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FRAGILITY AND CLIMATE RISKS IN NIGERIA

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FRAGILITY AND CLIMATE RISKS IN NIGERIA

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Fragility and Conflict Technical and Research Services (FACTRS)

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ACRONYMS

| | |
|----------|--|
| ACLED | Armed Conflict Location and Event Data |
| CCAPS | Climate Change and African Political Stability |
| CEPSA | Complex Emergencies and Political Stability in Asia |
| CRED | Centre for Research on the Epidemiology of Disasters |
| EM-DAT | Emergency Events Database |
| FACTRS | Fragility and Conflict Technical and Research Services |
| FEWS NET | Famine Early Warning Systems Network |
| GDP | Gross Domestic Product |
| OCHA | United Nations Office for the Coordination of Humanitarian Affairs |
| OFDA | Office of U.S. Foreign Disaster Assistance |
| USAID | United States Agency for International Development |

EXECUTIVE SUMMARY

Nigeria faces among the highest compound fragility-climate risks globally. It suffers from ongoing fragility and conflict that severely limits the state's ability to respond to the country's considerable climate challenges. At the same time, environmental stress may be increasing the severity of land conflicts and food shortages in Nigeria. Given the gravity of the challenges facing Nigeria, understanding the complex relationship between fragility and climate risks is critical.

This brief first identifies the locations and populations across Nigeria that face the greatest climate exposure risks and outlines the specific climate risks they face. Second, it discusses current fragility dynamics, the capacity of the state to respond to public needs, and aspects of fragility that present the greatest risks to stability. Importantly, it understands fragility as being rooted in poor state capacity and poor state-society relationships, both of which can contribute to instability. Lastly, this brief describes how the state's compound fragility-climate risks heighten insecurity in Nigeria.

Nigeria has more than 41 million people—24 percent of its population—living in *high* climate exposure areas; 4.5 million of these people are in areas with not just high but *very high* climate exposure. The coastal states in Nigeria face extensive risks from storm surges along the entire coast, inland flooding and wildfires in the Niger Delta region, and negative rainfall anomalies in the southeast. The northern part of the country faces chronic aridity across the northern states and riverine flooding along the Sokoto River in the northwest and the Komadugu River system in the northeast. The Middle Belt experiences extensive negative rainfall anomalies and flooding along the Niger and Benue rivers.

Nigeria's fragility score has worsened considerably since 2000, with Nigeria experiencing the highest fragility of all countries in West Africa and among the highest in sub-Saharan Africa. The ability to address widespread, diverse climate risks, such as those facing Nigeria, depends greatly on state capacity and societal resilience. Yet Nigeria has high fragility in all four spheres of state-society interactions—political, security, economic, and social—struggling to deliver public services, prevent corruption, ensure political pluralism, and maintain security. While legitimacy and effectiveness deficits have both worsened in Nigeria, state legitimacy has deteriorated more precipitously. Nigeria's growing legitimacy deficits are predominantly in the security sphere, caused by increasing state violence, the presence of armed groups, and a growing number of communal militias—all signaling a lack of state control and the assumption of security duties by non-state actors. The country's largest effectiveness deficits lie in the social sphere, with poor social service provision across a range of sectors.

Nigeria is embroiled in multiple long-term conflicts that both reflect and contribute to deep weaknesses in state capacity. The state's inability to prevent the violence suggests that at least some national institutions may be weakened to the point of being presently unable to address key political, economic, and social issues that lead to violence. Nigeria is now one of Africa's most violent states, with the highest fatality rates per event compared to other active cases across the continent. Three specific dynamics—conflict and famine risk in the North, rising violence between herders and farmers in the Middle Belt, and simmering tensions over management of natural resources in the Niger Delta—provide key examples of the challenges to stability posed by the compounding fragility and climate risks in the country.

Environmental stress—coupled with government mismanagement of environmental and other stressors—contributes to the instability the country now faces. Nigeria's current crisis in the North, for example, reflects internationally declared emergency conditions and famine risks that are not caused by climate factors alone but also by longstanding environmental stress coupled with poor national management of the security, economic, and social conditions in that region. While the North endures chronic aridity and high overall climate exposure, its overall exposure levels are not the highest in the country, and this famine risk appears to be primarily driven instead by political violence disrupting harvests and aid supplies rather than by

climate factors alone. Likewise, the escalating security situation in the Middle Belt involves a highly climate-exposed region where the state has provided only limited response to growing food insecurity and ongoing tensions between Fulani herders and non-Fulani farmers over the use of land and water resources. Given the state's limited response to similar communal conflict in the past, it has not demonstrated the capacity to manage the increased communal conflict or the type of humanitarian crisis that could emerge from increased food and water stress in this region. Similarly, rising tensions in the climate-exposed Niger Delta reflect a long-standing secessionist movement driven in large part by disputes over state management of oil revenues, deteriorating environmental conditions, and economic development challenges.

Nigeria's crises in the North, Middle Belt, and Niger Delta highlight how compound fragility-climate risks can heighten populations' insecurity by increasing their vulnerability to humanitarian emergencies and conflict. All three regions show evidence of high climate stress and limited state capacity to adequately respond to interrelated environmental, social, economic, and security dynamics. The potential for significant resource competition and internal displacement due to drought and famine in the northern and central areas, as well as conflict over unaddressed grievances in the southern areas, could lead to greater instability across Nigeria. This could in turn place greater pressure on Nigerian security services and offer new opportunities for groups engaged in conflict to press over-extended state forces, while also providing new recruitment opportunities among disaffected populations.

The dynamics in all three of these regions reflect the Nigerian state's low capacity to address or partner in addressing the fragility and climate challenges it faces. The severity of fragility across all spheres in Nigeria presents substantial challenges to state implementation of policies to address the country's climate challenges, as this would require reforms to advance adaptation and resilience initiatives in the social and economic spheres, effective political processes to serve as a conduit between public needs and state responses, and a stable security environment within which to operate. Nigeria's persistently troubled management of each of these spheres, however, suggests that effective policy implementation has been lacking in each of these spheres and will be difficult in the years ahead. Nigeria's ongoing crises also highlight that opportunities to change the country's trajectory do exist, particularly at the institutional level, and may sometimes be best leveraged in nontraditional ways that can yield co-benefits for both peace and climate adaptation.

INTRODUCTION

States with high exposure to climate hazards face multi-faceted challenges, including physical and livelihood risks for the population that may force states to redirect scarce resources to adaptation or humanitarian response efforts and strain the capacity of states that, in many cases, are still solidifying democratic institutions and mechanisms for meeting public needs. Similarly, fragility can affect many aspects of a state's capacity and legitimacy across its political, economic, social, and security spheres. When states face fragility and climate risks simultaneously, the risks and challenges are compounded.

This study examines states with compound fragility-climate risks—those that have both substantial fragility challenges and high exposure to multiple climate hazards. The reason for this is straightforward: responding to high exposure to even a single hazard requires substantial resources, infrastructure, and mobilization, yet a country that has high exposure to multiple hazards requires such resources, infrastructure, and mobilization many times over to address each of these diverse hazards. For a highly fragile state like Nigeria that faces substantial risks from both slow-onset hazards like droughts and rapid-onset hazards like coastal flooding, riverine flooding, and wildfires, these diverse threats and the required responses can exceed state capacity and social capital.

Compared to other countries worldwide, Nigeria's compound fragility-climate risks are among the highest, yet the severity of fragility and conflict in Nigeria has hindered the state's response to climate challenges. This relationship between fragility and climate risks in Nigeria is even more important to understand given that, in some locations, environmental stress—coupled with government mismanagement of resources—contributes to the instability the country now faces from land conflicts and food crises.

This brief first identifies the locations and populations across Nigeria that face the greatest climate exposure risks and outlines the specific climate risks they face. Second, it discusses current fragility dynamics, the capacity of the state to respond to public needs in various spheres, and the aspects of fragility that present the greatest potential sources of instability. Lastly, it describes how the state's compound fragility-climate risks heighten insecurity in Nigeria.

CLIMATE RISKS

Nigeria is prone to a variety of climate-induced hazards, including floods, storms, ocean surges, droughts, and wildfires. Changes in climate may increase the frequency and intensity of extreme events in Nigeria.¹ According to the EM-DAT International Disasters Database, Nigeria experienced more than 40 climate-related disasters between 2000 and 2016.² The climatological events that have killed or affected the largest numbers of people during this time were floods in 2010 and 2012 that affected 1.5 million and 7 million people respectively.³ The 2012 floods affected people along the Niger and Benue rivers, as well as large numbers of people in the Niger River Delta in Bayelsa and Delta states, in part because of upstream dam releases of excess water.⁴

1 USAID 2012.

2 Guha-Sapir, Below, and Hoyois 2017. The climate exposure measure used in this study includes flood data through 2007, which is the most recent globally available data. While the later years' events referenced here from EM-DAT are thus not reflected in the observed climate data this study used, this study's flood indicator is more broadly applicable than just the years for which there are observed data. The indicator includes observed flood events from 1999 to 2007 and combines this with a GIS model that uses statistical estimation of peak-flow magnitude, scaled to represent the estimated number of flood events per 100 years. For the process used to create the flood indicator, see Moran et al. 2018.

3 Drought does not enter into the EM-DAT database of reported disasters. See Guha-Sapir, Below, and Hoyois 2017.

4 OCHA 2012.

This study’s climate exposure measure seeks to identify places that are vulnerable to a combination of climate hazards.⁵ It assesses climate exposure using historical data on six key hazards—rainfall anomalies, chronic aridity, wildfires, floods, cyclones, and low-elevation coastal zones—and combines them into a single composite measure to also assess overall risk.⁶ Nigeria faces a confluence of climate hazards that contribute to its high overall climate exposure, as Table I describes and Figure I shows.

TABLE I: INDICATORS USED TO ASSESS CLIMATE EXPOSURE

| Hazard | Exposure in Nigeria |
|-----------------------------|---|
| Rainfall anomalies | The areas with large reductions in rainfall are primarily along the eastern edge and the central to southern parts of the country. Along the east, this includes Adamawa state, the southern part of Borno state, Gombe state, and Taraba state. In the central part of Nigeria, the states with dry rainfall anomalies include Imo, Abia, Enugu, Kogi, Nassarawa, Federal Capital Territory, Plateau, Kaduna, and Niger. |
| Chronic aridity | The northern part of the country is chronically arid. The northeastern states of Borno and Yobe are the most arid, followed by Kano, Jigawa, Katsina, Zamfara, and Sokoto states. |
| Wildfires | The most wildfire-prone states are in the southern part of the country near the coast: Rivers, Imo, Delta, and Bayelsa states. The northernmost tip of Borno state is also prone to fires. |
| Low-elevation coastal zones | Several coastal states face high exposure to coastal flooding due to low elevation. These include Lagos state, home to the city of Lagos and its more than 11 million people; Rivers state, home to the city of Port Harcourt with its population of nearly 2 million; and Bayelsa, Delta, Ondo, and, to a lesser extent, Akwa Ibom and Cross River states. |
| Floods | Flood-prone areas along Nigeria’s rivers include the Sokoto River in the northwest in Sokoto and Kebbi states. The Sokoto feeds into the Niger River, which itself is flood-prone in Niger and Kogi states in the central part of the country and in Anambra and Imo states in the south. The Benue River that extends from central-eastern Nigeria before meeting the Niger River in the center of the country is also subject to flooding. The other major flooding areas are in the complex of rivers in the northeastern part of the country, including the Hadejia, Komadugu Gana, Yedseram, and Gongola rivers. |

Nigeria has more than 41 million people—24 percent of its population—living in *high* climate exposure areas. Further, 4.5 million of these people are in areas with not just *high* but *very high* climate exposure.⁷

Populations in Nigeria face high exposure to a wide range of climate hazards across the country.⁸ As Figure I shows, some of the highest overall exposure is concentrated in the coastal states, including the coastal areas of Lagos and Rivers states, where large population concentrations live in the cities of Lagos and Port Harcourt respectively. People often live in port cities along coasts because those are sources of economic dynamism, yet the areas are also often subject to flooding from rivers and storm surge. USAID has estimated that 27 to 53 million people may need to be relocated with a 0.5-meter increase in sea level,

⁵ The global climate exposure measure developed for this study for USAID is based on similar regional measures developed by Joshua W. Busby, Todd G. Smith, Nisha Krishnan, and Charles Wight for the Robert Strauss Center for International Security and Law’s U.S. Defense Department-funded programs on Climate Change and African Political Stability (CCAPS) and Complex Emergencies and Political Stability in Asia (CEPSA).

⁶ *Cyclone winds* are measured as the average sum of winds in kilometers per year based on the frequency and speed of cyclone events. *Low coastal zones* are measured in meters above sea level. *Floods* are measured as the number of flood events per 100 years. *Wildfires* are measured as the number of wildfire events per year. *Chronic aridity* is measured as the coefficient of variation (CV) based on monthly variation, with low CV reflecting consistent rainfall and high CV reflecting long periods of very little rain punctuated by short periods of high rainfall. *Rainfall anomalies* are measured as months of drought. For data sources, the rationale for each indicator, and the process used to map individual climate hazards and overall exposure, see Appendix A in Moran et al. 2018.

⁷ *High* exposure areas are defined here as one standard deviation or more above the global mean exposure. *Very high* exposure areas are four standard deviations or more above the global mean exposure. For population-based metrics of climate exposure worldwide, see Smith, Krishnan, and Busby 2016. For territory-based metrics of climate exposure, see Krishnan, Busby, and Smith 2016.

⁸ For additional discussion of Nigeria’s current and projected future climate vulnerabilities, see work by Joshua Busby, Todd Smith, and Kaiba White in Moran et al. 2011.

which Nigeria is expected to see by the end of this century.⁹ The coastal states in Nigeria face extensive risks from storm surge along the entire coast, inland flooding and wildfires in the Niger Delta region, and negative rainfall anomalies in the southeast.

The northern part of the country faces chronic aridity across the northern states and riverine flooding along the Sokoto River in the northwest and the Komadugu River system in the northeast. While analysts frequently worry about the chronically arid North, the Middle Belt shows particularly high exposure and is often cited as a region buffeted by land-use tensions between pastoralists and farmers over grazing rights and water access. High-exposure areas here include the eastern and central parts of the Middle Belt—from Adamawa state and southern Borno state in the east to Gombe, Plateau, Kaduna, Nassarawa, and the Federal Capital Territory, where the capital Abuja is located, home to more than 2 million people. The specific climate risks in the Middle Belt include extensive negative rainfall anomalies and flooding along the Niger and Benue rivers. Another high-exposure area is the corridor from Nassarawa state through Enugu and Imo states to the coast.

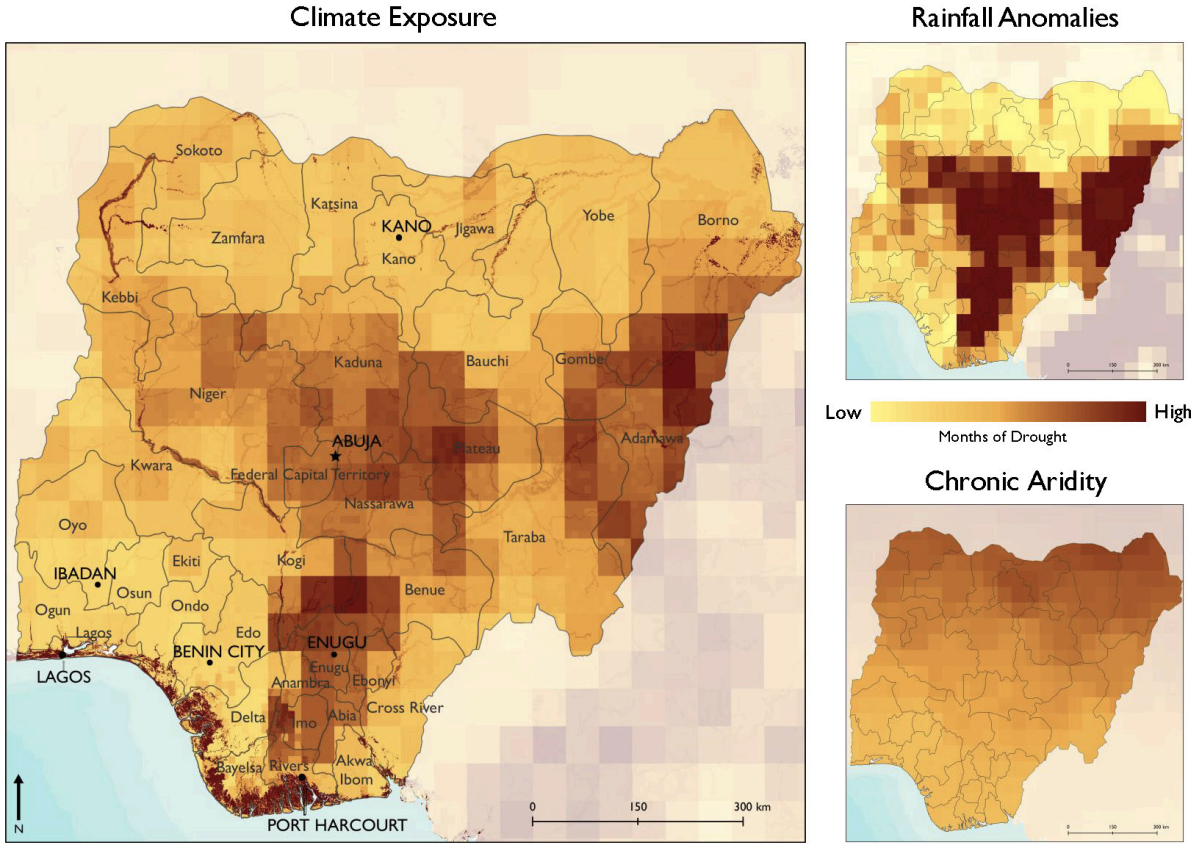
Borno state has drawn increasing attention lately due to high famine risk, particularly among children under age 5, as a result of the internal displacement of 2 million people due to Boko Haram insurgents.¹⁰ This famine risk appears to be driven primarily by political violence disrupting harvests and aid supplies rather than by meteorological factors.¹¹ The internationally declared emergency conditions and famine risks in this region thus result not from climate factors alone, but from interaction between climate exposure, environmental degradation, weak management of natural resources and the impacts of resource use, and the poor security and socioeconomic conditions in the region.

⁹ USAID 2012.

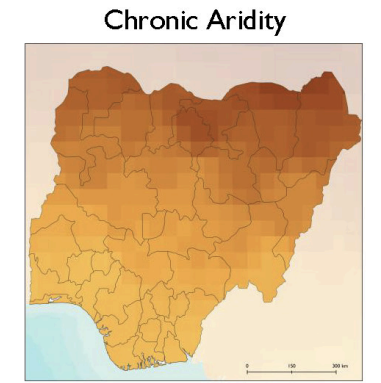
¹⁰ McNeil 2017.

¹¹ Greenwood 2016.

FIGURE I: SOURCES OF CLIMATE EXPOSURE



Low High
Months of Drought



Low High

Data sources: Global Precipitation Climatology Centre, UNEP/GRID-Europe, Viewfinder Panoramas

Low High

Low Coastal Zones



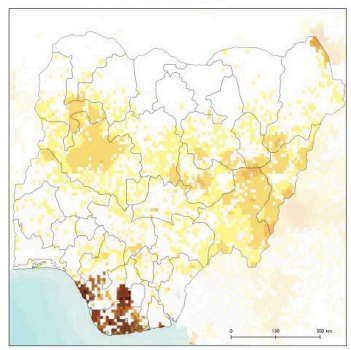
10+ 9 8 7 6 5 4 3 2 1 0
meters above sea level

Floods



2 - 14
15 - 27
28 - 41
42 - 55
56 - 70
71 - 99

Wildfires



7 - 24
25 - 47
48 - 80
81 - 132
133 - 218
219 - 354
355 - 1,607

FRAGILITY RISKS

Nigeria’s ability to address its widespread, diverse climate risks depends greatly on its state capacity and societal resilience. This study understands fragility as being rooted in poor state capacity and poor state-society relationships, both of which can contribute to instability. It thus assesses fragility in state effectiveness (i.e. capacity of public sector institutions) and legitimacy (i.e. public support for government arrangements, officials, and practices) in four key spheres: political, security, economic, and social.¹² The fragility measure used here is a country-level measure in which overall fragility reflects an accumulation of scores on a range of state effectiveness and legitimacy indicators, as Table 2 shows. Based on the accumulation of these indicator scores, each state receives an overall fragility score and classification in one of five fragility categories: *low*, *some*, *moderate*, *high*, and *highest* fragility.

Nigeria is in the *highest* category of fragility compared to other countries globally, and it experiences the highest fragility of all countries in West Africa and among the highest fragility of all countries in sub-Saharan Africa.¹³ The country’s fragility increased considerably over the 15-year study period, with its overall fragility score rising 35 percent from 43 in 2000 to 58 in 2014 as the country experienced challenges in delivering public services, preventing corruption, ensuring political pluralism, and maintaining security.

TABLE 2: INDICATORS USED TO ASSESS STATE FRAGILITY

| Type | Effectiveness | Legitimacy |
|-----------|--|---|
| Political | Quality of public service # of successful coups d’état in last five years Government tax revenue as percent of GDP | Competitiveness of political participation Citizen participation in selecting government Asylum requests as percent of population |
| Security | Intensity of ongoing armed conflict Size of displaced population Proportion of country affected by conflict | State use of political terror Presence of militant groups against the state Number of rivaling military organizations |
| Economic | GDP per capita Poverty headcount ratio Primary commodity exports as percent of total | Control of corruption Rule of law and property rights protection # of days to start a business |
| Social | Infant mortality rate Child immunization rates Percent of population with access to improved water source | Military expenditures as percent of GDP Percent of parliamentary seats held by women Life expectancy at birth |

¹² This global fragility measure was compiled for this study by Roudabeh Kishi and Andrew Linke with contributions from Clionadh Raleigh, and Ashley Moran. *Total fragility* reflects an accumulation of scores on a range of state effectiveness and legitimacy indicators. Effectiveness indicators assess the capacity of public-sector institutions and practices. Legitimacy indicators assess the degree of direct or indirect public support for government arrangements, officials, and practices. These two sets of indicators are subdivided into political, security, economic, and social indicators to capture state effectiveness and legitimacy in each of these four key spheres, as Table 2 shows. For cross-national fragility scores and raw data, see Kishi and Linke 2016. For a complete list of data sources, the rationale for including each indicator, and the process used to produce state fragility scores, see Moran et al. 2018.

¹³ The range of *total fragility* scores across all countries in 2014 is 0 to 69. Scores for countries in the *highest* fragility category in 2014 ranged from 53 to 69, with Nigeria’s score of 58 falling in the bottom half of these countries. Scores for West African countries in 2014 ranged from 18 to 58, with Nigeria’s score of 58 at the top. Scores for all sub-Saharan African countries in 2014 ranged from 0 to 66, with Nigeria’s score of 58 topped only by the higher fragility scores of the Central African Republic, Somalia, and Sudan. Global and regional fragility dynamics are discussed in more detail in Section 3.5 Global Fragility Patterns in Moran et al. 2018.

Key Areas of Concern

Nigeria's overall fragility stems from poor state effectiveness and even more so from poor and dwindling state legitimacy. While legitimacy and effectiveness deficits both worsened over the 15-year study period, state legitimacy deteriorated more precipitously.

Nigeria's poor overall *legitimacy* scores stem primarily from poor and worsening *political legitimacy* and *economic legitimacy*, as well as dramatically worsening *security legitimacy*, as Table 3 shows.¹⁴ Nigeria's poor *political legitimacy* scores reflect relatively low citizen participation in selecting the government and limited opportunities for alternative policy and leadership preferences since the same political party, the People's Democratic Party, held the presidency from the reinstatement of civilian rule in 1999 until 2015. The win by the All Progressives Congress in the 2015 presidential election—reflecting the first opposition party victory over a governing party in a presidential election in Nigeria—reflects key progress in increasing political competition, if sustained. Nigeria's poor *political legitimacy* scores also reflect an increasing number of asylum requests as a percentage of the population, signaling that more people have lost faith in the legitimacy of their government and are taking diplomatic steps to leave the country.

Nigeria's worsening *economic legitimacy* scores during the 15-year study period stem from the country's rankings on indices indicating high corruption, limited and at times declining rule of law and private property protections, and barriers to joining the formal economy. Nigeria's growing legitimacy deficits, however, are largely in the area of *security legitimacy* and are due to increasing state violence, the presence of armed groups contesting the state (most notably Boko Haram), and a growing number of communal militias—all signaling a lack of state control and the assumption of security duties by non-state actors.

TABLE 3: STATE LEGITIMACY DEFICITS IN NIGERIA

| Year | Total Legitimacy Deficits | Political Legitimacy Deficits | Security Legitimacy Deficits | Economic Legitimacy Deficits | Social Legitimacy Deficits |
|--------------------|---------------------------|-------------------------------|------------------------------|------------------------------|----------------------------|
| % change 2000-2014 | ↑ 67% | ↑ | ↑ | ↑ | - |
| 2014 score | 30 | 9 | 9 | 8 | 4 |
| 2000 score | 18 | 8 | 0 | 6 | 4 |

Note: The range of *total legitimacy* scores across all countries in 2014 is 0 to 38. *Total legitimacy deficits* for countries in the *highest* fragility category in 2014 range from 25 to 38, with Nigeria's score of 30 near the middle. *Total legitimacy deficits* for West African countries in 2014 range from 8 to 30, with Nigeria's score of 30 at the top. In the percent change row, an up arrow denotes that the country's *legitimacy deficit* score went up over those 15 years, indicating an increase in fragility; a down arrow denotes that the country's *legitimacy deficit* score went down over those 15 years, indicating a decrease in fragility.

Data source: Kishi and Linke 2016.

Nigeria saw a slight worsening of its overall state *effectiveness* scores over the 15-year study period, with worsening *political effectiveness* and *security effectiveness* scores offsetting modest improvements in still-poor *economic effectiveness* and *social effectiveness* scores, as Table 4 shows.¹⁵ Nigeria's poor *political effectiveness* scores stem from large and worsening deficits in the quality of public service and state capacity for tax revenue generation. The slumps in state capacity in these areas were particularly pronounced from 2002 to 2012. From 2002 to 2010, Nigeria saw notable declines in the quality and independence of its public institutions. Further, in 2002, tax revenue as a percent of GDP fell by half from the prior year (to 8 percent) then fell to less than 1 percent of GDP by 2004. It rose back to 8 percent in 2013, but the continued low tax-revenue generation capacity of the state could be a key deficit in its ability to fund itself

¹⁴ This study's *total legitimacy* score comprises political, security, economic, and social indicators that capture state legitimacy in each of these spheres, as Table 2 shows. Fragility scores and raw data for all indicators discussed in this section are available in Kishi and Linke 2016.

¹⁵ This study's *total effectiveness* score comprises political, security, economic, and social indicators that capture state effectiveness in each of these spheres, as Table 2 shows. Fragility scores and raw data for all indicators discussed in this section are available in Kishi and Linke 2016.

if oil revenues decline, and it reflects a critical weakness in state institutions and public accountability. The country's poor *security effectiveness* scores stem from the growing proportion of state territory impacted by ethnic conflict in recent years.

While Nigeria has large effectiveness deficits across all four spheres—political, security, economic, and social—the largest effectiveness deficits lie in *social effectiveness*, as Table 4 shows. The country's poor *social effectiveness* scores reflect exceedingly poor social service provision across a range of sectors, with among the highest infant mortality rates, lowest child immunization rates, and lowest rates of access to improved water sources and sanitation in Africa and the world.

TABLE 4: STATE EFFECTIVENESS DEFICITS IN NIGERIA

| Year | Total Effectiveness Deficits | Political Effectiveness Deficits | Security Effectiveness Deficits | Economic Effectiveness Deficits | Social Effectiveness Deficits |
|--------------------|------------------------------|----------------------------------|---------------------------------|---------------------------------|-------------------------------|
| % change 2000-2014 | ↑ 12% | ↑ | ↑ | ↓ | ↓ |
| 2014 score | 28 | 6 | 6 | 5 | 11 |
| 2000 score | 25 | 4 | 2 | 7 | 12 |

Note: The range of *total effectiveness* scores across all countries in 2014 is 0 to 34. *Total effectiveness deficits* for countries in the *highest fragility* category in 2014 range from 18 to 34, with Nigeria's score of 28 falling in the top half. *Total effectiveness deficits* for West African countries in 2014 range from 10 to 30, with Nigeria's score of 28 near the top. In the percent change row, an up arrow denotes that the country's *effectiveness deficit* score went up over those 15 years, indicating an increase in fragility; a down arrow denotes that the country's *effectiveness deficit* score went down over those 15 years, indicating a decrease in fragility.

Data source: Kishi and Linke 2016.

Key Area of Improvement

Nigeria's modest improvement in *economic effectiveness* scores during the study period stems from rising GDP per capita, bringing the country's fragility in this area below the regional average for West Africa. The country's *economic effectiveness* deficits remain high, however, since it has among the highest poverty rates globally and is highly dependent on oil exports, leading to vulnerabilities both in development of the economy and in the long-term funding of the government and public services if oil revenues decline. Still, relative to other areas of state performance, the economic sphere may be an area where the state has greater capacity to implement policies to address public needs.

Overall, however, despite the modest gains in *economic effectiveness* over the 15-year study period, Nigeria's persistently troubled management of the security, political, and social spheres, and its stagnant or declining legitimacy across all spheres—security, political, economic, and social—reflect that effective policy implementation has been lacking in each of these spheres and will be difficult in the years ahead. The severity of fragility in Nigeria across all spheres presents substantial challenges to state implementation of policies to address the country's climate challenges, which requires policy reforms to advance adaptation and resilience initiatives in the social and economic spheres, effective political processes to serve as a conduit between public needs and state responses, and a stable security environment within which to operate. The impact of such protracted fragility risks, compounded by climate risks, is discussed more in the next section.

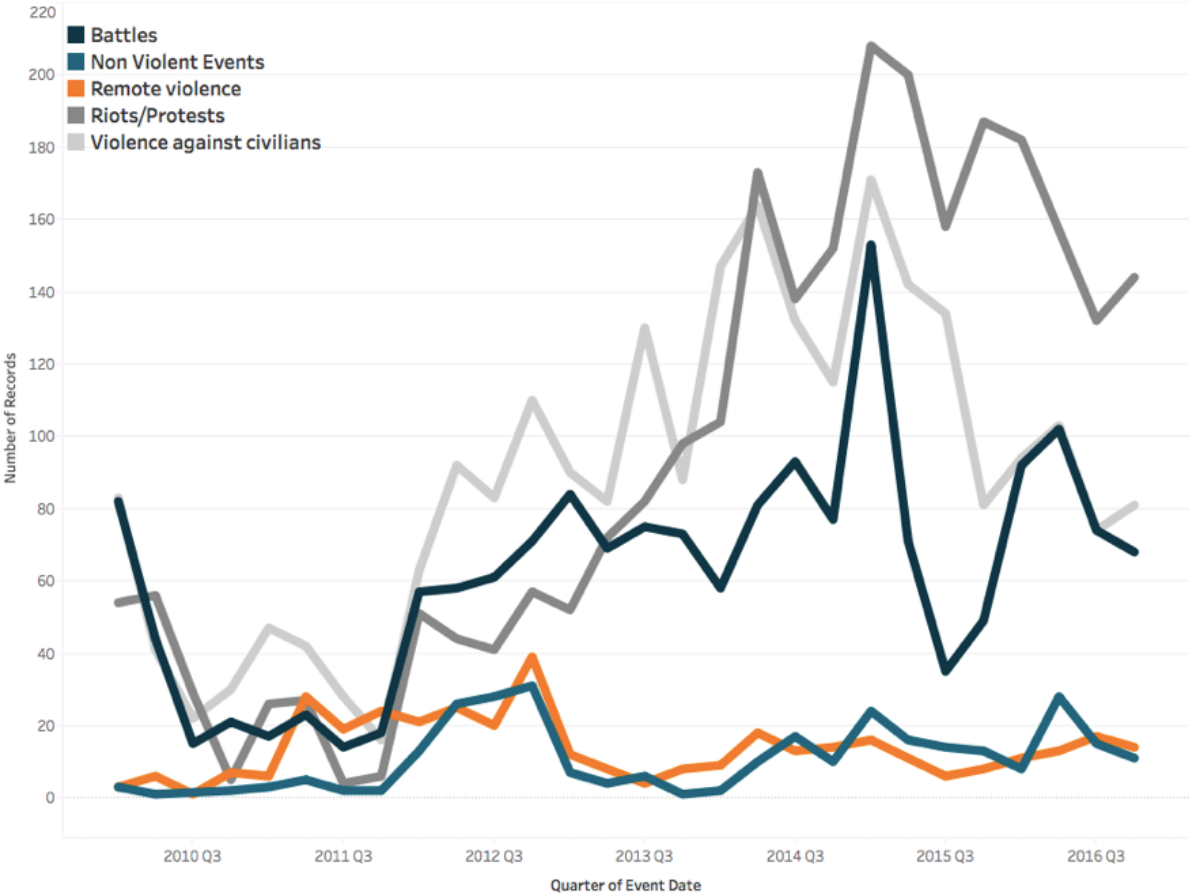
Key Sources of Fragility

While Nigeria has among the highest compound fragility-climate risks globally, the severity of fragility and conflict in Nigeria has hindered the state's response to climate challenges. Nigeria is embroiled in multiple long-term conflicts that both reflect and contribute to deep weaknesses in state capacity. This is an

important consideration in assessing the capacity of the state to address fragility and climate risks. The existence of very high, sustained violence indicates that state institutions from the national to the local level are continually pressured and challenged. The state’s overall inability to prevent violence suggests that at least some national institutions may be weakened to the point of being presently unable to reform to address the key political, economic, and social issues that lead to violence. These conflict patterns also indicate that the state is likely hosting varied motivations for and responses to these multiple ongoing conflicts, as the politics that give rise to competition in one region of a state are unlikely to be the same as those in another region, and both may or may not be unrelated to larger national tensions. This section thus explores how Nigeria’s protracted fragility, compounded by climate risks, gives rise to several identifiable sources of instability across the state.

Nigeria is home to significant levels of violence, and it has the highest fatality rates per event compared to other active cases across the continent.¹⁶ While conflict has risen in the past decade, violence rates have reached a high but stable plateau in the past three years (see Figure 2) and relative rates of violence by agent type have also stabilized (see Figure 3).

FIGURE 2: POLITICAL VIOLENCE AND PROTEST EVENTS IN NIGERIA, 2010–2016

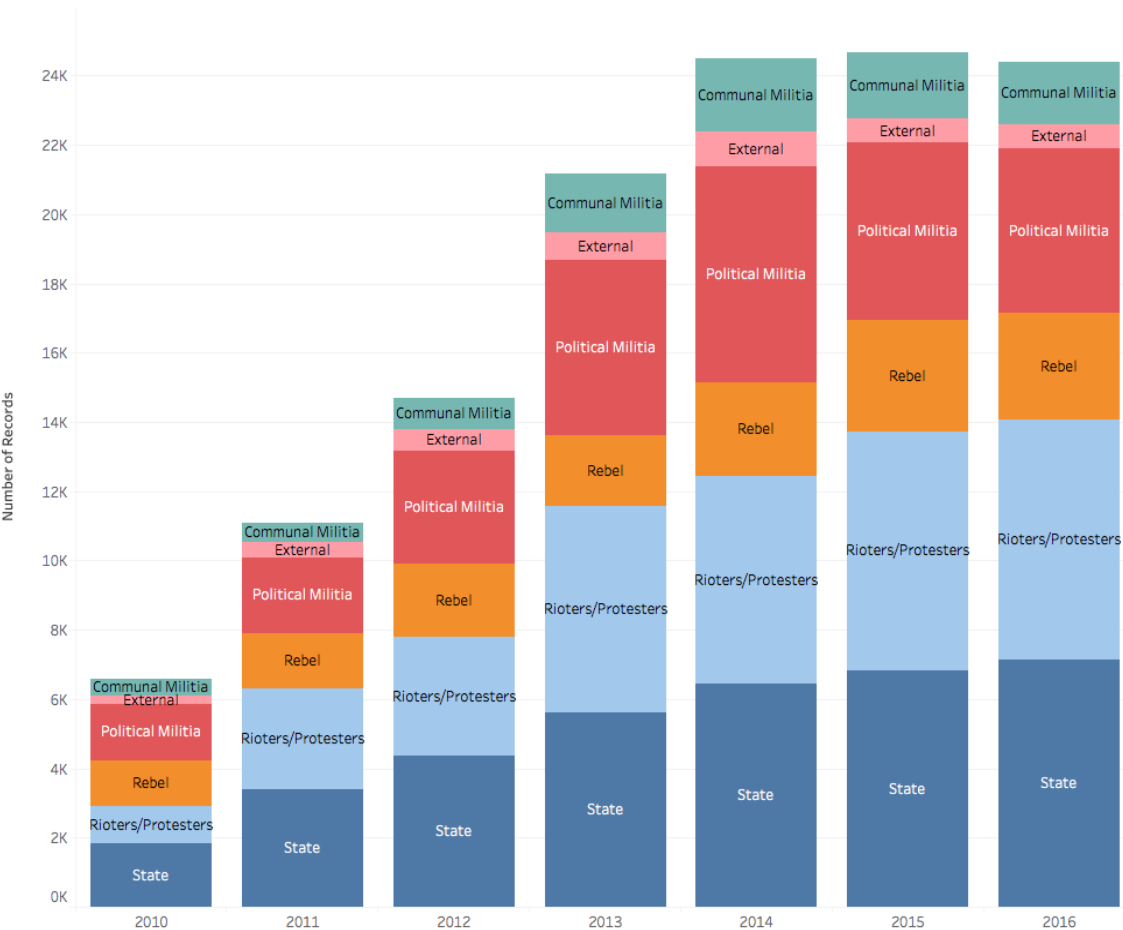


Data source: ACLED 2018.

¹⁶ The Armed Conflict Location and Event Data (ACLED) used here define political violence as “the use of force by a group with a political purpose or motivation. ACLED defines political violence through its constituent events, the intent of which is to produce a comprehensive overview of all forms of political conflict within and across states. A politically violent event is a single altercation where often force is used by one or more groups for a political end, although some instances—including protests and non-violent activity—are included in the dataset to capture the potential precursors or critical junctures of a conflict.” See Raleigh and Dowd 2017.

As Figure 3 shows, organized violent actions are most common by both the state and an array of political militias, while rebel actions by Boko Haram are also a significant and stable proportion of the total. However, the number of distinct communal and political militias suggests that multiple groups create local risk and instability across the state, albeit resulting in a small number of events per group. The exception is the Fulani militia, regarded as one group operating over a large area and creating very high levels of instability. Relatively underpublicized in Nigeria is the high rate of rioting and protesting, as Nigerians attempt to act on their various struggles, particularly in making demands of government administrations from the local to the national levels. Many groups are rioting and protesting in Nigeria, and coordination is minimal across these many disparate groups.

FIGURE 3: CONFLICT RATES BY ACTOR TYPE IN NIGERIA, 2010–2016



Note: “External” conflict actors include any group based outside the state such as a foreign terrorist group or the military of a neighboring state.

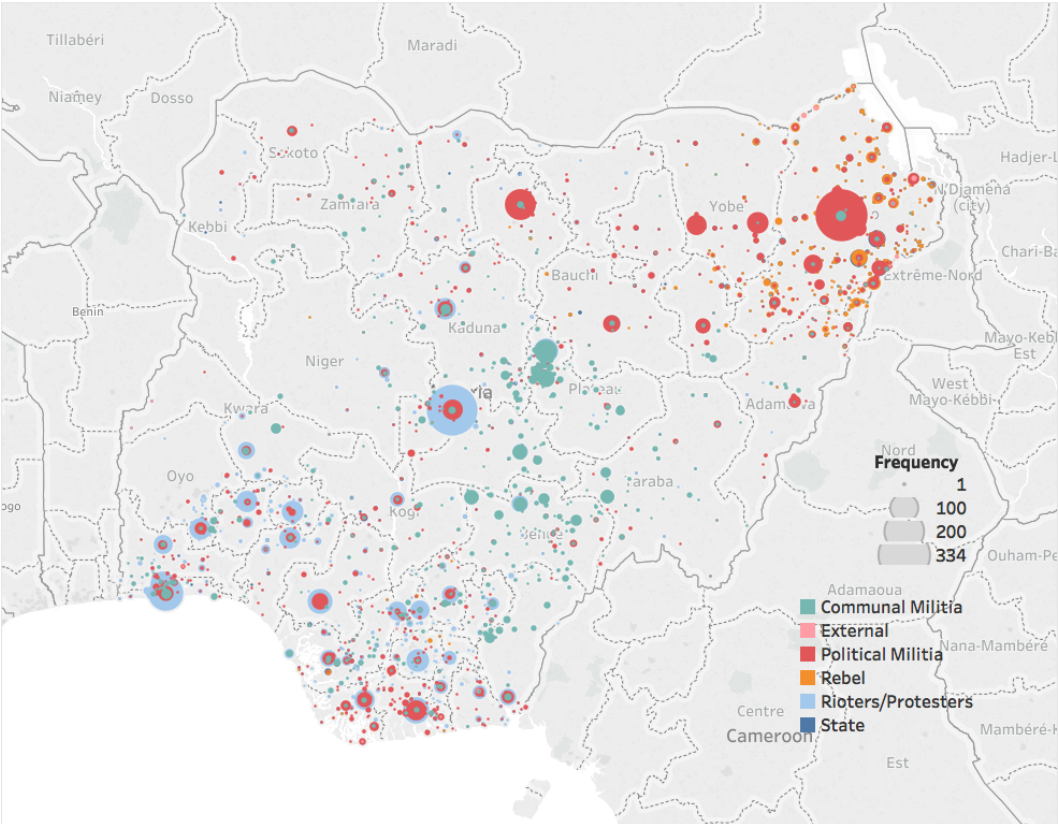
Data source: ACLED 2018.

As of 2016, Nigeria has witnessed a slight downward trend in violence, but three instability trends remain: conflict and famine risk in the North, rising violence between herders and farmers in the Middle Belt, and simmering tensions over management of natural resources in the Niger Delta. Together these three dynamics represent a microcosm of the conflict landscape in Nigeria.

Boko Haram in the North

Boko Haram is West Africa’s most active and lethal conflict actor. Beginning in late 2014, Boko Haram’s ability to take and hold territory led to increasing attacks across Nigeria. Most of these incidents have occurred in Borno, Adamawa, Gombe, and Yobe states—states also hard-hit by multiple climate hazards (see rebel and political militia conflict events in Figure 4 and climate risk profile in Figure 1).¹⁷ The militant group also staged attacks in the neighboring countries of Cameroon, Chad, and Niger. However, Boko Haram’s single most dramatic attack was the January 2015 Baga massacre, which is believed to have resulted in as many as 2,000 fatalities. Besides the large number of fatalities, the attack was particularly audacious as Baga is the headquarters of the Multinational Joint Task Force made up of troops from Cameroon, Chad, Niger, and Nigeria. This attack played a major role in catalyzing a joint offensive that Nigeria agreed to and that included intervention by Chadian and Nigerien, and later Cameroonian, troops into the conflict. The successful multinational offensive took back a considerable amount of territory from Boko Haram, successfully isolating the group to a relatively small area around the Sambisa Forest.

FIGURE 4: CONFLICT LOCATIONS BY ACTOR TYPE IN NIGERIA, 2010–2016



Data source: ACLED 2018.

The battle against Boko Haram turned decisively in the state’s favor in 2016, as the state killed or captured a large number of Boko Haram fighters. This paved the way for it to secure significant amounts of territory from the insurgent group. An important strategic and symbolic victory occurred in clearing Boko Haram out of the Sambisa Forest, its primary stronghold, in December 2016.¹⁸ During this operation, the military reported the rescue of more than 1,880 civilians and the capture of hundreds of Boko Haram insurgents,

¹⁷ Prior to 2014, Boko Haram is classified as a political militia. In 2014, the group’s aims and strategies changed and it was reclassified in these data as a rebel group.

¹⁸ Vanguard 2016.

dealing a serious blow to the group.¹⁹ These military successes translated into a clear reduction in recorded conflict fatalities in Nigeria. By the end of 2016, conflict fatalities were at their lowest levels since early 2013, prompting Nigerian President Muhammadu Buhari to declare victory against the group.²⁰

Despite the considerable territorial and military losses Boko Haram suffered in Nigeria from 2016 to 2018, the group is believed to still possess bases in the territories of Nigeria's neighbors across the Lake Chad basin, and it has retained the ability to successfully attack soft targets in Nigeria. Its attacks against civilians and attacks involving remote violent have continued in Nigeria, particularly in Borno and Adamawa states. Boko Haram renewed ceasefire talks with the Nigerian military in 2018, though these negotiations are complicated by the group's continued violence against civilians in Nigeria, increasing conflict activity outside of Nigeria, and competing leadership factions in its ranks.²¹ The group's continued activity in Nigeria, however, conveys that its actual defeat has proved elusive.

Fulani Militias in the Middle Belt

The Middle Belt is located along the traditional migration route for Muslim Hausa-Fulani herders in northern Nigeria and neighboring countries. These herders have typically sought grazable land further south, which has brought them into conflict with Christian Yorubas, who tend to be settled farmers. Ongoing conflict between largely Fulani herders and non-Fulani farmers in Benue, Kaduna, and Taraba states has resulted in large displacements of people and razing of homes and villages. The disputes behind the violence allegedly focus on the use of resources such as farmlands, grazing areas, and water, with both sides claiming grievances against the other. With Nigerian government capacity stretched thin in recent years by Boko Haram, the government has had limited response to the violence stemming from these climate-related grievances in the high-exposure Middle Belt.

Fulani violence against civilians has been steadily rising. In the first half of 2018, the rate of Fulani attacks against civilians was nearly 50 percent higher than that of Boko Haram. In mid-2018, the Nigerian government redirected troops to challenge the increasing number of Fulani raids in the Middle Belt. The impact of this strategy remains to be seen, however, both in terms of combating Fulani militias in the Middle Belt and potentially creating a window for Boko Haram to regroup in the North.²²

Diffuse Instabilities in the South

The Fulani in the Middle Belt are not the sole communal group acting to secure their territory. As Figure 5 shows, communal violence is widespread outside the Middle Belt and particularly in the south of the country. Yet Figure 6 illustrates that the actions of the state are largely concentrated where Boko Haram is active, while other conflicts elicit limited state response.

In this context of limited state management of diffuse local conflicts in the south and minimal progress addressing underlying conditions that have stoked past instability in the Niger Delta, the long-brewing secessionist movement has continued to simmer in the Niger Delta. A report by the International Crisis Group notes that the "government has largely failed to carry out ... recommendations that addressed the insurgency's root causes, including inadequate infrastructure, environmental pollution, local demands for a bigger share of oil revenues, widespread poverty, and youth unemployment."²³ If violence continues to escalate in the Niger Delta, this would put considerable additional pressure on the state both militarily and financially as infrastructure continues to be targeted in that region.

¹⁹ Gaffey 2016.

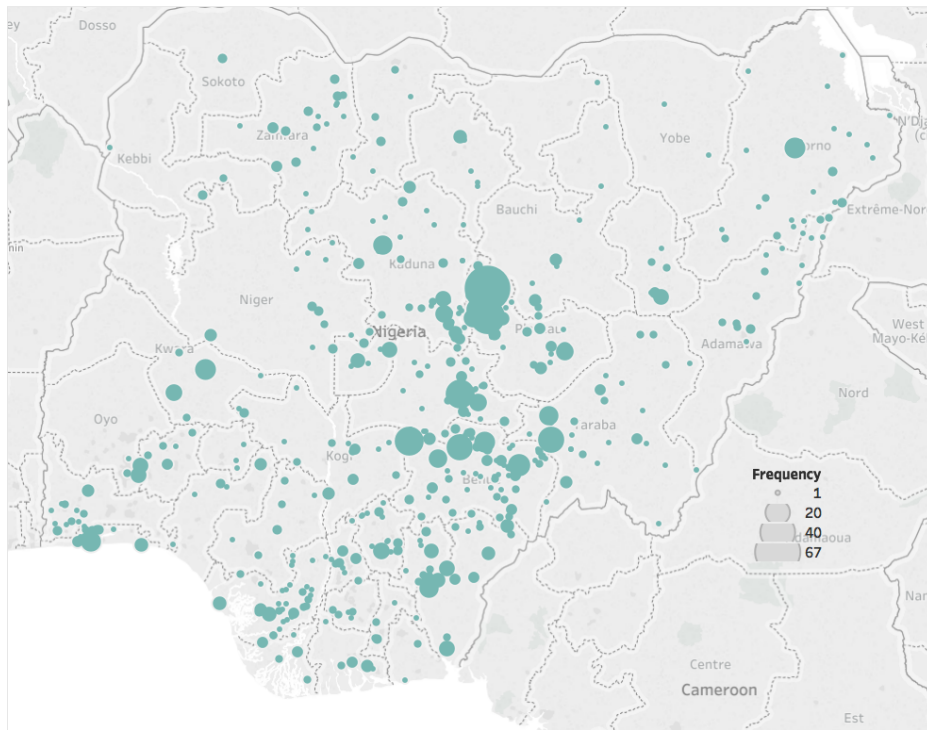
²⁰ Al Jazeera 2016.

²¹ Kishi and Vannice 2018.

²² Vannice 2018.

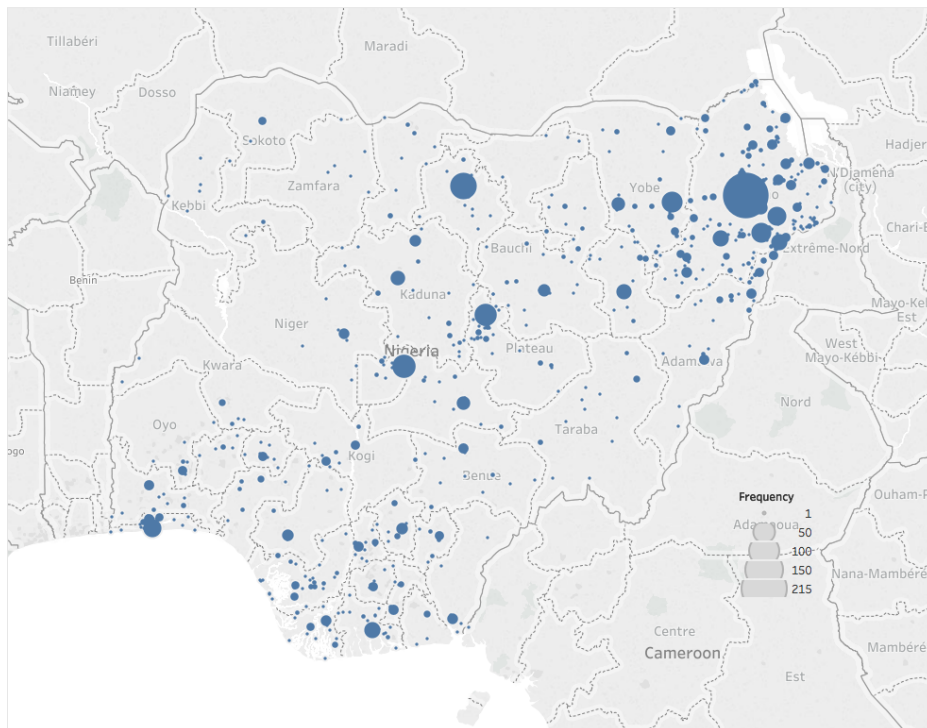
²³ Ibekwe 2015.

FIGURE 5: COMMUNAL VIOLENCE IN NIGERIA, 2010–2016



Data source: ACLED 2018.

FIGURE 6: STATE ACTIONS OF POLITICAL VIOLENCE IN NIGERIA, 2010–2016



Data source: ACLED 2018.

Overall, since 2017, Nigeria has been the second most violent state in Africa, accounting for approximately 10 percent of all weekly political conflicts across the continent. Since attacks against civilians make up a large part of this violence, the risk to civilians in Nigeria is severe.²⁴ With violence against civilians being a key barrier to development in conflict-affected countries, tracking patterns in Boko Haram and Fulani attacks against civilians is key to implementing resilience initiatives and broader development efforts in Nigeria. The risks that conflict poses to state security are also high, but gradually reducing with key military victories in recent years. These dynamics will remain fragile, however, if the government does not take further action to bolster resilience and address underlying issues stoking the country's range of conflicts.

COMPOUND FRAGILITY-CLIMATE RISKS

Nigeria is a highly fragile state with extensive climate hazards that place extreme stress on the state in terms of both the population and land area exposed. Multiple exposure risks dispersed over a sizable portion of territory narrow livelihood choices and create broad additional requirements for the state, yet the severity of fragility and conflict in Nigeria has reduced the state's capacity to respond to climate challenges.²⁵ This is a critical connection since environmental stress—coupled with government mismanagement of environmental and other stressors—contributes to the instability the country now faces from food crises and land conflicts, risking a dangerous feedback loop between fragility and climate challenges in Nigeria. Three distinct sources of instability in Nigeria—conflict and famine risk in the North, rising violence between herders and farmers in the Middle Belt, and simmering tensions over management of natural resources in the Niger Delta—provide key examples of the challenges posed by compound fragility-climate risks in Nigeria.

Nigeria's current crises have both climate- and fragility-related components. In 2017, the Famine Early Warning Systems Network (FEWS NET) identified severe food insecurity and emergency conditions in northeastern Nigeria and projected food stress across all of the northern states, as well as Nassarawa, Taraba, and Adamawa states in the Middle Belt.²⁶ Nigeria's current crisis in the North, however, reflects emergency conditions and famine risks caused not by climate factors alone, but by longstanding environmental stress coupled with poor national management of the security, economic, and social conditions in that region.²⁷ While the North endures chronic aridity and high overall exposure, its overall exposure levels are not the highest in the country,²⁸ and this famine risk appears to be primarily driven instead by political violence disrupting harvests and aid supplies rather than by climate factors alone.²⁹ The environmental context could be an increasing source of tension, however, if scarcity persists over the longer term.

Likewise, the escalating security situation in the Middle Belt involves a highly climate-stressed region where the state has provided only limited response to growing food insecurity and has not sufficiently addressed ongoing tensions between Fulani herders and non-Fulani farmers over the use of land and water resources. Particularly given the state's limited response to such communal conflict in the past,³⁰ it has not demonstrated the capacity to manage the increased communal conflict or humanitarian crisis that could emerge from circumstances of increased food and water stress in this region. Similarly, rising tensions in the climate-stressed Niger Delta reflect a long-standing secessionist movement driven in large part by disputes over state management of oil revenues, deteriorating environmental conditions, and economic development challenges.

24 ACLED 2018.

25 For additional discussion of Nigeria's current and projected future climate vulnerabilities; international, regional, and national adaptation strategies; challenges related to food security, conflict contagion, and resource distribution; and potential unintended consequences of adaptation and opportunities for building resilience, see Moran et al. 2011.

26 FEWS NET 2017.

27 See Tables 3 and 4 and discussion in the Fragility Risks section of this brief.

28 See Figure 1 in the Climate Risks section of this brief.

29 Greenwood 2016.

30 See Figures 5 and 6 in the Key Sources of Fragility section of this brief.

Nigeria's crises in the North, Middle Belt, and Niger Delta highlight how compound fragility-climate risks can heighten populations' insecurity by increasing their vulnerability to humanitarian emergencies and violence. All three regions show evidence of high climate stress and limited state capacity to adequately respond to interrelated environmental, social, economic, and security dynamics. Further, as is noted in the debate on climate security, conflict patterns do show that poor management of environmental factors can contribute to already unstable and unequal conditions that in turn lead to organized violence. Such environmental factors can include management of water access, land use, resource wealth, and migration routes—all of which have been cited by conflict actors as grounds for ongoing disputes in Nigeria. The potential for significant resource competition and internal displacement due to drought and famine in the northern and central areas, as well as conflict over unaddressed grievances in the southern areas, could lead to greater instability across Nigeria. This could in turn put greater pressure on Nigerian security services and offer new opportunities for groups engaged in conflict to press over-extended state forces,³¹ while also providing new recruitment opportunities among disaffected populations.³²

On the bright side, the experience of Nigeria also underscores how examining compound fragility-climate risks may present new information about vulnerability and resilience and therefore offer a broadened set of strategies for reducing fragility and mitigating climate risk. Similar to most states with compound fragility-climate risks, in Nigeria, poor state legitimacy—reflecting public perceptions that the state is unwilling or unable to meet public needs—contributes significantly to overall fragility. Thus, state actions that respond to public needs to reduce climate vulnerabilities could simultaneously reduce both climate risks and the legitimacy deficits that contribute to fragility in Nigeria. Conversely, the state's inability to reduce public insecurities related to climate risks could further erode state legitimacy and social capital in Nigeria. This underscores the opportunity for a coordinated approach in states with high compound risks to focus on addressing interrelated fragility and climate risks simultaneously.

CONCLUSION

While Nigeria is pursuing climate actions through international frameworks for national adaptation planning, its ability to address its widespread, diverse climate risks depends greatly on its state capacity and societal resilience. Yet the country's fragility has increased considerably in recent years, and the state faces challenges to functioning effectively in all four spheres—political, security, economic, and social.

The ongoing long-term crises across Nigeria, which all exhibit evidence of high climate stress, both reflect and contribute to deep weaknesses in state capacity. The existence of sustained conflict signals the inability of the state to control its territory or advance reforms to address the political, economic, and social issues that lead to violence. The severity of fragility across all spheres in Nigeria thus presents substantial challenges to state implementation of policies to address the country's climate challenges, as this would require reforms to advance adaptation and resilience initiatives in the social and economic spheres, effective political processes to serve as a conduit between public needs and state responses, and a stable security environment in which to operate. Nigeria's persistently troubled management of each of these spheres, however, reflects that effective policy implementation has been lacking in each of these spheres and will be difficult in the years ahead. Nigeria's ongoing crises also highlight that opportunities to change the country's trajectory do exist, particularly at the institutional level, and may sometimes be best leveraged in non-traditional ways that can yield co-benefits for both peace and climate adaptation.

³¹ Reuters 2017.

³² Mercy Corps 2016.

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