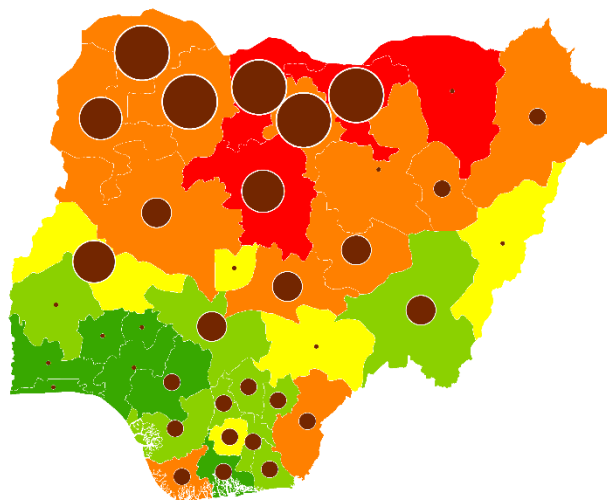
## CIVIC PARTICIPATION

Tribalism accurately predicts civic participation in the form of voting at the level of the Nigerian
state. The two models – constrained, with only
the TI as predictor and full – are outlined in
Table 2. Controls are included per the existing
literature on terrorism – education, age and
employment should increase voting, while
human rights violations should decrease voting.
In our model, considering tribalism renders each
of these variables irrelevant.

**Table 2:** Proportion of Nigerian State that Has

Voted in an Election



| | **Constrained Model** | **Full Model** |
|---|---|---|
| **Tribalism Index** | 0.431* | 0.393* |
| **Education** | | 0.087 |
| **Age** | | -0.33 |
| **Unemployment** | | 0.000 |
| **Human Rights Violations** | | -0.359 |
| | | |
| **Variance Explained** | 24.3% | 34.9% |
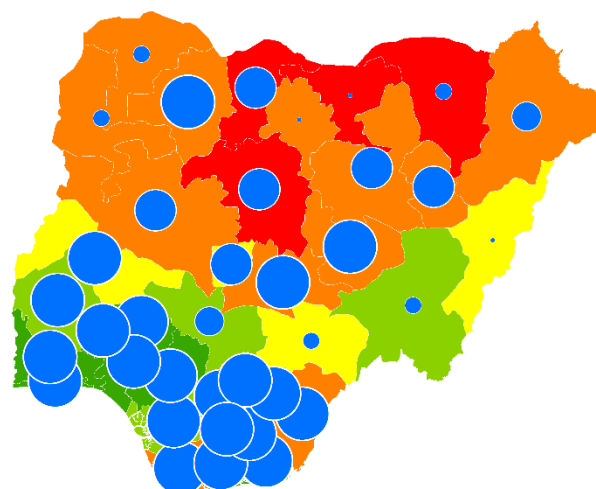
## CONCLUSION

The procedure for assessing tribalism on the sub-national level is static worldwide. By using the

same thought process that guided the creation of the nation-level Tribalism Index (Jacobson and

Deckard 2012), one can speak to gradations of tribalism within individual nation-states. The resultant measure has considerable efficacy in the prediction of civic participation and support for anti-state actors, among other phenomena. This work has tremendous promise as a line of future research.

## *Compiled Project Data*

    Lord Frederick Lugard archives, University of Oxford, UK
    British colonial reports on Northern Nigeria, Kew Gardens, UK
    Ronald Cohen Archives, University of Florida, USA
    Nigerian Archives, Ibadan, Nigeria
    Corruption data, CLEEN Foundation, Nigeria
    Qualitative research: Interviews with officials, religious leaders etc. Abuja Nigeria
    Web mining for attack data & caliphate data
    Secondary data: scholarly articles, monographs, reports etc.

    Political violence events

    Social Conflict Events

    Riot and Protest data

    Village & Settlement Locations

    Age Distribution

    Elevation and Topography

    Territorial Battles (State-State, State-Non-State)

    Caliphate Tracker for Boko Haram containing detailed information on location, condition, duration of control, language, religion, ethnicity, tribe, class, sex, education, community dynamics information as well as perceptions and grievances

    Non-State actor recruitment activities

    Refugee and Individual Displaced Persons (IDPs) Camps with detailed descriptions of conditions and assets

    Automated monitoring of the world's news media from nearly every corner of every country in print, broadcast, and web formats, in over 100 languages from January 1, 1979 through present day

    Criminal Activity

    Facilities & Points of Interest

        Churches

Mosques

Schools

Border Crossing Points

Roads

Buses

Taxis

Gas Stations

Police Stations

Courts

Government Buildings

Ungoverned areas

Hospitals

Airports

Buildings

Highways

Landuse

Land Cover

Markets

Banks

Ports

Rail

Corruption

Deaths/Fatalities per Ward

Population distribution

Agriculture - Desertification

Community Safety

Environmental

Governance

Health & Disease

Pollution

Household infrastructure

Housing

Natural Resources (minerals, etc)

Soils

Poverty and wealth

Socio-economics

Women & Children

Birth Rate

Literacy

Infant Mortality

Marriage Equality

Gender Equality

Nigerian Government Budgets and the geographic distribution of funds

Civil Participation & detailed Election Data

Ethnicity

Religion

Migration

Perceptions

Language

Climate Security Vulnerability

Education

Unemployment

Boko Haram & Ansaru Discourse Databases

Nigerian population Discourse and Perceptions

Boko Haram Organizational Leadership & Rank and File Social Network

Historic maps of boundary changes in Nigeria

Human Development

Living Standards

Projects in Nigeria (NGOs, USAID, etc)

Maritime Piracy

Social Media

- Mobility Models for West Africa
- Cultural Heritage
- Communications & Media Usage
- Economy
- Land Ownership and Tenure
- Significant Events
- Water & sewage
- Energy (electric, gas, etc)
- Political boundaries
- Informal group boundaries

These datasets are spatial and non-spatial with varying levels of scale and temporal attribution, but a majority of the data is sub-national geospatial data.
Overarching data types are listed – many data types have multiple sources which increases credibility

HDTI
 Gender Gap Data
  Childbearing
  Labor Market Outcomes
  Maternal Mortality
  Marriage Rates and Patterns
  Literacy
 Ethnic Fractionalization and Tribal Affiliation Demographics
 Linguistic Distribution
 Support for Violence
Non-State Violent Actor Support
Religious and Moral Beliefs
Political Affiliations
Anomie Prevalence
Extremism Indices
Western Oppression and Opinions of Western States
Police Budget Data

Global TI Data
 Democracy Indicators
 Political Institutions
 Corruption
 Gender Gap
  Female Economic Empowerment
  Education Disparities
  Literacy
  Mortality
  Labor Market Participation
 Ethnic Fractionalization
 Linguistic Data
 Group Grievance
 Gallup survey data of Nigeria (n=10,400)

 Focus group data

## ALLIANCE FOR INTEGRATED SPATIAL TECHNOLOGIES (AIST), UNIVERSITY OF SOUTH FLORIDA

A Research and Education Support Unit in the School of Geosciences, College of Arts and Sciences, at the University of South Florida. Their goal is to create interdisciplinary approaches to research and curriculum that involves 3D technologies and visualizations. They have particular research interest in preserving and protecting the world's cultural and natural heritage through education and global engagement.

## ARMED CONFLICT LOCATION & EVENT DATA (ACLED), CLIMATE CHANGE AND POLITICAL STABILITY (CCAPS)

ACLED (Armed Conflict Location & Event Data Project) is the most comprehensive public collection of political violence data for developing states. This dataset contains information on the specific dates and locations of political violence, the types of event, the groups involved, fatalities and changes in territorial control. Information is recorded on the battles, killings, riots, and recruitment activities of rebels, governments, militias, armed groups, protesters and civilians.

As of early 2015, ACLED has recorded over 100,000 individual events, with ongoing data collection focused on Africa. The data can be used for medium- and long-term analysis and mapping of political violence across developing countries through use of historical data from 1997, as well as informing humanitarian and development work in crisis and conflict-affected contexts through real-time data updates and reports. Despite the waning of civil wars across the developing world, ACLED data show that political violence rates have remained relatively stable in the past seventeen years. ACLED seeks to support research and work devoted to understanding, predicting and reducing levels of violence and their consequences.

Note: ACLED efforts are now expanding to South and South-East Asia in real-time.

## CLIMATE VULNERABILITY, CLIMATE CHANGE AND POLITICAL STABILITY (CCAPS)

### CCAPS CLIMATE SECURITY VULNERABILITY MODEL 3.0

The CCAPS Climate Security Vulnerability Model 3.0 combines data on physical, socio-economic, demographic, and political insecurities to develop a holistic model of vulnerability, using Geographic Information Systems to locate the confluence of these various sources of vulnerability.

### SUB-NATIONAL AFRICAN EDUCATION AND INFRASTRUCTURE ACCESS DATA

This dataset, compiled by CCAPS, provides data on literacy rates, primary and secondary school attendance rates, access to improved water and sanitation, household access to electricity, and household ownership of radio and television at the subnational level, specifically the first administrative district level. An earlier version of the dataset required users to perform the join in ArcGIS between published shape files and data files. This version includes shape files with the data already joined. For those administrative regions with missing data, this is indicated with a value of -99999. The user must exclude these values before visualizing or analyzing the data.

## COMMON CRAWL

Open repository of web crawl data containing 7 years of data in 40+ languages with billions of pages and trillions of links. The data consists of Raw data, Metadata, and Text Data. The data is Petabytes big. To give you an example ach month runs about 100-200 TB and between March - December 2014 the crawl archive has about 1.6 PB and 22.5 Billion web pages.
*Note: The files are too large for standard storage, so they are located in the aws-publicdatasets. See http://aws.amazon.com/datasets/41740 for example.*

## DATABASE OF GLOBAL ADMINISTRATIVE AREAS (GADM)

GADM is a spatial database of the location of the world's administrative areas (or adminstrative boundaries) for use in GIS and similar software. Administrative areas in this database are countries and lower level subdivisions such as provinces, departments, bibhag, bundeslander, daerah istimewa, fivondronana, krong, landsvæðun, opština, sous-préfectures, counties, and thana. GADM describes where these administrative areas are (the "spatial features"), and for each area it provides some attributes, such as the name and variant names.
The data are available as shapefile, ESRI geodatabase, RData, and Google Earth kmz format. Shapefiles can be used for most mapping and "GIS" software. You can download a free program such as Q-GIS or DIVA-GIS. The RData files can be used in R with the 'sp' package loaded.

## FACT BOOK, CENTRAL INTELLIGENCE AGENCY

The World Factbook provides information on the history, people, government, economy, geography, communications, transportation, military, and transnational issues for 267 world entities. Our Reference tab includes: maps of the major world regions, as well as Flags of the World, a Physical Map of the World, a Political Map of the World, a World Oceans map, and a Standard Time Zones of the World map.

## FOOD AND AGRICULTURAL ORGANIZATION (FAO) GEONETWORK, UNITED NATIONS

The FAO GeoNetwork provides Internet access to interactive maps, satellite imagery and related spatial databases maintained by FAO and its partners.
It's purpose is to improve access to and integrated use of spatial data and information. Through this website FAO facilitates multidisciplinary approaches to sustainable development and supports decision making in agriculture, forestry, fisheries and food security.
Maps, including those derived from satellite imagery, are effective communicational tools and play an important role in the work of various types of users:
Decision Makers: e.g. Sustainable development planners and humanitarian and emergency managers in need of quick, reliable and up to date user-friendly cartographic products as a basis for action and better plan and monitor their activities.
GIS Experts in need of exchanging consistent and updated geographical data.
Spatial Analysts in need of multidisciplinary data to perform preliminary geographical analysis and reliable forecasts to better set up appropriate interventions in vulnerable areas.
The FAO GeoNetwork allows to easily share spatial data among different FAO Units, other UN Agencies, NGO's and other institutions.
The FAO GeoNetwork site is powered by GeoNetwork opensource.

FAO and WFP, UNEP and more recently OCHA, have combined their research and mapping expertise to develop GeoNetwork opensource as a common strategy to effectively share their spatial databases including digital maps, satellite images and related statistics. The three agencies make extensive use of computer-based data visualization tools, known as Geographic Information System (GIS) and Remote Sensing (RS) software, mostly to create maps that combine various layers of information. GeoNetwork opensource provides them with the capacity to access a wide selection of maps and other spatial information stored in different databases around the world through a single entry point.

GeoNetwork opensource has been developed to connect spatial information communities and their data using a modern architecture, which is at the same time powerful and low cost, based on the principles of Free and Open Source Software (FOSS) and International and Open Standards for services and protocols (a.o. from ISO/TC211 and OGC).

## GEONAMES GEOGRAPHICAL DATABASE

The GeoNames geographical database is available for download free of charge under a creative commons attribution license. It contains over 10 million geographical names and consists of over 9 million unique features whereof 2.8 million populated places and 5.5 million alternate names. All features are categorized into one out of nine feature classes and further subcategorized into one out of 645 feature codes. The data is accessible free of charge through a number of webservices and a daily database export. GeoNames is already serving up to over 150 million web service requests per day.

GeoNames is integrating geographical data such as names of places in various languages, elevation, population and others from various sources. All lat/long coordinates are in WGS84 (World Geodetic System 1984). Users may manually edit, correct and add new names using a user friendly wiki interface.

GeoNames has Ambassadors in many countries who assist with their help and expertise.

## GEONET NAMES SERVER (GNS), NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

 The GEOnet Names Server (GNS) is the official repository of standard spellings of all foreign geographic names, sanctioned by the United States Board on Geographic Names (US BGN). The database also contains variant spellings (cross-references), which are useful for finding purposes, as well as non-Roman script spellings of many of these names. All the geographic features in the database contain information about location, administrative division, and quality. The database can be used for a variety of purposes, including establishing official spellings of foreign place names, cartography, GIS, GEOINT, and finding places.

## GLOBA DATABASE OF EVENTS, LANGUAGE AND TONE (GDELT)

A Global Database of Society: Supported by Google Ideas, the GDELT Project monitors the world's broadcast, print, and web news from nearly every corner of every country in over 100 languages and identifies the people, locations, organizations, counts, themes, sources, and events driving our global society every second of every day, creating a free open platform for computing on the entire world.

### GDELT EVENT DATABASE

The GDELT Event Database contains over a quarter-billion records organized into a set of tab-delimited files by date. Through March 31, 2013 records are stored in monthly and yearly files by the date the event took place. Beginning with April 1, 2013, files are created daily and records are stored by the date the event was found in the world's news media

rather than the date it occurred (97%+ of events are reported within 24 hours of happening, but a small number of events each day are past events being mentioned for the first time - if an event has been seen before it will not be included again). Files are ZIP compressed in tab delimited format, but named with a ".CSV" extension to address some software packages that will not accept .TXT or .TSV files.

Each morning, seven days a week, the latest daily update is posted by 6AM EST. This file is named with the previous day's date in the format "YYYYMMDD.export.CSV.zip" (ie the morning of May 24, 2013 a new file called "20130523.export.CSV.zip" is added). UNIX or Linux users can easily set up a cronjob or other automatic scheduling processes to automatically download the latest daily update each morning and process it for watchboarding, forecasting, early warning, alert services, and other applications.

## GDELT GLOBAL KNOWLEDGE GRAPH (GKG)

The GDELT Global Knowledge Graph begins April 1, 2013 and consists of two parallel data streams, one encoding the entire knowledge graph with all of its fields, and the other encoding only the subset of the graph that records "counts" of a set of predefined categories like number of protesters, number killed, or number displaced or sickened. Such counts may occur independently of the CAMEO events in the primary GDELT event stream, such as mentions of those killed in industrial accidents (which are not captured in CAMEO) or those displaced by a natural disaster or sickened by a disease epidemic. In this way, the GKG Counts File can be used to produce a daily "Death Tracker" to map all mentions of death across the world each day, or an "Affected Tracker" to indicate how many persons were sickened/displaced/stranded each day (at least as recorded in the global news media). These files are named as "YYYYMMDD.gkg.csv.zip" and posted by 6AM EST each morning seven days a week.

The second file is the full graph file, which contains the actual graph connecting all persons, organizations, locations, emotions, themes, counts, events, and sources together each day. It also contains a list of the EventIDs of each event found in the same article as the extracted information, allowing rich contextualization of events. These files are named as "YYYYMMDD.gkgcounts.csv.zip" and posted by 6AM EST each morning seven days a week. The Global Knowledge Graph is currently in "alpha" release and may change over time as we introduce new capabilities and expand its underlying algorithms.

*Note: GDELT Events total 290,632,217 records as of 1/19/2015 and growing by 40-60 MB daily*

## GLOBAL INITIATIVE ON CIVIL SOCIETY AND CONFLICT, UNIVERSITY OF SOUTH FLORIDA

The Global Initiative on Civil Society and Conflict is a unique multi-issue, multi-partner enterprise. Our goal is to re-imagine civil society and address issues of political instability in a globalizing world.

Note: See GI-X hard drive for files.

## GLOBAL TERRORISM DATABASE (GTD), UNIVERSITY OF MARYLAND

The Global Terrorism Database (GTD) is an open-source database including information on terrorist events around the world from 1970 through 2013 (with annual updates planned for the future). Unlike many other event databases, the GTD includes systematic data on domestic as well as international terrorist incidents that have occurred during this time period and now includes more than 125,000 cases.

## GOOGLE PLACES API

The Google Places API is a service that returns information about Places — defined within this API as establishments, geographic locations, or prominent points of interest — using HTTP requests. Place requests specify locations as latitude/longitude coordinates.
*Note: The Google Places API uses an API key to identify your application. API keys are managed through the Google APIs Console. You'll need your own server API key before you can begin using the API. All applications that use the Google Places API or Google Place Autocomplete must adhere to the requirements described in the Developer Policies and the Google Maps APIs Terms of Service. The Google Places API and Google Place Autocomplete share a usage quota as described in the Usage Limits and Billing documentation.*

## GULF2000PROJECT MAPS AND STATISTICS COLLECTIONS

This site was developed by the Gulf/2000 Project at the School of International and Public Affairs of Columbia University in New York City. It is designed to make available in a single location a wealth of information on the eight countries of the Persian Gulf region--Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.
All maps and their accompanying texts that are hosted by this Gulf/2000 web site are original, authored and produced by Dr. Michael Izady who retains exclusive copyright to them all. They are frequently upgraded by him as well as new ones being posted.
These maps may be used for personal use by noting the origin as Dr. Izady (as the author) and Gulf/2000 (as the host). For publication or any other public and commercial usage that requires licensing, please contact him at Izady@RiskReductionStrategies.org.

## INSTITUTE FOR DEMOCRACY AND ELECTORAL ASSISTANCE (IDEA)

 The International Institute for Democracy and Electoral Assistance (International IDEA) is an intergovernmental organization that supports sustainable democracy worldwide. International IDEA's mission is to support sustainable democratic change by providing comparative knowledge, and assisting in democratic reform, and influencing policies and politics.

## INTERNATIONAL CONFLICT RESEARCH

### GEOREFERENCING OF ETHNIC GROUPS

Whether qualitative or quantitative, contemporary civil-war studies have a tendency to over-aggregate empirical evidence. In order to open the black box of the state, it is necessary to pinpoint the location of key conflict parties. As a contribution to this task, this data project geo-references ethnic groups around the world. Relying on maps and data drawn from the classical Soviet Atlas Narodov Mira, the "Geo-referencing of ethnic groups" (GREG) dataset employs geographic information systems (GIS) to represent group territories as polygons. The GREG dataset consists of 8969 polygons and is provided in ESRI shapefile format.
When using the GREG data for your research, please cite: Weidmann, Nils B., Jan Ketil Rød and Lars-Erik Cederman (2010). "Representing Ethnic Groups in Space: A New Dataset". Journal of Peace Research, in press.

### GEOREFERENCING ETHNIC POWER RELATIONS

The GeoEPR 2014 dataset geo-codes all politically relevant ethnic groups from the EPR 2014 dataset. GeoEPR assignes every politically relevant group one of six settlement patterns and, if possible, provides polygons describing their location on a digital map. Descriptive (non-spatial) information on ethnic group's settlement patterns from the GeoEPR v. 2.0 dataset is available in research-ready country-year and group-year format from the GROWup Research Front-End data portal. Update to the 2014 edition will be made available in early 2015.

You may also download the latest version (2014, released on December 23, 2014) of the complete GeoEPR dataset directly:

Shapefile format (Zip archive): GeoEPR-2014.zip

CSV format with WKT geometries, UTF-8 charset: GeoEPR-2014.csv

Excel 2007 OOXML format with WKT geometries: GeoEPR-2014.xlsx

Codebook: GeoEPR-2014_Codebook.pdf

The GeoEPR polygons follow the WGS84 coordinate system (SRID 4326).

When using this dataset in your research, please include the following reference: Wucherpfennig, J., N. B.Weidmann, L. Girardin, L.-E. Cederman, and A. Wimmer (2011). Politically relevant ethnic groups across space and time: Introducing the GeoEPR dataset. Conflict Management and Peace Science, Forthcoming.

## LANDSCAN GLOBAL POPOULATION PROJECT, OAK RIDGE NATIONAL LABORATORY

Using an innovative approach with Geographic Information System and Remote Sensing, ORNL's LandScan™ is the community standard for global population distribution. At approximately 1 km resolution (30" X 30"), LandScan is the finest resolution global population distribution data available and represents an ambient population (average over 24 hours). The LandScan algorithm, an R&D 100 Award Winner, uses spatial data and imagery analysis technologies and a multi-variable dasymetric modeling approach to disaggregate census counts within an administrative boundary. Since no single population distribution model can account for the differences in spatial data availability, quality, scale, and accuracy as well as the differences in cultural settlement practices, LandScan population distribution models are tailored to match the data conditions and geographical nature of each individual country and region.

Note: LandScan datasets are UNCLASSIFIED//FOR OFFICIAL USE ONLY

## LANGUAGE MAPS, STEVE HUFFMAN, PHD.

Dr. Huffman has classified the languages of the Ethnologue into broader groupings following Merritt Ruhlen's A Guide to the World's Languages (published 1987, 1991 by Stanford University Press), and has produced as series of maps of language phyla and families using this classified data and several versions the World Language Mapping System and Seamless Digital Chart of the World geographic data sets. PDF versions of the maps available for download, as are Dr. Huffman's data table and ArcGIS project files.

## NIGERIA BUREAU OF STATISTICS DATA PORTAL

The main goal of the proposed NBS Online Data Analysis Portal is to allow for dissemination of statistical data with a wide range of functionalities.

The major components of this portal are the following:

### NBS DATA WAREHOUSE

The data warehouse is a query-intensive environment. At any time, different users of the NBS Data Warehouse might be executing multiple, big or small, queries to perform all types of data analyses. Part of the value of a data warehouse is to provide optimal data accessibility and manipulation.

## WEB BASED DATA PORTAL

NBS Data Portal is built on a web-based platform. It contains five components: Maps, Data Analysis, Reports, Dashboards and Resource Center. The modules are described below.

## MAPS MODULE

The module's purpose is to display geographical indicators on a map. When a user selects an indicator and additional selections in other dimensions (e.g. time, measure, flow etc.) map regions are colored according to available data values.

The indicators displayed on the map page are selected from the NBS data. When a user hovers over the map, the selected indicator values are reflected on the map. When a user selects a region/district on the map, the region's data are displayed accordingly on a chart and in a table.

The module includes the National map. The data used on this module are connected to the NBS Data warehouse. Whenever data is updated in the warehouse, the data displayed on the map module is simultaneously updated as well.

*Note: Thousands of datasets can be created from this data portal for use in GICSC's work especially on the High Definition Tribalism Index. To date GICSC has only generated the datasets necessary for the State/Provincial level HD-TI application.*

## NIGERIAN GEOLOGICAL SURVEY AGENCY (NGSA)

File alphabetically

## NIGERIA SECURITY TRACKER (NST), COUNCIL ON FOREIGN RELATIONS

The Nigeria Security Tracker (NST), a project of the Council on Foreign Relations' Africa program, documents and maps violence in Nigeria that is motivated by political, economic, or social grievances. Different groups in Nigeria resort to violence. The militant Islamist movement Boko Haram is active in northern Nigeria. Violence among ethnic groups, farmers, and herdsmen sometimes acquires religious overtones. A new generation of Niger Delta militants threatens war against the state. Government soldiers kill civilians indiscriminately. Police are notorious for extrajudicial murder.

The Nigeria Security Tracker (NST) tracks violence that is both causal and symptomatic of Nigeria's political instability and citizen alienation. The data are based on weekly surveys of Nigerian and international media.

The data start with May 29, 2011, the date of Goodluck Jonathan's inauguration as president. It was an event that highlighted the increasing bifurcation of the country on regional and religious lines. The NST is updated weekly.

Relying on press reports of violence presents methodological limitations. There is a dearth of accurate reporting across certain regions, death tolls are imprecise, and accounts of incidents vary. There is the potential for political manipulation of media. Given these limitations, the NST makes every effort to collect information from multiple sources. Nevertheless, NST statistics should be viewed as indicative rather than definitive.

*Note: The Nigeria Security Tracker is edited by Ralph Bunche Senior Fellow for Africa Studies John Campbell.*

## NIGERIA SOCIAL VIOLENCE PROJECT, JOHNS HOPKINS UNIVERSITY

The Nigeria Social Violence Project is a collaborative effort in the African Studies Program at Johns Hopkins SAIS to track and analyze social violence in Nigeria from 1998 to the present. *Note: This effort was only recently discovered and to date the data appears to be aggregated news media events lacking much detail. However, this dataset may lend further credibility to other more detailed projects using similar sources.*

## MINING CADASTRE OFFICE OF NIGERIA

File alphabetically

## OPENSTREETMAP

OpenStreetMap is built by a community of mappers that contribute and maintain data about roads, trails, cafés, railway stations, and much more, all over the world.
OpenStreetMap emphasizes local knowledge. Contributors use aerial imagery, GPS devices, and low-tech field maps to verify that OSM is accurate and up to date.
OpenStreetMap's community is diverse, passionate, and growing every day. Our contributors include enthusiast mappers, GIS professionals, engineers running the OSM servers, humanitarians mapping disaster-affected areas, and many more. To learn more about the community, see the user diaries, community blogs, and the OSM Foundation website.
OpenStreetMap is open data: you are free to use it for any purpose as long as you credit OpenStreetMap and its contributors. If you alter or build upon the data in certain ways, you may distribute the result only under the same licence. See the Copyright and License page for details.
Hosting is supported by the UCL VR Centre, Imperial College London and Bytemark Hosting, and other partners.

## SOCIAL CONFLICT ANALYSIS DATABASE (SCAD), CLIMATE CHANGE AND POLITICAL STABILITY (CCAPS)

The Social Conflict Analysis Database (SCAD) includes protests, riots, strikes, inter-communal conflict, government violence against civilians, and other forms of social conflict not systematically tracked in other conflict datasets. SCAD currently includes information on social conflicts from 1990-2013, covering all of Africa and now also Mexico, Central America, and the Caribbean.
Please cite data as: Salehyan, Idean, Cullen S. Hendrix, Jesse Hamner, Christina Case, Christopher Linebarger, Emily Stull, and Jennifer Williams. "Social conflict in Africa: A new database." International Interactions 38, no. 4 (2012): 503-511.

## SOCIOECONOMIC DATA AND APPLICATIONS CENTER (SEDAC), NASA

SEDAC, the Socioeconomic Data and Applications Center, is one of the Distributed Active Archive Centers (DAACs) in the Earth Observing System Data and Information System (EOSDIS) of the U.S. National Aeronautics and Space Administration. SEDAC focuses on human interactions in the environment. Its mission is to develop and operate applications that support the integration of socioeconomic and Earth science data and to serve as an "Information Gateway" between the Earth and social sciences.
This work, including access to the data and technical assistance, is provided by CIESIN, with funding from the National Aeronautics and Space Administration under Contract NNG13HQ04C for the Socioeconomic Data and Applications Distributed Active Archive Center (DAAC).

Satellite Derived Environmental Indicators/Global Annual Average PM2.5 Grids from MODIS and MISR Aerosol Optical Depth (AOD), v1 (2001-2010)

Natural Resource Management Index/Natural Resource Protection and Child Health Indicators, 2013 Release (2006-2013)

Land Cover and Land Use/Global Mangrove Forests Distribution, v1 (2000)

Low Elevation Coastal Zone/Urban-Rural Population and Land Area Estimates, v2 (1990, 2000, 2010, 2100)

Global Roads/Global Roads Open Access Data Set (gROADS), v1 (1980-2010)

Natural Resource Management Index (NRMI)/Natural Resource and Child Health Indicators, 2012 Release (2006-2012)

National Aggregates of Geospatial Data Collection (NAGDC)/Population, Landscape, And Climate Estimates (PLACE), v3 (1990, 2000, 2010)

Environmental Performance Index (EPI)/Environmental Performance Index and Pilot Trend Environmental Performance Index, 2012 Release (2000-2010)

Environmental Treaties and Resources Indicators (ENTRI)/Environmental Treaty Status Data Set, 2012 Release (1940-2012)

Global Rural-Urban Mapping Project (GRUMP), V1/Urban Extents Grid, v1 (1995)

Global Rural-Urban Mapping Project (GRUMP), V1/Settlement Points, v1 (1990, 1995, 2000)

Global Rural-Urban Mapping Project (GRUMP), v1/Population Density Grid, v1 (1990, 1995, 2000)

Global Rural-Urban Mapping Project (GRUMP), v1/Population Count Grid, v1 (1990, 1995, 2000)

Global Rural-Urban Mapping Project (GRUMP), v1/National Identifier Grid, v1 (1990, 1995, 2000)

Global Rural-Urban Mapping Project (GRUMP), v1/National Administrative Boundaries, v1 (1990)

Global Rural-Urban Mapping Project (GRUMP), v1/Land and Geographic Unit Area Grids, v1 (1990)

Global Rural-Urban Mapping Project (GRUMP), v1/Coastlines, v1 (2000)

Natural Resource Management Index (NRMI)/Natural Resource Management Index, 2010 Release (2004-2010)

Environmental Performance Index (EPI)/Environmental Performance Index, 2010 Release (1994-2009)

Global Roads/CODATA Catalog of Roads, v1 (1976-2008)

Climate Effects on Food Supply/Effects of Climate Change on Global Food Production from SRES Emissions and Socioeconomic Scenarios, v1 (1970-2080)

Environmental Performance Index (EPI)/Environmental Performance Index, 2008 Release (1994-2007)

National Aggregates of Geospatial Data Collection (NAGDC)/Population, Landscape, And Climate Estimates (PLACE), v2 (1990, 2000)

Compendium of Environmental Sustainability Indicators/Complete Collection, v1.01 (1973-2005)

Low Elevation Coastal Zone/Urban-Rural Population Estimates, v1 (1990, 1995, 2000)

Intergovernmental Panel on Climate Change (IPCC)/Synthetic Assessment of Global Distribution of Vulnerability to Climate Change, v1 (2005, 2050, 2100)

Environmental Performance Index (EPI)/Pilot Environmental Performance Index, 2006 Release (1994-2006)

Compendium of Environmental Sustainability Indicators/National Footprint Accounts, 2006 Release (2003)

Compendium of Environmental Sustainability Indicators/Ancillary Data, v1 (1990-2005)
Urban Landsat/Urban Landsat: Cities from Space, v1 (1999-2003)
Poverty Mapping/Poverty and Food Security Case Studies, v1 (1998-2002)
Poverty Mapping/Global Subnational Prevalence of Child Malnutrition, v1 (1990-2002)
Poverty Mapping/Global Subnational Infant Mortality Rates, v1 (2000)
Millennium Ecosystem Assessment (MA)/MA Scenarios, v1 (1995-2100)
Millennium Ecosystem Assessment (MA)/MA Population, v1 (1990-2002)
Gridded Population of the World (GPW), v3/Subnational Administrative Boundaries, v3 (1990, 1995, 2000)
Gridded Population of the World (GPW), v3/Population Density Grid, v3 (1990, 1995, 2000)
Gridded Population of the World (GPW), v3/Population Density Grid Future Estimates, v3 (2005, 2010, 2015)
Gridded Population of the World (GPW), v3/Population Count Grid, v3 (1990, 1995, 2000)
Gridded Population of the World (GPW), v3/Population Count Grid Future Estimates, v3 (2005, 2010, 2015)
Gridded Population of the World (GPW), v3/National Identifier Grid, v3 (1990, 1995, 2000, 2005, 2010, 2015)
Gridded Population of the World (GPW), v3/National Administrative Boundaries, v3 (2000)
Gridded Population of the World (GPW), v3/Land and Geographic Unit Area Grids, v3 (1990, 1995, 2000, 2005, 2010, 2015)
Gridded Population of the World (GPW), v3/Coastlines, v3 (2000)
Gridded Population of the World (GPW), v3/Centroids, v3 (1990, 1995, 2000, 2005, 2010, 2015)
Environmental Sustainability Index (ESI)/Environmental Sustainability Index, 2005 Release (1980-2000)
Socioeconomic Downscaled Projections/Global 15x15 Minute Grids of the Downscaled Population Based on the SRES B2 Scenario, v1 (1990, 2025)
Socioeconomic Downscaled Projections/Global 15x15 Minute Grids of the Downscaled GDP Based on the SRES B2 Scenario, v1 (1990, 2025)
Human Appropriation of Net Primary Productivity (HANPP)/HANPP as a Percentage of Net Primary Productivity, v1 (1995)
Human Appropriation of Net Primary Productivity (HANPP)/Global Patterns in Net Primary Productivity, v1 (1995)
Human Appropriation of Net Primary Productivity (HANPP)/Global Patterns of HANPP, v1 (1995)
Human Appropriation of Net Primary Productivity (HANPP)/HANPP by Country and Product, v1 (1995)
Last of the Wild, v2/Global Human Footprint (Geographic), v2 (1995-2004)
Last of the Wild, v2/Global Human Footprint (IGHP), v2 (1995-2004)
Last of the Wild, v2/Global Human Influence Index (Geographic), v2 (1995-2004)
Last of the Wild, v2/Global Human Influence Index (IGHP), v2 (1995-2004)
Compendium of Environmental Sustainability Indicators/Environmental Vulnerability Index (EVI), 2004 Release (1973-2003)
Socioeconomic Downscaled Projections/Country-Level Population and Downscaled Projections Based on the SRES B2 Scenario, v1 (1990, 2100)
Socioeconomic Downscaled Projections/Country-Level Population and Downscaled Projections Based on the SRES A1, B2, and A2 Scenarios, v1 (1990, 2100)
Socioeconomic Downscaled Projections/Country-Level GDP and Downscaled Projections Based on the SRES A1, A2, B1 and B2 Marker Scenarios, v1 (1990, 2100)

[National Aggregates of Geospatial Data Collection (NAGDC)/Population, Landscape, And Climate Estimates (PLACE), v1 (1995)](#)
[Environmental Sustainability Index (ESI)/Environmental Sustainability Index, 2002 Release (1980-2000)](#)
[Environmental Treaties and Resources Indicators (ENTRI)/Treaty Texts, v1 (1940-2000)](#)
[Compendium of Environmental Sustainability Indicators/Rio to Johannesburg Dashboard of Sustainable Indictors, v1 (1990-2000)](#)
[Environmental Sustainability Index (ESI)/Environmental Sustainability Index, 2001 Release (1980-2000)](#)
[Environmental Sustainability Index (ESI)/The Wellbeing of Nations, v1 (1990-2000)](#)
[Intergovernmental Panel on Climate Change (IPCC)/IS92 Emissions Scenarios (A, B, C, D, E, F), v1.01 (1990-2100)](#)
[Climate Effects on Food Supply/Potential Impacts of Climate Change on World Food Supply, v1 (1995-2110)](#)
[Intergovernmental Panel on Climate Change (IPCC)/Socio-Economic Baseline Data, v1 (1980, 1990, 1991, 1992, 1993, 1994, 1995, 2025)](#)

## SPATIAL DATA REPOSITORY, THE DEPARTMENT OF HOMELAND SECURITY

The Spatial Data Repository provides geographically-linked health and demographic data from The DHS Program and the U.S. Census Bureau for mapping in a geographic information system (GIS).

## THE WORLDPOP PROJECT (UK)

The WorldPop project was initiated in October 2013 to combine the AfriPop, AsiaPop and AmeriPop population mapping projects. It aims to provide an open access archive of spatial demographic datasets for Central and South America, Africa and Asia to support development and health applications. The methods used are designed with full open access and operational application in mind, using transparent, fully documented and shareable methods to produce easily updatable maps with accompanying metadata.
High resolution, contemporary data on human population distributions are a prerequisite for the accurate measurement of the impacts of population growth, for monitoring changes and for planning interventions. The WorldPop project aims to meet these needs through the provision of detailed and open access population distribution datasets built using transparent approaches.
[Births](#)
[Pregnancies](#)
[Poverty](#)
[Population](#)
[Age Structures](#)
Settlement Locations (no link, but located in the GI-X Hard Drive)
Mobility Data (no link, but located in the GI-X Hard Drive)
Spatial Data (no link, but located in the GI-X Hard Drive)

## UPPSALA UNIVERSITET DEPARTMENT OF PEACE AND CONFLICT RESEARCH

The Uppsala Conflict Data Program (UCDP) has recorded ongoing violent conflicts since the 1970s. The data provided is one of the most accurate and well-used data-sources on global armed conflicts and its definition of armed conflict is becoming a standard in how conflicts are systematically defined and studied.

[UPPSALA CONFLICT DATASET PROGRAM - GEOREFERENCED EVENT DATASET](#)

The UCDP GED is an event-based and georeferenced dataset on organized violence, detailing all of the UCDP's categories of violence (state-based conflict, non-state conflict and one-sided violence) in Africa between 1989 and 2010 at the level of the individual event of violence.

In contrast to the UCDP's country-year datasets, that are separated between different datasets depending on the type of violence they track, the UCDP GED contains data on all types of organized violence, disaggregated spatially and temporally down to the level of the individual incidents of fatal violence. Each event comes complete with date of the event, place of the event (with coordinates), actors participating in the event, and estimates of fatalities, as well as variables that denote the certainty with which these data are known.

This version of the dataset comes in a point format, georeferenced using the WGS84 datum and is compatible with most GIS software as well as in a polygon format, describing the shape and spread of conflict areas (in Google Earth KML and ESRI shapefile formats for use with ArcGIS). Further updates during 2012 will provide other derivative formats.

This first release of data contains all of those events that appear in years when a dyad or actor crosses the 25 fatalities threshold; future updates will contain events beyond these so-called 'active years', as well as data on actors and dyads that have never crossed this threshold. This version of the dataset contains approximately 24 000 individual events of violence.

This new dataset allows for the analysis of the causes, dynamics and resolution of organized violence at a level of analysis below the state system. The data can be conjoined with other sub-state data, such as disaggregated information on population, economy and the environment to allow for types of analyses and answer questions that country-level cannot address.

The UCDP has been working on coding and organizing these data for approximately 2.5 years, with a research group of approximately 15 project managers and research assistants. The data have been thoroughly checked and double-checked, both manually and through automated scripts, so as to ensure the integrity and usability of the product. We hope you like it.

[UPPSALA CONFLICT DATASET PROGRAM/PEACE RESEARCH INSTITUTE OSLO CONFLICT DATASET](#)

Content: a conflict-year dataset with information on armed conflict where at least one party is the government of a state in the time period 1946-2013. The most recent is version 4-2014a.

Latest presentation of data: Themnér, Lotta & Peter Wallensteen (2014) Armed Conflict, 1946-2013. Journal of Peace Research 51(4).

Original citation for the data: Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand (2002) Armed Conflict 1946-2001: A New Dataset. Journal of Peace Research 39(5).

Other recent presentations of the data: "Human Security Report 2013" (Human Security Report Project, Simon Fraser University).

[WEB DATA COMMONS PROJECT](#)

The Web Data Commons project extracts structured data from the Common Crawl, the largest web corpus available to the public, and provides the extracted data for public

download in order to support researchers and companies in exploiting the wealth of information that is available on the Web.

The World GeoDatasets site provides the highest quality geographic datasets for the GIS professional who needs international shapefile data to use within an ArcGIS-compatible software environment. We strive to ensure that these datasets are the most accurate, up-to-date and reliable data sets of their kind.

We work closely with the best available sources and key partners to ensure that we deliver the highest quality data. For instance, the World Language Mapping System results from a long-term partnership with SIL, the world's leading linguistic research organization and publisher of the Ethnologue, "an encyclopedic reference work cataloging all of the world's 6,909 known living languages."

World GeoDatasets are continuously maintained and updated. Each specific dataset has its own update release schedule; please contact us for information about planned release dates.

World GeoDatasets are published and copyrighted by Global Mapping International, a leading provider of international GIS data and services since 1983.

*Note: Please note the licensing restrictions titled "USF_WGDS_Custom License_2014-09-17.pdf" included in the folder. GICSC is still awaiting the v17 update.*

## WORLD LANGUAGE MAPPING SYSTEM

The World Language Mapping System (WLMS) is the most comprehensive, up-to-date, and trusted geographic dataset of the point and area (polygon) locations of the world's 6,900 language groups.

The WLMS is the result of over 20 years of collaborative work between GMI and SIL International (SIL), to map the languages described in SIL's 16th edition Ethnologue. The data is provided in ESRI shapefile (.shp) format for GIS systems with substantially all of the data from the 16th edition Ethnologue in a .DBF data table for use in further analysis.

Linguists, cultural geographers, and other researchers will find this data valuable in understanding the locations and distribution of languages throughout the world. Innovative uses have included ecology (studies of the relationship between human cultural diversity and biodiversity), political science (studies of relationship between armed conflict and linguistic boundaries), and military/counterterrorism (assignment of appropriate linguists/translators to operations in specific locations).

## HUFFMAN WLMS

Dr. Huffman has classified the languages of the Ethnologue into broader groupings following Merritt Ruhlen's A Guide to the World's Languages (published 1987, 1991 by Stanford University Press), and has produced as series of maps of language phyla and families using this classified data and several versions the World Language Mapping System and Seamless Digital Chart of the World geographic data sets. PDF versions of the maps available for download, as are Dr. Huffman's data table and ArcGIS project files.

## PEOPLES OF SOUTH ASIA

The Peoples of South Asia dataset includes both an extensive Microsoft Access database as well as GIS data for the peoples, languages, and religions of South Asia. Population figures

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are given for district populations for India, Pakistan, Nepal, Bangladesh, Sri Lanka, and Myanmar and figures are given at the province level for Afghanistan.

## SEAMLESS DIGITAL CHART OF THE WORLD

The Seamless Digital Chart of the World (SDCW) is a unique, updated basemap provided in an easy-to-use, seamless GIS format.  The SDCW is based on the best currently-available global vector base map, Digital Chart of the World (Vector Smart Map 0, Edition 5 from NGA).

 It comes with a variety of enhancements and updates which make it more easily usable, at a broader range of scales, and with better cartographic results than the freely available Digital Chart of the World from which it largely derives.

 This data product serves as a high-quality GIS basemap for cartographers and researchers.

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Jacobson, D., & Deckard, N. (2012). The Tribalism Index: Unlocking the Relationship Between Tribal Patriarchy and Islamist Militants. *New Global Studies , 6* (1).

Meyer, J., Boli, J., Thomas, G., & Ramirez, F. (1997). World Society and the Nation-State. *American Journal of Sociology , 103* (1), 144-181.

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Weidmann, N., Rød, J. K., & Cederman, L.-E. (2010). Representing Ethnic Groups in Space: A New Dataset. *Journal of Peace Research* .

## 1.

### 1. Report Type

Final Report

**Primary Contact E-mail**

**Contact email if there is a problem with the report.**

dshjacobson@gmail.com

**Primary Contact Phone Number**

**Contact phone number if there is a problem with the report**

8133917519

**Organization / Institution name**

University of South Florida

**Grant/Contract Title**

**The full title of the funded effort.**

Al-Qaeda and Islamist Militant Influences on Tribal Dynamics

**Grant/Contract Number**

**AFOSR assigned control number. It must begin with "FA9550" or "F49620" or "FA2386".**

FA9550-12-1-0096

**Principal Investigator Name**

**The full name of the principal investigator on the grant or contract.**

David Jacobson

**Program Manager**

**The AFOSR Program Manager currently assigned to the award**

Benjamin A. Knott

**Reporting Period Start Date**

09/14/2012

**Reporting Period End Date**

09/14/2015

**Abstract**

A key question in this project was to understand the factors and mechanisms that facilitate collaboration or antagonism; that is the sociological, religious, and cultural factors associated with close or oppositional ties between tribes, ethnic groups or sub-groups vis-a-vis Islamist militant groups? We focused on Nigeria in the struggle with Boko Haram, and the case of Mali vis-à-vis AQIM and other militant groups. The research shifted to concentrate on Nigeria (with the addition of its neighbors Cameroon, Niger and Chad), with the program officer's permission. The project generated more data—qualitative, quantitative, geospatial—and more varied data on this data problem-set than any other group we are aware of; made key and extensive findings on factors driving support (or opposition) to Boko Haram on, inter alia demographic and geospatial levels; it generated very significant methodological and technical advances (including new tool in the High Definition Tribalism Index) which will shape future research on this problem set but also cognate areas (for example, understanding factors behind good governance and economic development); increased our "situational awareness"; brought the level of analysis to a level of granularity previously lacking in this are (drawing on new equations); and generated an ability to understand areas that were under Boko Haram control.

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**Archival Publications (published) during reporting period:**

Natalie Deckard, Atta Barkindo, David Jacobson. 2015. "Religiosity and Rebellion in Nigeria: Considering Boko Haram within the Radical Tradition." Studies in Conflict and Terrorism.

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David Jacobson, Atta Barkindo and Derek Harvey. 2014. "What Gives Boko Haram its Strength." CNN.com. May 11, 2014.

Rafael Serrano and Zacharias Pieri. 2014. "By the Numbers: The Nigerian State's Efforts to Counter Boko Haram" in Pérouse de Montclos. MarcAntoine (ed.). Boko Haram: Islamism, Politics, Security, and the State in Nigeria. Ibadan. Leyden. IFRANigeria. Leyden University Press. Waposo Series. No. 2.

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Atta Barkindo. 2014. Boko Haram and the Veracity of Shekau's Death: The Military and Political Implications towards 2015 General Elections. IHS Risk Assessment. October 30.

Atta Barkindo, Jacob Zenn and Nicholas Heras. 2013. "Ideological Evaluation of Boko Haram in Nigeria." RUSI Journal

Atta Barkindo, Foreign Intervention or Local Peacebuidling? Insight on Conflict, July/August 2014. http://www.insightonconflict.org/author/attakindo

We are also working on a monograph for future publication.

**Changes in research objectives (if any):**

We focused on Nigeria in the struggle with Boko Haram, and the case of Mali vis-à-vis AQIM and other militant groups. The research shifted to concentrate on Nigeria (with the addition of its neighbors Cameroon, Niger and Chad), with the program officer's permission, as access to Mali became increasingly difficult and in many cases and areas impossible; furthermore, the growing importance of the Boko Haram case demanded intensive and systematic attention for policy and research reasons; and the sheer scale of data the project generated and collected for Nigeria generated very extensive work.

**Change in AFOSR Program Manager, if any:**

AFOSR Program Manager was Josephy Lyons; the present Program Manager, Benjamin Knott repleced him.

**Extensions granted or milestones slipped, if any:**

None.

**AFOSR LRIR Number**

**LRIR Title**

**Reporting Period**

**Laboratory Task Manager**

**Program Officer**

**Research Objectives**

**Technical Summary**

**Funding Summary by Cost Category (by FY, $K)**

|                      | Starting FY | FY+1 | FY+2 |
|----------------------|-------------|------|------|
| Salary               |             |      |      |
| Equipment/Facilities |             |      |      |
| Supplies             |             |      |      |
| Total                |             |      |      |

**Report Document**

**Report Document - Text Analysis**

**Report Document - Text Analysis**

**Appendix Documents**

## 2. Thank You

**E-mail user**

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