Failed State 2030
Nigeria–A Case Study

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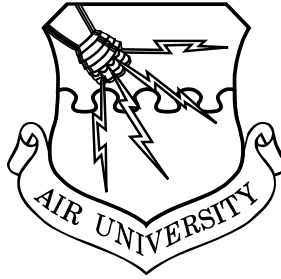**Douglas W. Jaquish, Colonel, USAF**
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About the Authors

Col Christopher J. Kinnan is the deputy director of the Center for Strategy and Technology (CSAT), Maxwell Air Force Base (AFB), Alabama. Colonel Kinnan, a space and missile officer, was previously assigned to the Air Staff as the deputy chief of Air Force Nuclear Operations and commanded the 45th Operations Support Squadron at Patrick AFB, Florida. In 1998 Colonel Kinnan served as the space weapons officer for Joint Task Force Southwest Asia and Operation Southern Watch. From January to June 2003 during Operation Iraqi Freedom, he served as a lead planner for Joint Task Force IV collocated with the combined forces land component commander at Camp Doha, Kuwait, and as the deputy chief of plans for both the Office of Reconstruction and Humanitarian Assistance (ORHA) and the Coalition Provisional Authority (CPA) in Baghdad, Iraq. He wrote and executed the plan establishing the Baghdad ORHA regional headquarters, leading the CPA interagency team that planned and executed a highly complex $450 million effort that paid salaries and provided emergency payments to three million Iraqis. The plan jump-started Iraq's economy and helped stabilize its financial and banking systems. Colonel Kinnan has a bachelor of arts degree in Russian/East European area studies from Auburn University, a master of management of information systems from Lesley College, a master of airpower arts and sciences degree from the School of Advanced Airpower Studies, and a master of strategic studies from Air University (AU).

Col Daniel B. Gordon is the chief of the Space and Nuclear Network Group at Hanscom AFB, Massachusetts. He has served as an engineer in the Aero Propulsion and Power Laboratory at Wright-Patterson AFB, Ohio, where he managed projects to advance turbine engine technologies. He also led the development of a variety of programs in airspace management, precision landing systems, and the maintenance system on the F-22. He has served in numerous staff positions at the major command, Air Staff, and combatant command levels. Colonel Gordon was also the chief of the Multinational Logistics Branch at Headquarters United States European Command in Stuttgart, Germany. Colonel Gordon has a bachelor of science degree in aerospace engineering from Pennsylvania State University, a master's in engineering management degree from Western New England College, and a master's in military operational art and science and a master of strategic studies from AU.

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Col Douglas W. Jaquish is the director of the National Assessment Group at Kirtland AFB, New Mexico. Colonel Jaquish began his career as an EF-111A electronic warfare officer, where he flew combat missions in Operations Southern Watch, Deny Flight, and Provide Comfort. He is a graduate of the Air Force Test Pilot School and has flown test and evaluation on the F-15, F-16, and T-38 aircraft. As commander, 452nd Flight Test Squadron, he oversaw the test and evaluation of several unmanned vehicles including the Predator and the X-45 as well as the Airborne Laser. He is a master navigator with over 2,600 total flying hours. Colonel Jaquish holds a bachelor of science in engineering sciences from the USAFA, a master of engineering in engineering mechanics from Old Dominion University, and a master of strategic studies from AU. He is also the author of "Uninhabited Air Vehicles for Psychological Operations—Leveraging Technology for PSYOP Beyond 2010," published in the April 2004 *Chronicles Online Journal* by Air University Press.

Col Robert S. McAllum serves as the principal assistant to the director, Developmental Test and Evaluation (DT&E), Office of the Undersecretary of Defense, Acquisition, Technology, and Logistics, at the Pentagon. In this job, Colonel McAllum provides oversight of operations within the directorate, including assessments of the DT&E efforts of each major defense acquisition program, assessments of the DT&E capabilities of the military departments, and the annual DT&E report to Congress. Colonel McAllum is a distinguished graduate of Officer Training School, USAF Pilot Training, F-16 training, and the USAF Test Pilot School. As an F-16 pilot and instructor, he has supported three deployments for Operation Southern Watch. As a test pilot, he participated in developmental test and evaluation of the F-16 and F-117 aircraft. Colonel McAllum has also served as lead USAF pilot for F-16 departure testing, including high angle of attack and departure recovery training for Air Force Materiel Command and Air Combat Command. His previous assignments include flight test branch chief for the F-16 System Program Office at Wright Patterson AFB, Ohio; commander of the 410th Flight Test Squadron in Palmdale, California; and deputy commander of the 49th Operations Group located at Holloman AFB, New Mexico. He has a graduate degree in mechanical engineering and a master of strategic studies from AU.

Abstract

This monograph describes how a failed state in 2030 may impact the United States and the global economy. It also identifies critical capabilities and technologies the US Air Force should have to respond to a failed state, especially one of vital interest to the United States and one on the cusp of a civil war.

Nation-states can fail for a myriad of reasons: cultural or religious conflict, a broken social contract between the government and the governed, a catastrophic natural disaster, financial collapse, war, and so forth. Nigeria with its vast oil wealth, large population, and strategic position in Africa and the global economy can, if it fails, disproportionately affect the United States and the global economy.

Nigeria, like many nations in Africa, gained independence from the United Kingdom in 1960. It is the most populous country in Africa and will have nearly 250 million people by 2030. In its relatively short modern history, Nigeria has survived five military coups as well as separatist and religious wars, is mired in an active armed insurgency, is suffering from disastrous ecological conditions in its Niger Delta region, and is fighting one of the modern world's worst legacies of political and economic corruption.

A nation with more than 350 ethnic groups, 250 languages, and three distinct religious affiliations—Christian, Islamic, and animist, Nigeria's 135 million people today are anything but homogenous. Of Nigeria's 36 states, 12 are Islamic and under the strong and growing influence of the Sokoto caliphate. While religious and ethnic violence are commonplace, the federal government has managed to strike a tenuous balance among the disparate religious and ethnic factions. With such demographics, Nigeria's failure would be akin to a piece of fine china dropped on a tile floor—it would simply shatter into potentially hundreds of pieces.

Poor investment in the nation's critical infrastructure and under-investment in health care, education, science, and technology are all leading to a "brain drain" in which Nigeria's most talented and educated citizens are leaving the country. This will leave a future Nigeria even poorer.

Nascent attempts to address electoral and governmental corruption are meeting with some success and hold promise for the future. Recent meetings between the president and insurgent groups may, over time, help resolve some of Nigeria's most intractable and dangerous internal conflicts. The population's disappointment in its government has not appreciably shaken its faith in democracy. Elections are and will likely remain an important part of Nigerian life as they, despite the odds, provide the people hope that they can make a difference as Nigeria struggles to succeed.

Nigeria becoming a failed state is not a foregone conclusion. However, should the oil-rich state of Nigeria, a nation likely to pro-

vide up to 25 percent of US light, sweet crude oil imports by 2030, fail, then the effect on the United States and the world economy would be too great to ignore. The threat that failure poses to a quarter billion Nigerians in terms of livelihood, security, and general way of life could quickly spread and cause a humanitarian disaster of previously unimagined proportions. Regardless of the extent of the humanitarian crisis unfolding in the wake of failure, the hard work to repair the damage could take two generations to make Nigeria viable again.

This failed-state scenario is one of four that comprised the *Blue Horizons* study in 2008. It explores the implications of what it would mean for the US Air Force to respond to a failed state in 2030, one with a large population that has resources vital to the Western world. The capabilities necessary to *detect* threats, *characterize* the environment, rapidly *deploy* and *protect* responders, and *sustain* operations long enough to create conditions for the indigenous people to resurrect their fallen nation are all issues that need to be explored. From these, this monograph helps the study team understand what types of technologies the US Air Force should pursue to enable it to lead and prevail against the challenges and surprises posed by future failed states.

Preface and Acknowledgments

In 1996 the Air Force initiated a major study effort under the direction of Gen Ronald Fogleman, the Air Force chief of staff. That study, *Air Force 2025*, looked 30 years into the future and made enormous contributions toward directing Air Force research and procurement to ready our forces for new challenges. The study brought together some of the brightest minds and most forward thinkers of the age, including Dr. Norman Augustine, president of Lockheed Martin; Alvin Toffler; James Cameron, who later directed the movie *Titanic*; Burt Rutan; Gen Bernard Schriever; Adm Bobby Inman; and Dr. Gene McCall and Dr. Dan Hastings, two chairmen of the Air Force Scientific Advisory Board.

In 2007 Gen T. Michael Moseley, then Air Force chief of staff, directed that a continuous series of future thinking and study efforts be undertaken, using AU as the "Air Force's think tank." This monograph is part of that ongoing effort. The authors collectively spent a year researching and traveling to ascertain what range of challenges a failed state may present in 20 to 30 years. The authors further examined what capabilities and technologies the US Air Force would require to effectively deal with failed states, especially one possessing and controlling a vital US interest.

The authors selected Nigeria, a representative nation, as a case study. Nigeria is a complex nation of many cultures, with a single-commodity petroleum-based economy and a history of rampant corruption, ethnic violence, and poor governance. Against a backdrop of other candidates for failure such as Pakistan, Nigeria is likely one of the most stressing and critical to the United States, given the importance its light, sweet crude exports have on the United States and the global economy.

The researchers created a scenario which plays out in the target year of 2030. They found it essential to explore many crosscutting issues, many examined by the United Nations, the Millennium Challenge Corporation, the Failed State Index, Transparency International, the World Bank, and the International Monetary Fund. This extensive exploration helped the researchers appreciate the character, nature, and complexities making modern Nigeria function. The researchers concluded that a plausible series of cascading failures in several of these crosscutting areas could cause the modern state of Nigeria to fail. To show how these events could combine to produce a devastating failure, the authors explored Nigeria's culture, political system, economy, and military. These efforts form much of this monograph.

The reader should know that the scenario presented in this monograph is not a forecast of a specific future but rather is structured to help the reader understand the magnitude and shape of Africa's largest economy and the impact it has on the world. As we

see in the 2009 global recession and credit crisis in today's globalized world, a failure in Nigeria, like the failure of almost any other nation, could have serious repercussions across the planet. Whether Nigeria is able to grow into a thriving, stable, and vibrant democracy or whether it becomes a failed state, the people of the United States must be ready to support Nigeria as a fellow member of the international system.

Chapter 1

Introduction

The last 100 years have been called the American Century.[1] It was a century notable for its global strife, which in the wake of two world wars saw the collapse of the Soviet Union and the birth of many new nations. While some were viable, many began with few resources and poor capital reserves. They were and are still at risk of failure. This monograph is about how the world, particularly the United States and its Air Force, will deal with the potential global consequences of a failed state whose principle export commodity is also of vital interest to the United States.

This monograph is part of a larger ongoing study called *Blue Horizons*. This study was commissioned by the former US Air Force chief of staff to provide "a new look at the future." Specifically, the chief of staff tasked the team to "provide a common understanding of future strategic and technological trends for Air Force leaders to make better decisions." The chief also sought to "confirm Air University as our [the Air Force's] in-house think tank" and to improve the relevance of Air Force education to the decision-making processes in Washington.[2]

Within the context of this 2008 study, four separate scenarios were examined. The best and brightest officers from the Air Force and the sister services were specially selected to participate during their one-year course of instruction at Air University (AU). These scenarios include a resurgent Russia, a peer China, a successful jihadist insurgency against a friendly state in the Middle East, and a failed state in a vital area of US interest.

Within these works, there is no magic, no fortune-telling, and no attempts at clairvoyant prognostication. These are written and intended to be used as academic works to inform decision makers and scholars about changes happening in the world. The discussion herein is a mix of cultural sociology, political science, economics, military science (sometimes called strategic studies), and international relations.

Why a "failed state" case study about Nigeria rather than a seemingly more dangerous state such as Pakistan? Pakistan clearly has many visible and obvious unstable, dangerous elements that are conspiring to threaten its viability as a nation-state. It has a long history of coups d'état; it is armed with nuclear weapons whose safety, security, and surety measures are not well known; it is fighting an active insurgency against various Taliban factions (an organization its own intelligence service created and, in some quarters, still supports); it is riddled with violent and ungoverned regions; it is locked in seemingly perpetual conflict with nuclear-armed India with which it has fought three major wars in the last

60 years; and some of the most dangerous and violent Islamic fundamentalist groups and individuals in the world reside within its borders. Its failure presents a clear and present danger to the region and the United States. Given the attention Pakistan has received both by the US government and the media, it is certainly worthy of study.

Less well known in the United States, but no less important, is Nigeria. Although not possessing nuclear weapons, Nigeria has the potential to dramatically affect the United States and the global economy if it fails. Africans are fond of saying: "As Nigeria goes, so goes Africa." Nigeria's geographic and political position in Africa, its single-commodity and soon-to-be-top-20 oil-rich economy, extraordinarily complex demographics, culture of corruption, poor and failing national and human infrastructure, long history of dangerously destabilizing religious and ethnic violence, repeated and potential for future military coups d'état, endemic disease, and its growing importance to the global and US economy present researchers with a myriad of vexing and intractable problems and challenges. Further complicating Nigeria's current history is the untimely death of reformist Pres. Umaru Yar'Adua and the political and religious violence his illness and death have sparked. Unlike Southwest Asia, Africa is often overlooked by political and military planners until a problem presents itself such as those found in Libya, Egypt, Somalia, Rwanda, Congo, Sudan, Liberia, Botswana, and Zimbabwe. While each African nation is important, none likely has the potential to dramatically alter the strategic environment both in Africa and the world. Thus, Nigeria is a tantalizing research challenge.

Methodology

This monograph is grounded in reputable scholarship and empirical research through actual site visits to the locations in question. The authors began with a search across the international relations, political economy, and cultural and military studies literature. Each enrolled in specialized coursework in international studies as well as instruction on conflict.

Each researcher formulated a series of questions relative to a section of this monograph. All traveled to conduct interviews with senior members of the Department of State, the national intelligence agencies, and the Department of Defense (DOD).[3] In addition, the team interviewed senior military and governmental leaders in Nigeria and other West African nations.

In addition to searching for answers to basic questions, the team engaged in a modified Delphi method of generating conclusions about the present and Nigeria's current direction.[4] These conclusions were then revetted against a series of experts and other study team members to adjust hypotheses and then reengaged in additional research and interviews to narrow the paper's perspective and focus.

For the sections on military capabilities, the researchers used a war-game methodology to add detail to the political, diplomatic, military, and technological materials gathered in the interviews, discussions, and site visits mentioned above. In these sessions, a formal Delphi method was used which included a broad cross-section of 22 senior DOD civilian and military strategic thinkers.[5] This scenario-based discussion involved several iterations of discussion wherein the researchers interacted with three opposing teams to generate a more complete picture of the challenges a failed Nigerian state might present by 2030.

Simultaneously with these events, members of the Air Force Strategic Planning Directorate as well as scientists from the Air Force Research Laboratories were collaborating on developing a list of present and technologically feasible future concepts or systems that the US Air Force either would have or could have in its inventory for the target year (2030) in question. Many of these concepts are systems resident in the Air Force today, such as the F-22 and C-17, which will likely still be in the inventory 22 years from now. Others are systems wherein the technologies required to field them are sufficiently developed and could be fielded within the next two decades.

The final aspect of this analysis involved using a value-focused-thinking quantitative model to formally evaluate the existing and potential future concepts for utility in a failed Nigeria with its current and projected systems.[6] This model was implemented under the direction of the AU Center for Strategy and Technology along with Innovative Decisions, Inc., whose members include some of those cited in the seminal works on this method in the footnotes below.

Overview

What happens when a modern nation-state fails? Does a single catastrophic event herald a nation's collapse, or is it the result of a series of failures in critical areas? Does each failure in a series produce a torrent that becomes a cascade resulting in rapid failure, or is it something that happens so slowly that few notice the failure until it is too late? What impact does the failure of an individual state have on other nations in the region or the world? More importantly, what will be required of other nations to respond to the failure of a nation-state now and in the future? If nations choose to respond, what characteristics of a failed state would compel the United States to respond?

Nigeria with its vast oil wealth, already large and growing population, religious and cultural diversity, history of weak governance, endemic corruption, poor health care and education systems, failing human service and industrial infrastructure, rising criminality, importance in West Africa and African security, and potential to disproportionately impact the global economy is a clear example of

a nation at risk of failure with an ensuing major impact on the rest of the world. It is a challenging case study candidate.

In a foreshadowing of what could happen to Nigeria within the next two decades, Nigeria is currently experiencing tremendous political instability and religious violence. Between November 2009 and April 2010, reformist Muslim president Umaru Yar'Adua traveled to Saudia Arabia to seek treatment for a severe heart condition and kidney problems. While he was gone for almost four months, the corruption-ridden government was hobbled by nagging and unsubstantiated reports of the president's death. Although President Yar'Adua returned to Nigeria to continue his recovery in a Nigerian hospital, rumors of his death and parliament's vote on 9 February 2010 to transfer presidential powers to Christian vice president Goodluck Jonathan sparked a new round of religious violence between already fractious Muslims and Christians, resulting in the death of hundreds and the internal displacement of thousands more.[7] It also prompted Nigeria's most active and dangerous insurgent groups, Movement for the Emancipation of the Niger Delta (MEND), to abandon the cease-fire brokered by President Yar'Adua and launch deadly attacks on critical oil infrastructure and to kidnap oil workers.

President Yar'Adua succumbed to his illness on 5 May 2010 at the age of 58. His successor, President Jonathan, continues to deal with the political and religious violence sparked by this forced transition. These significant events mask the grinding poverty and institutional corruption that is destroying the social contract between Nigeria's government and its 135 million people. With critical reforms on hold or in jeopardy, Nigeria's future is uncertain at best.

This monograph posits the conditions leading to the collapse of Nigerian governance and the rapid failure of the state in the year 2030. Its intent is descriptive rather than prescriptive. The authors begin by defining a failed state and then briefly examine Nigeria's history, culture, politics, governance, and military. The monograph then explores the various interconnected paths and conditions that cause Nigeria, when stressed and declining, to fail and shatter in 2030 as it begins its inexorable slide into civil war.

The central question which this monograph, like the others in the 2008 *Blue Horizons II* study, seeks to answer is, "Are there technologies and capabilities the US Air Force should invest in now to prepare itself to respond in 2030 to the challenges and surprises a failed state poses to the United States and the world?" To address this question, this book is broken into several parts.

Chapter 2 defines nation-state "failure" and briefly outlines a short history of Nigeria from before it became a modern state in 1960 through the study year 2008. This history provides a context for the evolution of the Nigerian state and identifies key vectors that could cause the state to fail in 2030.

In chapter 3, Col Douglas Jaquish addresses the schisms caused by Nigeria's social-cultural complexity. He argues Nigeria's rich social and cultural makeup offers hope for a successful future for Nigeria. However, deep fissures within its extraordinarily complex demographic and cultural makeup could become the fault lines that shatter the nation.

Chapter 4, authored by Col Mark DeLong, addresses Nigeria's political situation. The political discussion begins on a cautious note of hope for Nigeria's future, but this hope is bounded by the reality that institutional government corruption and a combination of religious and cultural factionalism is endemic and pervasive—the quality of Nigerian governance is already very poor. Left unchecked, these can ultimately corrode the social contract between the government and the people and bring about the failure of the Nigerian state.

In chapter 5, Col Daniel Gordon takes on the complexities of Nigeria's economy. He examines oil-rich Nigeria's "one commodity" petroleum economy. While the price of oil will likely continue to rise and fall and Nigeria's government normally budgets using a lower oil price as a basis for planning, the fact remains that Nigeria's oligarchs reap 80 percent of the oil profits. Colonel Gordon explores three economic scenarios—The Nightmare Continues, The Dream Is Realized, and The Dream Is Derailed—noting that a failure by the government to reign in corruption could derail Nigeria's economy and bring about failure of the state.

In chapter 6, Col Robert McAllum addresses Nigeria's military capabilities and technology while examining the role of Nigeria's military in politics and in preserving this ethnically complex nation. While Nigeria's military has had a relatively consistent constitutional role because it has overthrown five elected governments, the support it receives from the government and the people is inconsistent. A lack of support for the military or a highly fragmented Nigerian military in 2030 during a time of national crisis could also bring down Nigeria.

Chapter 7, authored by Col Christopher Kinnan, builds on the work of the other authors. From the team's research, he develops a sequence of events connecting the Nigeria of today to one potential future outcome. In this chapter, he defines what "day-to-day" Nigeria may look like in 2030 and presents a plausible scenario for a systemic collapse of governance and Nigeria's failure. Rather than a single cause, Colonel Kinnan describes multiple paths of cross-cutting social and cultural issues, infrastructure, the economy, the government, and the influence of outside elements that could combine and cause Nigeria to fracture and devolve into a potential multipartite civil war. If Nigeria shatters, what remains in its wake and its effect on the United States and the global economy are incalculable.

Chapter 8, also authored by Colonel Kinnan, identifies some desired key capabilities and technologies the US Air Force could use to respond to this scenario. These are also a set of capabilities that would apply to any failed state on the brink of civil war. These capabilities are important to future peace operations—peacekeeping, peace enforcement, peacemaking, and peace building—and have applicability that range far beyond the scenario painted here. Peace enforcement operations in a failed-state scenario in 2030 will require capabilities to *anticipate* impending threats, *understand* the operating environment and capabilities of the belligerents, *engage* with the appropriate force, *survive* in a highly stressed environment with a small operational and support footprint, rapidly *deploy* response forces and supplies to the operating area, and quickly *replenish* materiel and people in order to *sustain* forces.

Based on their analysis of the projected international strategic environment in 2030, the authors led the Delphi and quantitative study of US capabilities necessary to engage with Nigeria or almost any failed state in the future. This analysis forms the backbone of chapter 9. Here, a prioritized list of capabilities the US Air Force requires to adequately protect American interests in light of Nigeria's or almost any other failed state's capabilities is addressed. Similarly, the enabling technological advances required to provide the United States with these capabilities are also addressed.

In the end, the authors conclude that despite its best efforts, Nigeria has a long-term struggle ahead to remain a viable state, much less a top-20 economy. While its vast sweet-crude-oil wealth potentially provides Nigeria with great power and influence, the government's history of rampant corruption and inability and unwillingness to invest in its human service and industrial infrastructure and the people's welfare could doom it to failure. Given that Nigeria will likely account for more than 25 percent of US oil imports by 2030 and that other large economies depend on an uninterrupted flow of oil from Nigeria, a failure of this top-20 global economy in Africa will be a failure the United States cannot ignore.

As the American experiences in Somalia, Kosovo, Iraq, and Afghanistan have shown, intervention in any nation's internal affairs is fraught with extreme danger and, in the case of Nigeria, could subject the United States to charges that it is only doing so to protect "its oil." Thus, the decision to intervene in a failed state must be made by those with an understanding of the state and its diverse mix of political factions, ethnicities, religions, cultures, capabilities, and problems. Such understanding requires context, which is where this study begins.

Notes

(All notes appear in shortened form. For full details, see the appropriate entry in the bibliography.)

1. LaFeber, *American Century.*
2. Corley, memorandum of agreement.
3. There is nothing in this work, or any source used to compile this work, that is or draws upon classified material.
4. Dalkey and Helmer, "Experimental Application of the Delphi Method," 458–67. Dalkey and Helmer discuss the method in depth, as well as its origins in RAND's *Project DELPHI.*
5. Ibid.
6. The value-focused-thinking model closely parallels that used in the *Air Force 2025* study and is explained fully in Geis, "Toward Blue Horizons." For details on the *Air Force 2025* model itself, see Jackson et al., "Air Force 2025 Operational Analysis." For more on value-focused-thinking methodology, see Keeney and Raiffa, *Decision Making with Multiple Objectives*; Keeney, *Value-Focused Thinking*; Kirkwood, *Strategic Decision Making*; and Parnell et al., "Foundations 2025," 1336–50.
7. Tran, "President Umaru Yar'Adua returns to Nigeria."

Chapter 2

Nigeria in Context: Defining Failure

A state fails when it suffers "the loss of physical control of its territory; [its] monopoly on the legitimate use of force; the erosion of [its] legitimate authority to make collective decisions; an inability to provide reasonable public services; and the inability to interact with other states as a full member of the international community."[1] The 2007 Failed State Index, compiled by the *Fund for Peace and Foreign Policy* magazine, identified these indicators of a failed state and then ranked the nations of the world from those most to least likely to fail based on institutional corruption, criminality, the ability of a government to regulate the economy and collect taxes, internal displacement of citizens, sharp economic decline, group grievances, institutional discrimination, the emigration of the intelligentsia, and the state of the ecology.[2]

Nigeria, an oil-rich country with the largest population in Africa and a top-20 economy, was ranked 17th most likely to fail on the list of 148 countries studied for the 2007 Failed State Index.[3] The areas of greatest concern for Nigeria included uneven economic and social development, a failure to address group grievances as manifested through an active insurgency, and a perceived lack of government legitimacy.[4] While its oil wealth holds promise for the future of its people, Nigeria's potential failure holds danger for the global economy and could threaten the vital interests of many nations.

The Failed State Index researchers conclude that state failure, such as that considered possible in Nigeria, can be catastrophic based on a single incident or may be the result of a long period of decline in which the government can no longer govern or provide for its people. Even worse, states that do fail take a long time to recover. The World Bank surveyed states identified as failed in 1980 and found that they are still failed 28 years later. In fact, statistical analyses suggest that most of these states will likely require another 28 years, for a total of 56 years to fully recover.[5]

According to the *United States Commission on National Security*, state failure results in "an increase in the rise of suppressed nationalisms, ethnic or religious violence, humanitarian disasters, major catalytic regional crises, and the spread of dangerous weapons."[6] In short, failed states are a danger not only to their own people but also to their regional neighbors, and in a highly globalized world, they are a probable danger to the world economy and the vital interests of other nations.

Nigeria's History—Foundations for Failure

Two main facets of Nigeria's history bear directly on its tenuous status as a functioning nation capable of effective governance—the British colonization of Nigeria and the spread of Islam.[7] Like other countries in Africa, Nigeria was once a British colony. Its current system of government and the present racial, ethnic, and religious conflicts are, to an extent, the result of its colonial past.

Nigeria has the sixth largest Muslim population in the world.[8] Moreover, it is the largest country in Africa, with an almost equal balance of Muslims and Christians—a balance that will soon reach a tipping point because of the larger population growth in the Islamic north.[9]

Pre-Nigerian Nation

Prior to the arrival of the earliest European settlers, the area now called Nigeria was the home to a number of separate and distinct societies. The largest of these included the Kingdom of Borno in the northeast; the city-states of Katsina, Kano, Zaria, and Gobir in the north-central part of modern Nigeria; the Yoruba Kingdoms of Ife, Oya, and Ijebu in the southwestern regions; and the Igbo region in the southeast. Between these various regions, an extensive trading network developed, which stretched across the Sahara.[10]

The people of the region have long-standing roots that predate the drawing of Nigeria's modern borders. Despite widespread trading between these regions, the area now known as Nigeria has a history of conflict and instability. This background has been made potentially more unstable by developments in the postcolonial era.

In the late 1790s through the early 1800s, the northern kingdoms began resisting the establishment of a religion-dictated set of laws. The idea of religious rule began to spread to the region as Islam continued its westward expansion from the Middle East. The resistance of these kingdoms set the stage for an Islamic holy war, in which the Sokoto caliphate, in an effort to create stability, end violence, and establish Islamic justice, brought the northern sections of present-day Nigeria under a single Islamic government in 1808.[11] The caliphate reached its peak when it eventually governed 30 emirates from modern Burkina Faso to Cameroon in the mid-1800s.[12]

The North was not the only part of Nigeria experiencing unrest in the early 1800s. In 1817 the Yoruba (southwestern) provinces were caught up in civil wars over issues surrounding trade roots, the slave trade, and the right to populate inland areas.[13]

Shortly thereafter, in part as a result of pressure from missionaries and others, Britain began to work to eradicate the slave trade along the African coast. These efforts began in Lagos and then moved eastward along the African coast. The decision to eradicate

the slave trade led to a concomitant decision to occupy and maintain control over the African coastal regions. Catholic and Protestant missionaries followed on the heels of British forces. The religious orders cooperated to divide up the territory in order to convert as many of the indigenous people to Christianity as they could with their limited resources. This process of gradually expanding both British influence and the influence of the Christian faith would forever change the southern part of Nigeria.

The British occupation of these lands initially resulted in the granting of trading rights to a large territory encompassing much of Nigeria to the Royal Niger Company. The company exercised control over the territory in exchange for a monopoly on trading rights for goods sold from Nigeria to the rest of the British Empire.

While the boundaries of this region were expanded several times, usually by force, they did not quite encompass all of present-day Nigeria. To achieve that objective, the jurisdiction of the Royal Niger Company was deemed insufficient. In 1900, after compensating the Royal Niger Company for the loss of its property, the British established a formal British governmental protectorate with Sir Frederick Lugard as the high commissioner of northern Nigeria.[14] This change allowed Britain to bring its full power to bear on uniting the lands of Nigeria as a single colony (see figure 1).
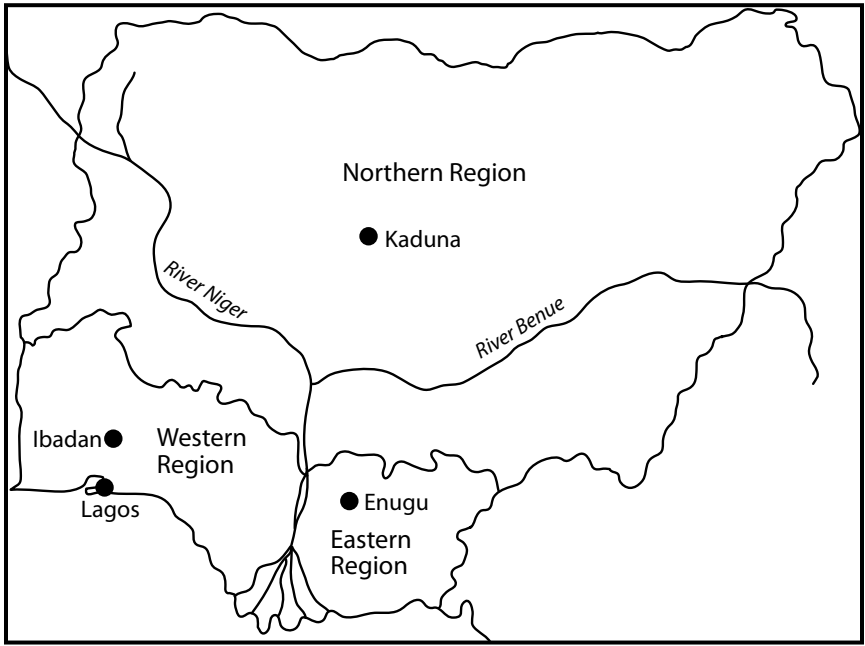

Figure 1. Colonial Nigeria. A historical map of Nigeria showing three federal regions created by British colonial rule. (*Reprinted from* Association of Nigerian Scholars for Dialogue, *Wilberforce Conference on Nigerian Federalism 1997*, ed. Peter P. Ekeh, www.waado.org/nigerian_scholars/archive/pubs/wilber8.html.)

Among Lugard's first challenges was to bring the Sokoto caliphate under British control. This was initially achieved by force, but Lugard's governance after the conflicts was considered highly successful, largely because he generally applied indirect rule, allowing the former rulers (the emirs) to enjoy some autonomy. To insure against major uprisings, Lugard reduced the number of small fiefdoms in the emirates, thus reducing the wealth and patronage provided to the emirs, which curbed their influence and power substantially. Further, the emirs were made formally subservient to the British crown. Nonetheless, Lugard permitted the continuation of Shar'ia law in this region, although Shar'ia law was not applied to Christians living in the Sokoto emirates.[15] While this use of indirect rule kept relative peace in the north, it had the effect of perpetuating existing divisions and set the stage for a later religious bifurcation of the country. By 1914, during his tenure as governor general, Lugard succeeded in unifying Nigeria.

In 1919 Lugard's successor, Hugh Clifford, took charge. His leadership style was nearly the opposite of his predecessor. Whereas Lugard preferred to allow the various ethnic groups to retain some autonomy, Clifford sought to modernize Nigeria and bring it into the Western world. Clifford's efforts had the dual effect of alienating some while producing yet a new culture in the south—one more Western and increasingly industrial.[16]

In the efforts to civilize the Nigerian delta, Clifford introduced cultural influences that would eventually serve to further split the Nigerian populace. Clifford scaled back the influence of the Sokoto caliphate, and Christianity, which had first taken root in the country during the slave trade, began to rapidly expand in the south.[17] Complicating this split were the indigenous people who lived in southeastern Nigeria—the remnants of the kingdom of Igbo. Upon first encountering the British several years after the colony was formally established, the Igbo were forced to pay taxes to support the British crown. The Igbo reacted with animosity, which placed them at odds with their neighbors to the north and west. This simmering animosity against the British lingered in this region of Nigeria.

Thus, the initial result of British colonialism was the exacerbation of the already considerable ethnic and cultural differences spanning a collection of people with divergent histories and traditions. The newly created "Nigeria" was composed of diverse people with no common sense of nationality. Moreover, due to the types of leadership exercised by Lugard and Clifford, the dividing lines between the Islamic emirates and Christian provinces were reinforced. The north was generally left to practice its Islamic agrarian traditions[18] while the south was modernized and opened to commercial trade with ports, roads, and railroads.[19] Yet even the south was split between its eastern and western parts (see figure 2).[20]

From the period of 1940 to 1960, Britain continually tried to unify these diverse regions (see figure 3). The result of its efforts
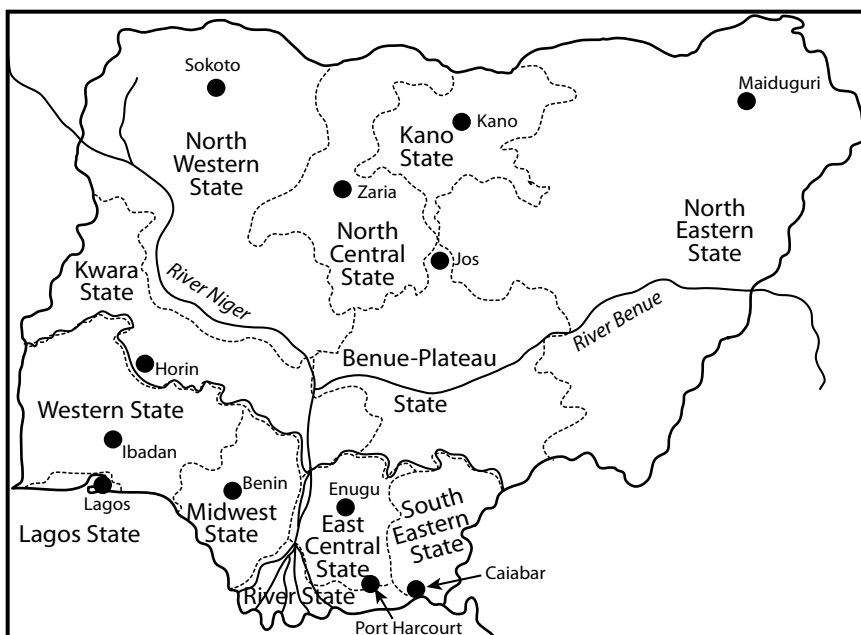
Figure 2. Twelve federal states of Nigeria. A historical map of Nigeria showing 12 federal states created by federal military government on the eve of civil war. (*Reprinted from* Association of Nigerian Scholars for Dialogue, *Wilberforce Conference on Nigerian Federalism 1997*, ed. Peter P. Ekeh, www.waado.org/nigerian _scholars/archive/pubs/wilber8.html.)

still stands in some measure today with the Hausa-Fulani (northern), Yoruba (western), and Igbo (eastern) regions in fierce political and economic competition.[21] Indeed, today most Nigerians continue to identify themselves by their religion before identifying themselves as being Nigerian or African.[22]

Today, Nigeria is composed of 36 states (see figure 4), many of which trace their history as described above. As a result of the prior existence of city-states and the uneven effects of colonization, there are further splits embedded within states as well.[23] In fact, within modern Nigeria there are over 350 distinct ethnic groups.[24] The fault lines among these individual states, religions, and ethnicities, as well as between the north and south, are the basis of sectarian violence, which is becoming increasingly common across the country.[25] This violence was a prime factor in the original Nigerian governments' inability to fully govern the region.

The Nascent State (1960–99)

Britain granted Nigeria independence in 1960 after a set of parliamentary elections in late 1959. In this vote, the parties representing the Muslim north earned 142 seats in the 312-seat assem-
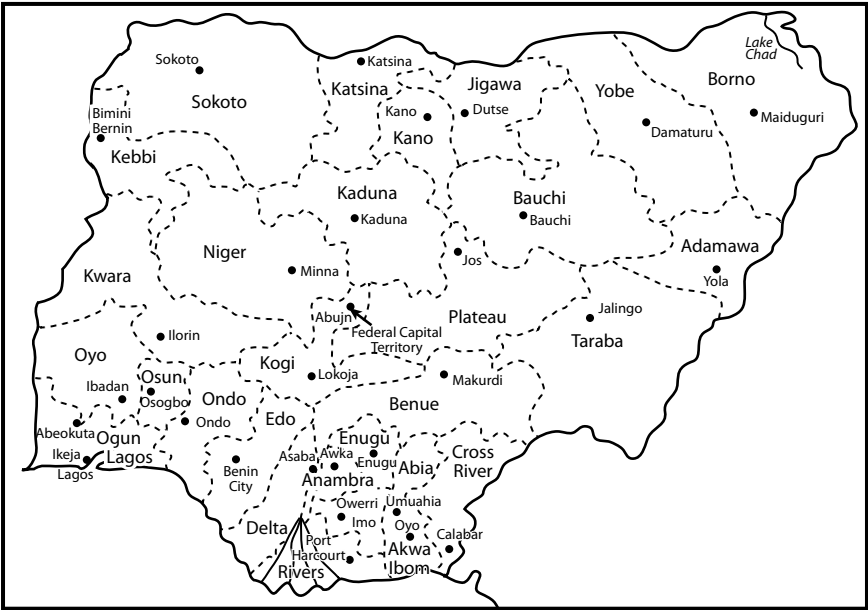
Figure 3. States of Nigeria. A historical map of Nigeria showing 36 federal states created by a series of federal military governments through military decrees. (*Reprinted from* Association of Nigerian Scholars for Dialogue, *Wilberforce Conference on Nigerian Federalism 1997*, ed. Peter P. Ekeh, www.waado.org/nigerian_scholars/archive/pubs/wilber8.html.)

Figure 4. 36 states of modern Nigeria. Courtesy of the United Nations Development Program.

14

bly, but no political party achieved a voting majority. As the British departed, this newly elected parliament was in place, as was its newly elected leader Nnamdi Azikiwe. Azikiwe became president, replacing the colonial governor.

As none of the parties had a majority, the federal legislature was run by a coalition government of Muslims and Christians. Almost immediately, however, periodic crises and charges of corruption were levied at politicians of various factions.[26] This mistrust grew and led to a series of challenges, the most serious being challenges to the 1963 national census. The census would have been used to craft election laws and, more importantly, determine how revenues would be distributed throughout the country.

The first postindependence elections in 1964 led to continued charges of political unfairness and boycotts of the electoral process by provinces in the east. Even after a second set of elections was held in those regions which initially boycotted the electoral process, the major governing parties were barely speaking to each other.

The army launched a coup d'état in early 1966, assassinating key party leaders in all sectors of the nation. In the ensuing violence, at least 2,000 Nigerians died.[27] This was followed by a countercoup in July 1966 when the northern territories attempted to overthrow the exiting military leader. These events created the two factions that led to the civil war of 1967—a war in which up to 100,000 died in combat and up to one million more died of starvation.[28] In the end, Maj Gen Yakubu Gowon, the military leader, assumed control of Nigeria in late 1969.

For a time, General Gowon was able to run the country, but as political restrictions were lifted, demonstrations increased, and political activists began to incite unrest. His attempt to update the 1963 census in 1973 was unsuccessful, as most ethnic groups were fearful of the results and battled census workers to ensure it was not completed fairly.[29] Corruption became endemic, which generated inefficiencies in the economy. At one point, the Port of Lagos was clogged with ships filled with goods to unload; the backlog to unload some of these ships stretched to 15 months. As the country descended once more toward chaos, General Gowon was deposed in a bloodless coup d'état in 1975.[30]

General Gowon was replaced by Brig Gen Murtala Muhammad, whose first actions were to dismiss 10,000 governmental civil servants for inefficiency and corruption and demobilize 100,000 from the military ranks. General Muhammad scrapped the 1973 census, deeming it an abject failure, leaving the 1963 population count as the official survey used for determining national assembly and senate apportionment. He reset the transition to civilian government with a target date of early 1976, which earned him respect among the people. However, his reign was short-lived. He was assassinated in February of that year, after only seven months in office.

Military leader Lt Gen Olusegun Obasanjo assumed the national leadership in the intervening years leading up to the 1979 elections. General Obasanjo presided over a period of relative economic prosperity, partly due to increased oil revenues, and led the nation back toward democracy.[31] Nigeria adopted a constitution based closely on that of the United States. Nigeria elected a new president, a house of representatives, and a senate, all of which took office on 1 October 1979.

These elections, like those of the 1960s, led to a coalition government, as no party garnered a majority of the vote. Disagreements between the parties were substantial. In order to placate party opponents, massive spending on federal projects ensued, which increased the Nigerian national debt and drove down the value of the Nigerian currency. As a result of its devalued currency, Nigeria's economy began to decline. A drop in oil prices added to the misery.[32]

By the time the next round of elections occurred in 1983, corruption and a blatant disregard for democratic processes were corrosively endemic in the federal government, and political unrest was growing.[33] Despite presiding over a precipitous decline in the Nigerian economy and being highly unpopular, the ruling party claimed nearly three-quarters of the seats in the house and senate, all but confirming a rigged vote count.

The military seized power again in 1983 as there was no domestic confidence in the civilian leadership. The new leader was Maj Gen Muhammadu Buhari, who worked to purge the government of corruption, bring federal spending back under control, and stabilize the value of the Nigerian currency, which was plummeting on international markets. General Buhari's austerity programs to curtail Nigerian debt were unpopular, and many believed he was out of touch.[34] In the end, Maj Gen Ibraham Babangida overthrew General Buhari in a coup d'état in 1985.

The Babangida regime was faced with the same economic crisis that made the Buhari leadership unpopular. Austerity measures were necessary to entice the International Monetary Fund to offer a bailout plan worth $4.3 billion. In addition to beginning to restructure the economy, General Babangida appointed a commission in 1986 to direct the transition back to civilian rule. Although he did not agree with many of the commission's recommendations, he implemented them, including a commission recommendation of the further division of Nigeria, creating two more states in 1987.

However, General Babangida wanted to retain his power. While the initial timetable called for new elections before 1990, General Babangida postponed them until 1992. When the presidential election was held, confusion on the date of voting led to an unusually low participation rate of around 30 percent. The results were nullified by General Babangida, who sought to remain in power as interim president until a new president could be named via yet another set of elections. The combination of these events led to

public dissatisfaction. As a result, he was overthrown by yet another coup d'état, which brought Chief Ernest Shonekan to power. After two months, the chief stepped aside, giving power to Vice President Sani Abacha.[35]

Abacha immediately dissolved all organizations of state governance and installed his own regime. He ruled as a corrupt tyrant, often killing political opponents and pocketing national oil revenues. By the time he died in office, some estimates indicate he may have stolen over $3 billion.[36] In fact, Abacha has been listed as the fourth most corrupt leader in world history.[37] Abacha remained president until his 1998 death due to a possible heart attack. As an autopsy was never performed, it is unknown whether the death was by natural causes or assassination by his military advisors in order to effect another coup d'état.

In the wake of Abacha's death, army general Abdulsalami Abubakar assumed the role of head of state. He immediately freed one past leader, General Obasanjo, from prison and scheduled new national elections. General Obasanjo won the election in 1999 and remained president until April 2007.[38] While president, Obasanjo campaigned for a constitutional amendment to run for a third term; the amendment was never passed, so he stepped down after eight years as president. He was succeeded by his vice president, Shehu Mus Yar'Adua.

This early history of Nigeria tells much about the nation's stability, its culture, and its corruption. These are crucial to understanding how Nigeria may evolve over the next two to three decades. This timeline shows that there is almost no history or tradition of continuity of leadership in Nigeria. Further, nearly every regime in the country's history has been, by Western standards, corrupt. Money is siphoned from major industries by those in power, sometimes at the rate of hundreds of millions of dollars per year. The inability of the Nigerian government to agree on a census for over 40 years undermines the legitimacy of the electoral process and thus the legitimacy of Nigerian governance.

In short, Nigeria is a country that has been governmentally unstable. Ruled by corrupt elites who have shown an enormous reluctance to relinquish power, sometimes unto death, it has no history of majority governance or even national agreement on any major issue. Analogous to a plate of china, Nigeria remains crisscrossed by a myriad of stress cracks and fissures that are the result of the ethnic and religious cleavages spanning the country. If sufficiently stressed, this china plate will split or even shatter. What is frightening is that, stressed in the wrong manner, Nigeria is a nation-state which could conceivably splinter into dozens or even hundreds of independent pieces.

The Nigerian State Today

Despite a questionable election in 2007, President Yar'Adua rapidly implemented his reform initiatives. These include developing sufficient and adequate power and energy supplies, improving food security and agricultural production, and diversifying the economy. The industrial-based economy emphasizes creating wealth, improving the transportation sector by building modern road and rail networks, promoting land reforms that will make unused land productive for commercial farming, protecting national security, and emphasizing security in the Niger Delta region. Another initiative is investing in twofold reforms in the educational sector to raise Nigeria to the minimum acceptable international standards of education for all by developing a plan for teaching science and technology skills.[39]

In 2008 Nigerians began to see some results in land reform, but they appear to reserve judgment on how well the reforms will work. In October 2009, President Yar'Adua met with the leader of the Movement for the Emancipation of the Niger Delta (MEND) and representatives of insurgent groups within Nigeria in an effort to make good on his promise to improve security in the Niger Delta region.[40] President Yar'Adua's benchmark for assessing the effectiveness of his seven reforms, most of which will bear fruit slowly, is 2015.

Notes

1. "Failed States Index 2007," *Fund for Peace and Foreign Policy.*
2. Ibid.
3. Ibid.
4. Ibid.
5. Wyler, *Weak and Failing States*, 8.
6. Commission on National Security, *New World Coming*, 6.
7. Library of Congress, *Country Profile: Nigeria*, 1.
8. Paden, "Nigeria."
9. Ibid.
10. Institute for Security Studies, *Nigeria: History and Politics.*
11. The boundaries of this caliphate extended both east and west well beyond the boundaries of present-day Nigeria but were limited to the northern sections of what is now Nigeria. Library of Congress, *Country Profile: Nigeria*, 1, 21.
12. Ibid., 3.
13. Ibid., 22.
14. Ibid., 28.
15. Paden, "Nigeria."
16. Library of Congress, *Country Profile: Nigeria*, 4.
17. Ibid., 4, 47.
18. Paden, "Nigeria."
19. Library of Congress, *Country Study: Nigeria.*
20. Library of Congress, *Country Study: Nigeria, Frederick Lugard.*
21. Suberu, *Federalism and Ethnic Conflict in Nigeria*, 20.
22. Ruby and Shah, "Nigeria's Presidential Election."
23. Ibid., 2.
24. Dagne, *Nigeria in Political Transition*, 1.

25. Danan and Hunt, *Mixed Blessings*, 30.

26. This mistrust boiled over into actual fights within some of the regional (state) legislatures at times. See Library of Congress, *Country Profile: Nigeria*.

27. Sarkees, "The Correlates of War Data on War," 123–44.

28. Ibid.

29. Anene, "Military Elites and Democratization," 230–45.

30. Library of Congress, *Country Profile: Nigeria*, 40–41.

31. Suberu, *Federalism and Ethnic Conflict in Nigeria*, 64.

32. Ibid.

33. Falola and Heaton, *History of Nigeria*, 208–9.

34. Ibid., 212–16.

35. BBC, "Nigeria: A History of Coups."

36. Falola and Heaton, *History of Nigeria*, 234.

37. Hodess, "Introduction to Political Corruption," 13.

38. Lewis, *Performance and Legitimacy in Nigeria's New Democracy*. There is ample evidence that the elections of Obasanjo in 2003 and Yar'Adua in 2007 were fraudulent. However, given the history of Nigerian coups, the majority of the people in Nigeria prefer a civilian leadership to another military takeover, even if the means by which the civilians are in power is not wholly legitimate.

39. Appendix A, "Yar'Adua's Seven-Point Agenda."

40. "Yar'Adua Meets with MEND's Aaron Team," *Times of Nigeria*. This meeting included President Yar'Adua; Nobel Laureate Professor Wole Soyinka; Henry Okah, presumed leader of MEND; and others comprising "the Aaron Team." The Aaron Team is a group of negotiators established by MEND and led by the former chief of general staff, Vice Adm Okhai Mike Akhigbe. Its purpose is to establish a dialogue with the government and work to bring the Niger Delta crisis to a mutually acceptable end. Based on a statement released by MEND confirming the meeting, the group heralded the meeting as "the beginning of serious, meaningful dialogue between MEND and the Nigerian government to deal with and resolve root issues that have long been swept under the carpet" (ibid.).

Chapter 3

The Social Schisms of Nigeria

Col Douglas W. Jaquish

Nigeria is a mosaic of dramatic demographic forces fused together by the early twentieth century machinations of the British Empire. Brought under colonial rule in the late nineteenth century, Nigeria relished the independence it received in 1960. Invigorated by the discovery of oil in 1956, the fledgling nation hoped for a bright future. Instead, the young state fractured through corruption and took the next half century to achieve some semblance of stable self-governance.

Demographic Fissures

Nigeria is comprised of approximately 350 ethnic groups, more than any other nation on the vast African continent.[1] Four main groups make up the majority of this population: Hausa and Fulani (29 percent), Yoruba (21 percent), and Igbo (18 percent).[2] These and the next eight significant population groups of Kanuri, Ibibio, Tiv, Ijaw, Nupe, Anang, Efik, and Kalbari bring with them distinct languages. While English stands as Nigeria's official language, three other market languages—Yoruba, Igbo, and Hausa—also tie the people together politically and economically.[3]

Thrown into this linguistic milieu is a mix of ethnic, geographical, and historical diversity that has often boiled over into open, genocidal conflict. This was particularly evident in the Igbo uprising of the late 1960s, a civil war that cost roughly 1.1 million Nigerian lives.[4] As recently as the year 2000, more than 1,900 Nigerians died in clashes between Muslims and Christians in the seam states.[5] This highlights a deep religious divide that continues to trouble Nigeria.

Religion is often the primary defining factor in Nigeria for economic, social justice, and political reasons. Nigeria has the greatest number of people in any single African nation, as well as the continent's largest and the world's sixth largest Muslim population.[6] Most of Nigeria's Muslims, who currently account for roughly 50 percent (and rapidly growing) of the population,[7] live in the 14 northern states; nearly 40 percent of Nigerians profess the Christian faith and dwell in the 22 southern states; and the last 10 percent of the population professes syncretism or other indigenous (animist) beliefs and are scattered across Nigeria.[8]

Consider the vastness of the country—nearly one out of every four sub-Saharan Africans is Nigerian.[9] According to a recent report from the Washington, DC–based Center for New American Se-

curity, violent civil conflict remains a significant possibility in Nigeria. Religion is a key factor worthy of attention by the international community and the US government in particular.[10]

Culture is also a strong force in Nigerian life. "For most Nigerians, social life unfolds within an ethnic context, and this tie to one's group is manifest in a proliferation of ethnic states, political parties, demands for teaching in local languages and various other ethnic-cultural organizations."[11] Nigeria experiences ongoing communal violence between Christians and Muslims and among its various ethnic groups. At least 800,000 people have been driven from their homes since 2003 because of these clashes.[12]

Some of the most violent disputes have been between Muslim ethnic Fulani herders and Christian ethnic Mambila farmers over grazing lands in the eastern part of the country.[13] A similar conflict brewed at a lower level in the north between farmers and herders of different religions, several were killed, prompting the dispatch of hundreds of police officers to the area.[14]

In the Niger Delta region, insurgent conflict persists over resource allocation and oil profits—such conflict is defined as criminality by the Nigerian government. Asari Dokubo, leader of the Niger Delta People's Volunteer Force, was arrested in September 2004 after he called for the disintegration of the Nigerian state. His detainment brought a temporary moratorium to all insurgency activities in the Delta but indicated strong civil sentiment with respect to control of oil resources and self-determination.[15] Intercommunal violence provoked a military crackdown that destroyed the Rivers State town of Odiama in the Niger Delta.[16]

Ethnic, regional, and community ties also define politics in Nigeria.[17] Patronage is a strong dynamic in the culture, where candidates who "buy off" the most constituents generally win elections.[18] This perversion of governance flows from Nigeria's corrupt society, culture, and precolonial history. It also inflames growing ethnic nationalism across the country. American anthropologist and author Daniel Jordan Smith postulates, "The prominence of corruption as both a justification for nationalist movements and a critique to undermine them illustrates both the extent of discontent about corruption and Nigerians' cynicism that anyone can rise above it."[19]

Nigerians are a proud people whose nationalism runs as deep as the corruption woven in the fabric of their living and trade. Driving this rampant corruption is a petroleum-based economy, a combination which affords wealth to the few in power, namely the oligarchs. Even as annual petroleum revenues exceed $90 billion, the vast majority of Nigerians live on less than two dollars a day, with many surviving on less than one dollar a day.[20] Tribal and especially political-based patronage networks providing power to chosen "haves" exacerbate economic disparity.[21] Alongside religious beliefs, patronage networks driven by a culture of corruption define

the way of life for the vast majority of Nigerians and are a pretext for internal conflict.

The Rise of Information

Enter the twenty-first century with the sprawl of information and the spread of information technologies. Africa, with its lack of infrastructure, is ripe for growth in an industry that constantly seeks new markets. One-hundred-dollar laptops, wireless cell phones, and the Internet will grant access to seemingly bottomless wells of digital information to anyone on the network.[22] Thomas Freidman describes this phenomenon simply by the title of his 2005 book, *The World Is Flat*. Information technology was, is, and will likely remain a key flattening force but only in the context of conveniently aligned events in the developed world.

Among these were the fall of the Berlin Wall, huge intellectual capital investments within the population of India, and the global fiber optic networks laid during the "dot-com" period of the late 1990s.[23] But the present-day surge in information technology alone does not create vast social and cultural change in all countries. It operates primarily in societies that are poised for that change. Lacking a robust communications hardware infrastructure, Nigeria is ripe for the revolution that this wireless generation of information technology promises.

This rise of information is also taking on the traditional power of the media once governed by states. Internet blogs such as Global Voices Online offer dialogue and expression and were an open forum for many Nigerians in last year's elections. "New information and communication tools such as wikis, blogs, 'tweets,' podcasts, and social networking sites have the potential to transform election reporting, campaigning, monitoring, and political discussions all over the world."[24] Nigeria provides a unique cyberspace outlet in this global market of information and ideas in Africa.

The United Nations Development Program (UNDP) administrator Kemal Dervis stated, "Globalization has fundamentally altered the world economy, creating winners and losers. Reducing inequalities both within and between countries, and building a more inclusive globalization is the most important development challenge of our time."[25] Information technology is both a powerful flattener and an effective means to unravel the inequalities that create social disparity in Nigeria. But it also is a double-edged sword. Knowledge gained through information technology brings power to the people, the power of transparency, and has the potential to generate unrest among unequals that compete for an interest in Nigeria's poorly distributed oil wealth.

Pandemics and the Youth Bulge

A major health crisis faces Nigeria in preventable diseases, namely human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) and malaria. World Health Organization (WHO) statistics from 2007 show that malaria kills four out of 10 children—over 270,000 per year—with most dying under the age of five.[26] According to Nigeria's National Ministry of Health, infected children will suffer two to four malaria illnesses each year, and 70 percent of pregnant women are infected and suffer from the disease.[27]

Nigeria's central government has made only low levels of investment and achievement in health and education services over the past three decades. The HIV epidemic, a retrovirus that causes AIDS, is a national crisis pervading every segment of society. HIV infection rates have surpassed 5 percent prevalence in the population—the rate of infection is currently projected only to worsen and surpass 5 percent prevalence.

Over five million Nigerians are HIV positive. Most do not have access to drugs to treat the infection and, therefore, will or have developed AIDS. Since the infection is spread largely through sexual contact in the Nigerian heterosexual population, it directly threatens what is considered the "prime age" workforce. Also it will, without aggressive treatment of infected individuals, harm economic productivity and lead to millions of orphans in the next decade. Today, one out of 10 families in Nigeria houses a disease orphan, with up to three or four orphans per household in higher prevalence states.[28]

Africa is experiencing what the United Nation's (UN) Global Environment Outlook report calls "demographic transition" (see figure 5).[29] Pandemics are having a key impact on this transition for Africa as a whole and, specifically, Nigerians. Nigeria's youth are rapidly becoming the predominant age bracket, and this has tremendous national and strategic implications. The US Agency for International Development (USAID) posts several disturbing statistics for Nigeria:

- Half of the country is comprised of youths under the age of 15.

- A large population and high fertility have led to over five million births a year.

- Underweight and under-age-five mortality rates are worse than the average in both developing countries and sub-Saharan Africa.

- Infant and maternal mortality rates are 90 percent higher than in developing countries.[30]

The preponderance of these infant and maternal deaths occurs in Nigeria's predominantly Muslim northern states.[31] This persistent rift between north and south is a potential driver for future conflict between Nigeria's "haves" and "have-nots." Demographic

Source: GEO Data Portal, compiled from UNPD 2007

Figure 5. Demographic transition. (*Reprinted from* United Nations Environment Programme, Report of *Global Environment Outlook [GEO] 4: Environment for Development*, [Progress Press Limited: Valetta, Malta, December 2007].)

pressures in Nigeria are driven by its expanding population. As shown in figure 6, Africa, like Asia, is growing in population whereas the rest of the world is not.[32]

This disproportionate population growth combined with social and economic disparity is a potential danger to stability in Nigeria and the surrounding region.

Nigeria combines a high birthrate of 5.6 children with the second-order effect of the HIV pandemic, namely increased adult mortality, which in turn creates a youth population that is increasing as a percentage of the overall population.[33] This looming "youth bulge" brings with it many unique challenges. German anthropologist Gunnar Heinsohn describes them this way:

> A result of rapid population growth, a youth bulge happens when 30 to 40 percent of a nation's males are between the ages of 15 and 29. Even if these young men are well nourished and have good housing and education, their numbers grow much faster than the economy can provide them with career opportunities. Many don't have jobs, and don't have places in society. When
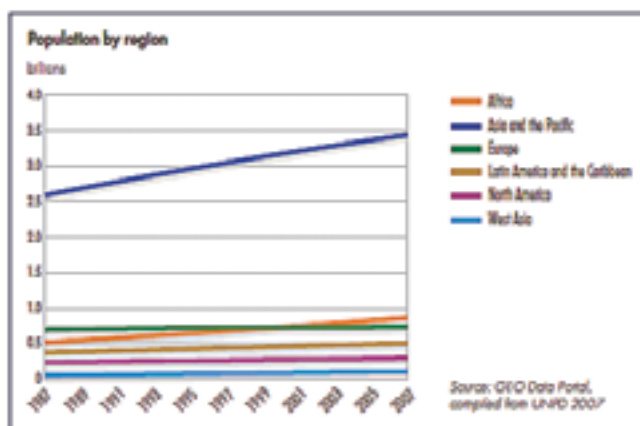
Figure 6. Population by region. (*Reprinted from* the United Nations Environment Programme, Report of *GEO 4: Environment for Development* [Progress Press Limited: Valetta, Malta, December 2007].)

> so many young men compete for the few places available, they become frustrated, angry, and violent. They [enlist] quite easily into radical groups and terror organizations.[34]

Unemployed and underemployed young adults can rapidly destabilize a society with their restive energy. They are quick to join nationalistic movements or are quite often easy targets for radical religious movements. In Heinsohn's view, this human dynamic equals "demographic armament," an arsenal of people standing against weak governments and even other nations who are facing the "demographic capitulation" of negative population growth rates.[35] The youth bulge emerging in Nigeria may swap roles from productive laborers to disaffected rebels in the next two decades, which then may place enormous stresses on the fissures and cracks dividing Nigerian society.

Exacerbating the prospects for the employment of these young people is the problem of the "brain drain" that persists in Nigeria. Intellectuals and many health care professionals continue to emigrate to the United States and Europe.[36] In early 2006, WHO identified Nigeria as one of 30 countries across the globe with critical shortages of health service providers.[37]

The loss of intellectuals reduces educational opportunities for the young and, in the long term, their chance of learning a trade and becoming self-sufficient. It also harms governance on a number of levels by depriving the nation of educated people who can lead it and further develop and integrate Nigeria into the global economy. This loss of health care workers and intellectuals will cause the current demographic trends to continue and limit the prospects for economic growth that would help Nigeria remain stable, especially as young men reach their peak employment years.

26

Corruption and Criminality

Corruption holds a prominent place in Nigerian trade and daily living. With respect to Nigeria's *culture of corruption*, Smith states, "Discontent about corruption, frustration over perceived marginalization, and aspirations for a more equal and just society are expressed in religious language. This is among the most significant and potentially explosive trends in contemporary Nigerian society,"[38] and leaves the general population "interpreting corruption and inequality in a language that highlights ethnic discrimination."[39]

More than anything, corruption drives a criminal element prominent in Nigeria's lucrative oil industry. A militant sector classified as "criminality" by the government emerged in the Niger Delta region with an agenda to highlight environmental abuses in the Delta.[40] MEND, a growing and powerful opposition force to Nigeria's military since 2005, is the most prominent among these groups. MEND is credited for reducing Nigeria's oil production by as much as 25 percent in recent years and by 50 percent capacity for brief periods in 2009.[41]

The combined effort of criminality in the Delta and piracy in the Gulf of Guinea has led to the loss of 10 percent of Nigeria's $92 billion oil industry as of 2007; oil business revenues in mid-2009 were running at around $40 billion per year.[42] These revenues undoubtedly strengthen forces both inside and outside Nigeria that keep the state and region unstable. In addition, unregulated oil production in the Delta has led to a local ecological crisis of acid rain, air pollution, and fouled waters that has limited the Niger Delta population's access to clean drinking water and stable fishing stocks.[43]

Corruption in Nigeria is not just a domestic issue. Transnational crime has germinated in Nigeria over the past four decades. Louise Shelley argues that "the growth of transnational crime is inevitable because of the rise in regional conflicts, decline in border controls, greater international mobility of goods and people, and the growing economic disparities between developed and developing countries."[44] These forces of instability—declining oil production, endemic corruption, and rising criminality—plague Nigeria and could define a path to state failure.

The corruption in Nigeria reaches to the highest levels of government and has the potential to be a major catalyst in state failure. The Nigerian government initiated efforts to create a perception that it is addressing this corruption. It established the Nigerian Economic and Financial Crimes Commission (EFCC). The EFCC has the reputation of being the president's storefront in that it serves to protect his financial exploits and target people of interest.[45] This reputation undermines government legitimacy. An Internet poll conducted by *The Fund for Peace* asked what single factor causes state failure. The overwhelming response was "corruption," appearing three times more often than that of the next category, "lack

of basic education."[46] Corruption challenges any notion of sound governance, effectively undermining public trust and confidence.

Nigeria's persistent poverty points to a fundamental failure in national and local governance and exposes the corruption that defines Nigerian life. The World Bank lists Nigeria as a less than a 25th percentile nation for government effectiveness, as shown in figure 7.[47] Criminality is undoubtedly a critical driver in Nigeria's poor performance in governance.[48]
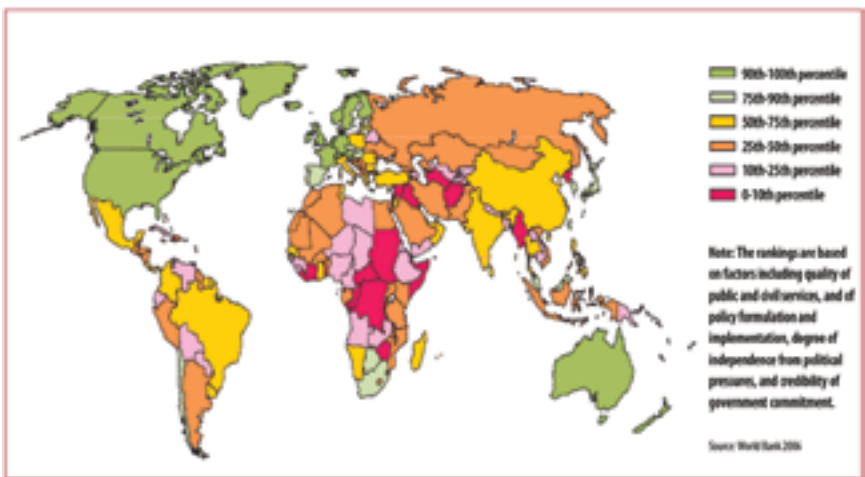
Figure 7. Government effectiveness. (UN, *World Book* [New York: UN, 2006].)

Petro-Culture Collapse

Oil drives the Nigerian power brokers and energizes nationalist sentiments and even transnational forces to bring conflict to the country. The global economy in 2009 heavily depends on Nigeria's oil resources, but the rise of new energy technologies in the twenty-first century threatens the importance of Nigeria's dominant industry in the next 20 years. Traditional energy suppliers face shifting markets driven by the national security interests of competing global powers. Nations built and dependent on oil commodities face dramatic change, including loss of revenue and possible chaos as governments find themselves unable to pay for vital social services for their populations.

A possible future decline in the world's oil demand driven by new types of energy bodes ill for Nigeria. A weakened petrol-based economy, combined with a large socially oppressed and possibly radicalized youth population and a corrupt and illegitimate government, has the potential to shatter Nigerian society. Civil clashes are certain to worsen following such a collapse. The failure of cen-

tral and local governments to create the institutions and infrastructure that normally foster prosperity, support education, and promote equity will foreclose options for dealing with this impending social and economic crisis.

Clash of Haves and Have-Nots

The youth bulge exacerbates Nigeria's imbalance in resource distribution. The country's transportation infrastructure, left undeveloped, makes efficient transport of goods virtually impossible and subject to exploitation by the MEND's roving gangs. Nigeria's growing population is expected to climb to 225 million by 2030. Marked by near 6 percent unemployment in 2007,[49] the youth bulge will result in dismal employment prospects for restless workers who will find little hope for work in the nation's weak industrial sector.

Despite Nigeria's strong progress in food security, the UN Food and Agriculture Organization posits that Nigeria may suffer future water shortages in the agrarian north. This region borders the Sahel and the Sahara, an area known as a training ground for international terrorist groups. Complicating economic development in the north is the suffocating cloak of Shar'ia law, which prevents women from gaining an education or achieving equality in the workplace, effectively eliminating half the potential of Nigeria's northern states. This latter dynamic is taking place in the region where birthrates are the highest in the country.[50] Over time, this will further widen the economic disparity that defines the rift between north and south.

The effects of climate change may adversely affect the whole of the country. The story of global climate change has gained traction, as evidenced by the US decision at the late 2007 global summit in Bali to implement and enforce initiatives to bring its domestic industry into tighter compliance with rules regulating harmful emissions.[51] The UN Framework Convention on Climate Change in Copenhagen, Denmark, in December 2009 produced some additional momentum. Regardless of severity, climate change potentially threatens to impact global demographics, especially in states that have enormous investment and dependency on industries operating near the coasts and those with large population concentrations located near ocean or desert areas.[52] While the Sahara Desert may expand more rapidly into the northern agrarian regions, a rise in the sea level may affect the coastal south. In short, global changes in climate could displace people and disrupt economic activities in coastal centers such as Lagos or the Niger Delta.[53] Internal displacement or forced migration of populations from these threatened regions only exacerbates current ethnic tensions.

As a result of the influences of culture, climate change, and governmental corruption, an economic schism is developing across

Nigeria, and this divide is likely to worsen. As noted earlier, Nigeria's south is receiving a disproportionately large fraction of the infrastructure development for the purpose of bringing goods and services to the major seaports. These advances are not likely in the north where its leaders and social structure tend to stifle education, restrict global and national engagement, and restrain economic opportunity. As the Muslim population in the north grows, the combination of traditional values will keep the restive youth in the conservative north primed for conflict against the more liberal south. These northern "have-nots," possibly radicalized and angry, will likely foment the rise of civil conflict in years ahead.

Notes

1. Levinson, *Ethnic Groups Worldwide*, 156.
2. "Failed States Index 2007," Fund for Peace and Foreign Policy.
3. Levinson, *Ethnic Groups Worldwide*, 157.
4. Sarkees, "The Correlates of War," 123–44.
5. Ploch, *Africa Command*, 12. Seam states are those bordering Nigeria's 12 northern Islamic states.
6. Levinson, *Ethnic Groups Worldwide*, 157.
7. CIA, "Nigeria Country Page," *World Factbook*. The factbook shows Nigeria to have approximately 146,255,000 people, of which half, or 73 million, are Muslim. This places Nigeria between fourth and sixth place in terms of states with a Muslim population—nearly tied with Egypt and Turkey.
8. Ibid.
9. "Failed States Index 2007," Fund for Peace and Foreign Policy.
10. Danan and Hunt, *Mixed Blessings*, 32.
11. Levinson, *Ethnic Groups Worldwide*, 159.
12. "Failed States Index 2007," Fund for Peace and Foreign Policy.
13. Ibid.
14. Ibid.
15. BBC, "Nigerian Military Warns Oil Rebels."
16. "Failed States Index 2007," Fund for Peace and Foreign Policy.
17. Smith, *A Culture of Corruption*, 118.
18. Ibid., 119.
19. Ibid., 193.
20. Goings, "Nigeria: Socio-Economic Factors 2007."
21. Smith, *A Culture of Corruption*, 136.
22. Thompson, "Give Me Rice, but Give Me a Laptop Too," *BBC News*.
23. Friedman, *The World Is Flat*, 3–50.
24. Global Voices, "Sub-Saharan Africa."
25. Goings, "Nigeria: Socio-Economic Factors 2007."
26. Ibid.
27. Federal Ministry of Health, *National Malaria Control Programme*, 3.
28. Ibid.
29. United Nations (UN) Environment Programme, *Global Environment Outlook* (GEO–4).
30. Goings, "Nigeria: Socio-Economic Factors 2007."
31. UN Environment Programme, *Global Environment Outlook*.
32. Ibid.
33. Goings, "Nigeria: Socio-Economic Factors 2007."
34. US Department of State, "Background Note: Nigeria."
35. Ibid.
36. Ibid.

37. Ibid.

38. Ibid.

39. Ibid.

40. Dagne, *Nigeria in Political Transition*, 8.

41. "Nigeria Oil Production Drops to 50 Percent of Capacity as Fighting Continues," *Ghana Business News*, 22 May 2009, http://ghanabusinessnews.com/2009/05/22/nigeria-oil-production-drops-to-50-of-capacity-as-fighting-continues (accessed 20 June 2009).

42. Ploch, *Nigeria: Current Issues*, 15. At the production rate of 1.6 million barrels per day, and with oil priced at $60.15 per barrel, the Nigerian oil industry in mid-May 2009 had fallen to an annual revenue production rate of $36 billion per year. This has recovered slightly over the summer due to higher oil prices.

43. Ibid.

44. Shelley, "Unraveling the New Criminal Nexus," 1.

45. Ploch, *Nigeria: Current Issues*, 7.

46. Fund for Peace and Foreign Policy, Web Survey.

47. Goings, "Nigeria: Socio-Economic Factors 2007."

48. UN Environment Programme, *Global Environment Outlook*.

49. CIA, "Nigeria Country Page," *World Factbook*.

50. Ibid.

51. BBC, "US Sets Terms for Climate Talks."

52. CNA, *National Security and the Threat of Climate Change*.

53. Levinson, *Ethnic Groups Worldwide*, 158. Levinson points out that rises in ocean levels in areas near sea level, like the Niger Delta, could force the migration of millions of people.

Chapter 4

Nigerian Politics

Col Mark D. DeLong

According to the CIA's *World Factbook*, "Nigeria is a federalized constitutional democracy which boasts a gross domestic product of over $165 billion (2009 est. official exchange rate)."[1] Yet despite this outward appearance of a representative democracy with a robust growing economy, between 52 and 72 percent of Nigerians live on less than one dollar per day.[2] The most prominent reason for this seeming paradox is the corruption pervading Nigerian society. As stated previously, past leaders have been more concerned with lining their own pockets than with providing Nigeria's populace with good governance and basic human services.

Nigeria is also a very diverse and complex society. Governing this country of nearly 135 million people, at least 350 different ethnicities, and numerous languages is no easy task. A failure to properly govern this diverse country may lead to its collapse. Should that occur, the seams that currently define Nigeria's individual cultures could shatter, threatening not only the survival of the nation's large population but, because of its contribution to Western oil supplies, the economies of Europe and North America as well.

Governmental Framework

The president of Nigeria is the head of state; his service is limited to two four-year terms. Like the United States, Nigeria is a three-branched federal republic with executive power held at the presidential level. Unlike the United States, the Nigerian constitution also requires the cabinet to be representative of the various regions of the country, with at least one cabinet member required from each of Nigeria's 36 states.

The legislative branch is the National Assembly. The National Assembly consists of a 109-member senate and a 360-member house of representatives. Each state is equally represented with three senators in the senate, plus one senator from the capital city of Abuja. In the house of representatives, the members are allocated based on population.

The judicial branch consists of the Supreme Court, the Court of Appeal, and the Federal High Court. Supreme Court members are appointed by the president and confirmed by the senate.[3]

"Power sharing" in Nigeria is not constitutionally mandated. However, in the most recent elections, the main political parties have presented a Muslim and a Christian combination on the ballot to gain diverse support in an equally split country. For example,

Nigeria's current vice president, Goodluck Jonathan, former governor of Bayelsa State and a Christian, is from the Niger Delta.[4] He is the elected balance to President Yar'Adua, a Muslim from the northern Katsina State.

Beneath the federal level of government lie the 36 states. Each state has an elected governor who is also limited to two four-year terms. Each state also has an assembly based on population and a judicial high court. Nigeria is further divided into 774 local governmental areas. The local-level government councils are responsible for providing basic governmental needs and services and are dependent on the federal government for funding.[5]

The federal government's job is to provide national services and funding to the lower echelons of government. In turn, the local governments are responsible for basic services such as police, health care, and education.

Political Parties

There are several political parties in Nigeria. The People's Democratic Party (PDP) is the current majority party. As of 2009, it holds the presidency, the Senate, and the House. The closest opposition party is the All Nigeria People's Party (ANPP). Muhammadu Buhari was the 2007 presidential candidate for the ANPP. Buhari set a new precedent in Nigeria for a leader of a party not in power, becoming the "voice of the constructive opposition." In an amazing precedent, despite the very questionable legitimacy of the 2007 election, Buhari commanded his followers not to take to the streets.[6] The other main political party is the Action Congress, led by former vice president Atiku Abubakar.

Officially, there are 51 registered political parties in Nigeria. To qualify as an official political party, its leadership must show that it has officers in at least two-thirds of the 36 states.[7] Even though there are 51 officially registered political parties in Nigeria, the top three parties represent 97 percent of the Nigerian electorate.[8]

Legitimacy

One of the main issues affecting the current political control of the Third Republic is legitimacy. Specifically, the elections of 1999, 2003, and 2007 were steeped in violence and fraud. International observers of the 2007 election, such as former US president Jimmy Carter, were invited with the intent of gaining international legitimacy. Yet, even with these observers present, voting boxes were stolen; many districts reported more votes than they had registered voters; and there was rampant vote buying, ballot box stuffing, and voter intimidation.

Nonetheless, the 2007 elections produced a nationally respected leader who has no apparent public ties to corruption. Many feared

that Yar'Adua was simply a front man for Obasanjo, the leader under whom he served as vice president. Yet Yar'Adua enhanced his legitimacy by upholding the rulings of the state high courts that addressed the election irregularities, removing several of his party from power; he subsequently distanced himself from Obasanjo by reversing several of his policies and by appointing a well-regarded, high-level commission to again overhaul the electoral system.[9]

Governance

With limited industrial development and oil production consigned mainly to the southern states, 90 percent of funding to the states and localities is provided by the Nigerian federal government, largely from oil export revenues. Much of this funding is provided through a complex federal oil wealth-sharing program in which each of the 36 states has calculated shares. These shares are based on a formula which includes population, level of development, and sources of oil revenues.[10] However, the state governors are given the budgeting and distributing powers for this money, and as a result, much of the oil wealth has flowed to the members of the predominant political party, the PDP. Thus, defections from one political party to the one currently in power are not uncommon.[11] By the time the money flows through the political system, there is normally little left for the local governments to provide required basic human services.

Nigeria is progressing in making the entire revenue system more transparent. Three years into his administration, President Obasanjo initiated the Nigerian Extractive Industries Transparency Initiative (NEITI) and began publishing revenue transfers between the federal, state, and local governments. NEITI is mandated by law to promote transparency and accountability in the management of Nigeria's oil, gas, and mining revenues.[12] President Yar'Adua pledges to uphold this transparency and serves as minister of energy to oversee this vital area.[13]

This new level of transparency revealed that the national government failed to provide the country with basic human services, transportation, and industrial infrastructure. As a result, Nigeria is fraught with substandard roads and rails. The national power grid is just as bad, leaving most Nigerians with little or inconsistent electrical power.[14] Telecommunications have improved but still provide only 16 million fixed and mobile phones for a population of 135 million. Additionally, airline service is limited to the major cities.[15]

President Yar'Adua's seven-point plan concentrates on exactly what previous national Nigerian governments failed to provide for the Nigerian people: power/energy, food security, wealth creation, a transport sector, land reforms, security, and education (see appendix A). The president's overall governing intent is "to deepen

democracy and the rule of law; build an economy driven primarily by the private sector, not the government; display zero tolerance for corruption in all its forms; and finally, restructure and staff government to ensure efficiency and good governance."[16]

The Politics of Diversifying the Economy

Between 90 and 95 percent of Nigeria's current export earnings are from oil and other petroleum products. In turn, the oil exports are 80 percent of the government's revenues.[17] Oil has become almost the singular export product due to the collapse of the northern textile and manufacturing industries. These industries failed as financiers shifted their investment capital to the oil sector and to other regions in Africa and Southeast Asia. The northern economy remains based on agriculture and suffers from a lack of infrastructure, as does the south.[18] While the oil industry provides the lion's share of wealth to Nigeria, it only employs an estimated 35,000 people, or less than 6 percent of the population.[19]

The current government agenda calls for industrial diversification, and the government has made positive improvements in this area. Non-oil growth accounted for 8.9 percent in 2006 and was estimated to reach 10.4 percent by 2009.[20] This diversification may expand if the government not only modernizes the oil industry but also leverages advances in commercial farming and excavation of solid minerals. Nigeria boasts large deposits of bitumen, columbite, tin, and kaolin. Further, Nigeria possesses large natural resources of developable coal, gold, diamonds, bauxite, gypsum, barite, zinc, aluminum, copper, and salt.[21]

The oil revenue-sharing program provides little incentive for the states to produce anything else. Prior to independence, states were able to keep all of the revenues that were gained within their state.[22] With the oil boom and strict adherence to federalism, Nigeria started the revenue-sharing program. While revenue sharing provided much needed government funding to the nonlucrative agrarian north, it also intensified ethnic tension with the oil producing south, which appears to resent the transfer of wealth. This resentment gave birth to an active insurgency in the Niger Delta region which now threatens oil production throughout the south.

Political Summary

Nigeria is stepping into the twenty-first century with hope, a growing economy, and a strong leader heading its national government. Nigerians appear to be working to turn this hope into action. Their governmental leaders have shown strength and appear to have the moral courage to counter corruption with new tools such as the EFCC, NEITI, and the Independent National Electoral Commission (INEC). These tools have been forged from the dismal failures of the

previous regimes and are strengthened with the promise of transparency and accountability at the highest levels. Yet Nigeria must leverage its lucrative oil economy to diversify a very narrow economy rather than merely reap monetary benefits from a finite, non-renewable resource.

Consequently, the main variable in Nigeria's future that will determine if the country succeeds as a democracy or fails as a state is the government's ability to provide good governance. If Nigeria uses its national treasures and oil wealth properly, its people and institutions may yet prosper. Yet reduced oil prices and the global recession of 2007–10 will likely delay universal prosperity in the difficult years ahead. Nigeria's future will be shaped by the ability and willingness of elected officials and their supporters to provide professional governance and security to Nigeria's people while building solid infrastructure and diversifying the economy. Nigeria's political success could be a model for all future democracies desiring to leave their corrupt civil-military dictatorships behind. Political success creates conditions for economic progress. In Nigeria's case, its failure could affect the entire world.

Notes

1. CIA, "Nigeria Country Page."
2. World Bank, "Nigeria." Again, there is no accurate census available.
3. Library of Congress, *Country Profile: Nigeria*, 17.
4. Ploch, *Nigeria: Current Issues*, 4.
5. Library of Congress, *Country Profile: Nigeria*, 18.
6. Angelica Carson (Central Intelligence Agency), interview by the author, 26 October 2007. The fact that a charismatic political leader can effectively control the passions of his followers in modern Nigeria suggests that politically powerful religious leaders may hold even greater sway over their populations. This demonstrated power and influence by a charismatic leader form the basis for the scenario presented in chapter 7 in which politically motivated and charismatic Islamic religious leaders exert great influence over their followers and use their larger Islamic population with its effective majority of the voting age electorate to win control of Nigeria's government in a special election called in 2030.
7. Dagne, *Nigeria in Political Transition*, 3.
8. Independent National Electoral Commission of Nigeria.
9. Carson, interview.
10. Paden, "Nigeria."
11. Ibid.
12. Extractive Industries Transparency Initiative, "Nigeria."
13. Political Risks Services Group, *Nigeria: Country Report*, 19. While the purpose is transparency, placing the politician who occupies the position that historically has gained the most revenue, namely the president, in charge of the accounting process may not necessarily be the perfect cure for Nigeria's corrupt past. It takes little imagination to liken this to having the fox guard the henhouse. While there is no intent to impugn President Yar'Adua here, establishing this as a systemic solution to the problem of corruption may not yield a permanent solution.
14. Ibitoyea and Adenikinju, "Future Demand for Electricity in Nigeria," 492.
15. Political Risks Services Group, *Nigeria: Country Report*, 10.
16. Yar'Adua, inaugural address.
17. Dagne, *Nigeria in Political Transition*, 6.

18. Paden, "Nigeria."

19. Tripathi, "In Nigeria, Oil Wealth Delivers Grief."

20. World Bank, *Global Economic Prospects*. This growth is mostly in the services industries at present. Manufacturing has actually declined in 2007 and 2008, while services industries are growing at roughly 12 percent per year.

21. CIA, "Nigeria Country Page."

22. Library of Congress, "Unification of Nigeria."

Chapter 5

Nigeria's Economy

Col Daniel B. Gordon

Nigeria has been called the best example of the "paradox of plenty." Its natural resources, especially its light "sweet" crude oil, create great wealth that begets "extravagant corruption, deep poverty, polarized income distributions, and poor economic performance."[1] Largely because of this paradox, Nigeria has not achieved its economic potential.

Instead of capitalizing the revenue from its oil sales to grow into a strong, stable, and democratic country, Nigeria has instead become infamous for its numerous military coups, lawlessness, rampant corruption, extreme poverty, and ubiquitous 419 fraud schemes.[2] The US State Department views Nigeria's lack of economic development as a result of "decades of unaccountable rule."[3]

Consequently, frustration runs high, thus contributing to Nigeria's many internal conflicts. While some have been ethno-religious and community conflicts, the primary underlying source of tension in the country is the uneven distribution of wealth from oil revenue.[4] The International Crisis Group (ICG) notes the flow of money is going to a small fraction of the populace, and, as a result, the majority of Nigerians have only two options: "fatalistic resignation or greater identification with alternative hierarchies based on ethnicity, religion, or other factional identities."[5]

Nigeria's Economic Landscape Today

At the macro level, Nigeria's economy is problematic. Poverty levels are high, and individual and national prosperity has been hindered by rampant corruption, underdeveloped and insufficient human services and industrial infrastructure, overreliance on a single commodity (oil), a poor education system, and an ever-growing youth bulge. On a positive note, the government has instituted an improved economic policy framework, and the economy has seen robust growth, low inflation, and better investor confidence. In addition, record-high oil prices have, in the past, generated greater-than-expected revenues.

Significant Economic Problems

Poverty in Nigeria is a major problem and the cause of internal tension. Average Nigerian per capita income is $1,149 per year,[6] an astonishing figure considering the approximately $45 billion the country receives in annual oil revenues.[7] Again, Nigeria is not a homogeneous nation, so its poverty is not affecting the entire pop-

ulation equally. Thus, it is important to consider poverty statistics at the regional and subregional level. The Central Bank of Nigeria reports that northern Nigeria has higher poverty levels than the rest of the country (see table1).[8]

Table 1. Poverty level percentages by region (1980–2004)

Nigerian Region	1980	1985	1992	1996	2004
South-Central	13.2	45.7	40.8	58.2	35.1
South-East	12.9	30.4	41.0	53.5	26.7
South-West	13.4	38.6	43.1	60.9	43.0
North-Central	32.2	50.8	46.0	64.7	67.0
North-East	35.6	54.9	54.0	70.1	72.2
North-West	37.7	52.1	36.5	77.2	71.1

While the poverty gap between north and south had almost closed in the early 1990s, the gap has widened again this century. Nigeria's Central Bank has determined that elevated poverty rates are highly correlated with literacy rates, the average size of the household, and "orientation to private-sector led wealth creation as opposed to dependence on government assistance."[9] In other words, higher poverty rates were found in regions where dependence on government was greatest.

A 2007 University of Oxford study concluded that economic inequalities in Nigeria are also due to discriminatory allocation of government projects, different access to key sectors of the economy, as well as unintended consequences of macroeconomic policies.[10] As researchers conducting field studies with the local population found, perceptions among the Nigerian people, regardless of ethnicity, are really more important than actual statistics. It is interesting to note that although southern Nigerians are much less poverty-stricken than their northern brethren, they view themselves as less well-off (see table 2).[11]

Table 2. Self-assessment of poverty status versus actual incidence (percentage of populace)

ZONE	Self-Assessment	Actual Incidence
North-West	71.9	71.17
North-East	81.8	72.16
North-Central	80.0	66.97
South-West	71.5	43.01
South-East	77.6	26.74
South-South	74.8	35.06

These perceived and actual poverty rates have directly led to rising tension and conflict, particularly in the oil-producing regions in the south.[12] The recurring insurgency, now led by MEND in the Niger Delta region in southern Nigeria, has received the most recent attention.

First organized in 2005, MEND appears to be an umbrella group for a number of indigenous rebel groups in the Niger Delta region. Labeled as a criminal organization by the Nigerian government, MEND is composed mostly of disaffected unemployed youth in the Delta region. Young people from other areas of the country are drawn to the group, as tales of their exploits are made known through the press and by word of mouth.[13] The group appears to use attacks on critical oil infrastructure, kidnapping or murder of oil personnel in the region, and attacks on offshore oil platforms in the Gulf of Guinea to disrupt oil production. Their actions are designed to create price spikes in the international oil market[14] and perhaps even induce an artificial Hubbert peak.[15]

MEND seeks redress for the environmental degradation caused by oil production in the Niger Delta region. It also intends to force the Nigerian government to return a greater share of the nation's oil profits to the region. The cumulative effects of numerous oil spills (reports indicate up to 2.5 million barrels spilled between 1986 and 1996) have limited clean water access for the people of the Delta region and have depleted most of their fishing stocks.[16] Further, while the oil producing states receive one-third of the oil derivation funds, the amount of money making its way down to the local populace is minimal due to corruption and mismanagement.[17] In fact, one recent estimate indicates the Nigerian government is losing $14 billion a year in oil revenues as a result of corruption and crime.[18]

In an attempt to force the government to address these twin problems, the insurgency has targeted Nigerian military forces, oil company personnel, and oil facilities and related critical infrastructure. At times insurgents have successfully reduced oil production capacity by up to one-third.[19] The insurgency funds its arms and sustainment mostly through the sale of "bunkered" oil it steals from Nigeria's largely unguarded pipelines.[20]

Nigeria's economic success has been limited by rampant corruption and a culture of impunity where anything goes.[21] Nigeria's grossly underdeveloped infrastructure, particularly its electricity capacity, is a major limiting factor for growth due to both a lack of production capability and transmission capacity. For comparison, Nigeria's per capita power output is estimated at 82 kilowatts (kW) annually compared with an average of 456kW in other sub-Saharan African countries and 3,793kW in South Africa (see table 3).[22] This is a considerable factor in the lack of economic development and high levels of poverty, which trigger conflicts throughout Africa's most populous country.[23]

Table 3. Infrastructure status in Africa[24]

	Nigeria	South Africa	Sub-Saharan Africa	Low-Income Countries	High-Income Countries
Electric power consumption kW per capita (2001)	82	3,793	456	317	8,421
Road-to-population ratio 1000km per million people (1995–2001)	1.1	8.5	2.6	—	—
Paved primary roads – percent of roads (1995–2001)	30.9	20.3	13.5	16	92.9
Telephone – mainlines per 1,000 people (2002)	6	107	15	28	585
Access to sanitation – percent of population (2000)	54	87	54	43	—
Access to safe water – percent of population (2000)	62	86	58	76	—

President Yar'Adua acknowledged this problem, stating that "our abysmal infrastructural challenge remains the greatest impediment to economic growth" and has caused "higher costs of doing business, declining rates of capacity utilization, and lower quality of life for a majority of our population."[25] The president's assessment is borne out by the UNDP Human Development Index (HDI), which ranks Nigeria 159th of 177 surveyed countries.[26]

Most troubling for Nigeria's future is the education system, which is in a state of collapse.[27] The annual federal government spending on health and education is only 1 and 3 percent of expenditures, respectively.[28] The responsibility for both programs now lies with local officials who have demonstrated an inability to improve the situation. The net result is high disease mortality rates and a "top 20" economy with a societal literacy rate of only 57 percent.[29] With disproportionate population growth in the Islamic north,[30] the youth bulge, high unemployment, and economic disparity are likely to worsen in the future.

A final and perhaps paramount weakness in Nigeria's current economy is its overreliance on a single commodity—petroleum. As the world's eighth largest oil exporter, with oil accounting for over 80 percent of federal government income, 52 percent of the gross domestic product (GDP), and up to 95 percent of export earnings,[31] high oil prices generate ample revenue for Nigeria, but its economy depends so heavily on its oil sector that any disruption to this revenue stream will almost always have significant ramifications. ICG notes that a failure to diversify the economy, widely fluctuating oil prices with prices spiking to over $147 a barrel in July 2008 followed by a rapid decline to under $50 per barrel in 2009, and corruption all have firmly placed Nigeria into "a development trap."[32]

Positive Economic Trends

Even with these weaknesses and ongoing issues, Nigeria's economy has enjoyed some positive developments and trends over the last five years. Implementation of an improved policy framework and new

policies is leading to steady growth, low inflation, and better investor confidence. From 2002 to 2008, GDP growth ranged between 3.8 and 6.5 percent, inflation dropped from 18 to 11 percent (2009), and the population increased (a key ingredient for economic growth) from 130 to nearly 140 million.[33] In 2009 Nigeria's economy slowed considerably as the global recession substantially reduced the price of oil—GDP growth was a relatively anemic 1.9 percent.[34]

Overall though, this performance has emboldened the Nigerian leadership to trumpet "Nigerian Vision 20: 2020," in which Nigeria is to become a top 20 global economy by the year 2020.[35] This vision links up well with the Bank of Nigeria's position that "sound economics is excellent politics," with prosperity required to establish an enduring democracy and a per capita income of $1,000 as the threshold.[36]

To continue this positive momentum, President Yar'Adua has announced his reform priorities, several of which, if successful, will improve the economy. The most critical of these is improving electric power generation and distribution and winning the fight against corruption. President Yar'Adua stated that Nigeria would require an estimated annual infrastructure investment of $6–9 billion per year.[37] While Nigeria's fight against corruption to date has resulted in 130 convictions for fraud and the arrest of over 2,000 others responsible for illegal scams, it is clear the problem needs continued attention if it is to be decidedly reduced.[38]

The 2008 high oil prices were a major boon for Nigeria's economy. With prices rising to more than $147 per barrel in July 2008, the influx of oil profits quickly improved government revenues. Nigeria created the Petroleum Equalization Fund to properly invest its oil windfall, most notably to finance the budget deficit and increase savings.[39] Nigeria also implemented an oil-price-based fiscal rule, basing government expenditures on a conservative oil price benchmark to diminish the impact of significant oil-price fluctuations on the domestic economy.[40] In fact, despite rising oil prices, Nigeria's 2007 budget was based on $40 per barrel.[41]

Although oil prices briefly retreated below $50 per barrel in early 2009, the long-term outlook for continued high oil profits is positive, as demand will generally continue to climb while Organization of Petroleum Exporting Countries (OPEC) and non-OPEC marginal producer sources of supply decrease.[42] Properly invested, excess funds can be used to improve infrastructure, provide better services for the Nigerian people, strengthen education and health care, and even diversify the economy.

President Yar'Adua's priority of fighting corruption is a continuation of an effort initiated by his predecessor, Obasanjo. Government activities to stem corruption appear to have yielded some positive results (see figure 8), as there has been a measurable decrease in the percentage of firms reporting high bribery activities in the important taxation, procurement, and judiciary sectors.[43] Although cor-
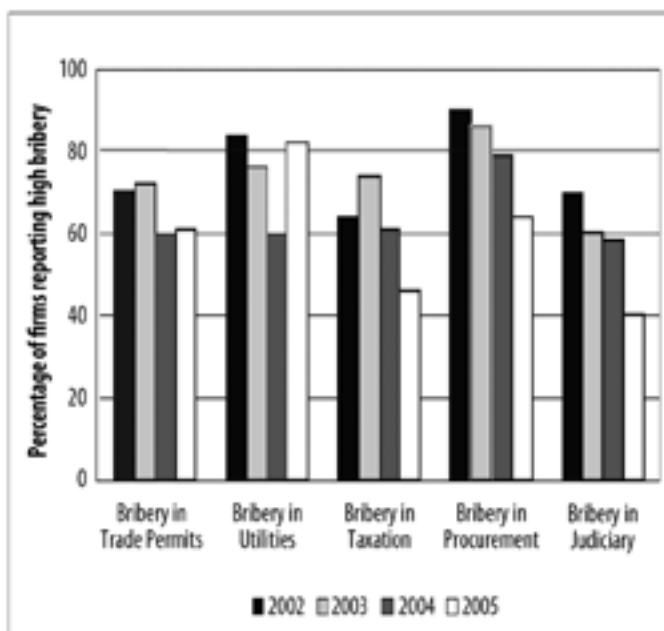
Figure 8. Nigeria bribery in selected sectors. (*Reprinted from* briefing, Danny Kaufmann, "Nigeria in Numbers—the Governance Dimension: A Preliminary and Brief Review of Recent Trends on Governance and Corruption," Abuja, Nigeria, 12 October 2005.)

ruption is rampant throughout Nigerian society, there is still much to do before the government can claim victory.

Nigeria's Economic Landscape

As addressed above, Nigeria's social and development problems have stunted its economic growth. The good news for Nigeria is that, over the next 20–25 years, the confluence of increasing demand for oil and other natural resources and greater globalization will create a strategic environment favorable for Nigeria to realize its potential and become a global economic power.

At the macro or global level, the World Bank projects that economic integration through globalization will continue through the year 2030 with global GDP increasing 2.9 percent annually and developing countries, such as Nigeria, experiencing the greatest economic growth.[44] In spite of the global recession which hit hard in 2008 and 2009, the World Bank notes that the region's projected growth over the next few decades and implications for global poverty reduction are "nothing short of astounding," with the total number of people living in poverty being cut in half, despite continuing population growth.[45]

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Will Nigeria Become a Top 20 Economy?

This positive attitude extends to Nigeria's economic growth. Goldman-Sachs, the global investment bank which projected the economic rise of Brazil, Russia, India, and China (BRIC), has identified 11 additional countries with great potential to emerge as economic forces—Nigeria is one of these 11 countries.[46] In its December 2005 update to the original BRIC assessment, Goldman-Sachs provided an in-depth analysis of Nigeria's potential for rapid economic growth and the difficulties Nigeria may experience in achieving and sustaining the prerequisite conditions permitting the growth to happen.[47] To make its assessment, Goldman-Sachs modeled projections of GDP, real GDP growth, income per capita, incremental demand, and exchange rate paths. The results of the model predict that Nigeria has the potential to become the 20th largest economy in the world by 2025 and the 12th largest by 2050.[48]

In terms of real GDP, Goldman-Sachs projects growth to accelerate between 2005 and 2030 from an average of 5 percent per year, over the next five years, to 6.6 percent per year between 2025 and 2030.[49] This would increase Nigeria's GDP from $94 billion today to $556 billion in 2030.[50] Even with its rapid population growth, GDP per capita has the potential to more than triple between 2005 and 2030, from $733 to $2,405.[51] These positive numbers provide a basis for the Nigerian government's economic optimism.

However, Goldman-Sachs also assessed the conditions of each of the Next Eleven (N-11) countries necessary to achieve and sustain solid economic growth. Goldman-Sachs developed a growth environment score (GES) to summarize the overall economic environment, based on the notion that "strong growth is best achieved with a stable and open economy, healthy investment, high rates of technology adoption, a healthy and well-educated workforce, and a secure and rule-based political environment."[52] Goldman-Sachs considers five basic areas: macroeconomic stability, macroeconomic conditions, technical capabilities, human capital, and political conditions.[53] Of the 15 emerging countries (BRICs plus the N-11), Nigeria was dead last with a GES index of 2.6 out of seven. The mean score was 3.8.[54]

A closer look at the GES scores reveals Nigeria scored close to the mean for macroeconomic stability and conditions but scored at the bottom or next to last in technological capabilities (integration of personal computers, telephones, and Internet), human capital (education and life expectancy), and political conditions (political stability, rule of law, and corruption).[55] Successful implementation of President Yar'Adua's priorities for battling corruption and upgrading the nation's electrical power production and transmission grid will likely improve the political conditions and technological capabilities of Nigeria. However, because of the lack of diversity in the Nigerian economy, these and other gains

rely completely on Nigeria's oil and gas revenues. One important lesson from the Goldman-Sachs study is how critical it is for Nigeria to address each of these issues now in order to secure for a positive future.

A Positive Energy Outlook

Focusing on demand first, both Exxon Mobil (the world's largest oil company) and the US Department of Energy (DOE) agree that world energy consumption is projected to grow by approximately 43 percent between 2006 and 2030.[56] The global energy mix is not expected to change significantly over the next few decades, with oil, gas, and coal continuing as the predominant sources of energy.[57] This increase in demand will occur even with high oil and natural gas prices—prices that are likely to increase beyond their 2008 peak in the mid and long term.[58]

Like other members of the OPEC cartel, Nigeria is one of the world's largest producers of light sweet crude oil. Because of its lower sulfur and hydrogen content, sweet crude oil is much easier and cheaper to refine into gasoline and other high-demand petroleum products than heavier "sour" crude oil. Thus, Nigerian oil is very much in demand by most of the world's advanced economies, including the United States.

With the stage set for global energy demand to increase over the long run, Nigeria is poised to reap the economic benefits. Some of the world's other major oil producers have started to see their "wells run dry." According to the DOE, Europe's primary oil producing countries (Norway and the United Kingdom) have already experienced production peaks, with their combined outputs dropping to less than a third of their peak outputs by 2030.[59]

In fact, utilizing the reserve-to-production ratios in the DOE's 2007 International Energy Outlook, the following countries may no longer be producing oil in large quantities by the year 2030: Russia, United States, China, Mexico, Algeria, Brazil, Canada, Angola, Indonesia, Oman, Malaysia, Argentina, Kazakhstan, and India.[60] This means the world's major oil producers in 20 years may be limited to Nigeria, Venezuela, Libya, and the Middle East countries of Saudi Arabia, Iran, Iraq, United Arab Emirates, Kuwait, and Qatar.[61]

A report by the National Petroleum Council (NPC), an oil and natural gas advisory committee to the US Secretary of Energy, states, "In addition to projected Saudi Arabian production, significant conventional oil production increases from Iraq, Iran, Venezuela, and Nigeria will be needed to meet projected global demand in 2030."[62] As a producer of light sweet crude oil, Nigeria recognizes this opportunity and is targeting an increase in its current proven reserves and production capacity from 35.9 billion barrels and 2.6

million barrels per day (MBPD) to 40 billion barrels and four MBPD, respectively, by 2010.[63]

In a longer-term outlook, growth in Nigerian oil production has been estimated to increase to as much as five MBPD by 2020.[64] From the US perspective, oil imports from Nigeria and its West African neighbors could rise from 15 percent of all oil imports to 25 percent by 2015.[65] This is due in part to three facts: oil from the Nigeria region is high-quality sweet crude, so it is easier to "crack" and distill than heavier sour crude; it takes one third the time to reach the American market compared to oil from the Middle East;[66] and Nigeria's oil offers better potential for stability vis-à-vis the Middle East.

While oil is the main focus of the energy market now, natural gas is quickly gaining in importance. The advances made in the ability to produce and transport liquefied natural gas (LNG) have made it a more viable energy source. Demand is expected to increase to 50 percent of total gas trade by 2030.[67] Nigeria is already the world's seventh largest LNG exporter,[68] and it is expected to increase its natural gas output by approximately 50 percent by 2011.[69]

With a projected 60 percent increase in energy demand by 2030, the next major question for Nigeria is what the price of oil and natural gas will be over that time frame. While speculation, energy usage, stockpiles and reserves, the strength of the US dollar, and economic growth drive great volatility in the fossil fuel markets, most analysts expect rising prices over the long term. As previously mentioned, the decline of oil production in a number of countries will increase the share coming from the OPEC nations of the Middle East.[70] In this case, OPEC could wield unprecedented power, which will likely not only cause prices to escalate but also increase price instability in the future.[71]

In addition, the dwindling oil sources mean transoceanic oil flows will more than double by 2030 (reaching 65 MBPD), thereby increasing transport costs and concomitantly the risk of disruption at major maritime chokepoints and even piracy on the high seas.[72] CountryWatch forecasts oil prices to be as high as $130 a barrel in 2030.[73] The DOE notes that rising oil prices will, in turn, increase the demand for and eventually the price of natural gas, as it replaces liquid fuels in the industrial and electrical power sectors.[74]

The projected rise of fossil fuel demand and the corresponding increase in prices, combined with Nigeria's production output growth, will increase available revenues for Nigeria to use in achieving President Yar'Adua's reform priorities. President Yar'Adua stated that Nigerians "are totally committed to transforming Nigeria into one of the world's 20 largest economies by 2020!"[75] While this may not be achievable (President Yar'Adua acknowledges this requires a minimum average growth rate of 15 percent while the best economic rate Nigeria has achieved in recent history is 10 percent), growth rates anywhere near 15 percent will allow him to ac-

celerate his reform priority of infrastructure improvement.[76] This will then lay the foundation for economic diversification, since Nigeria's lack of infrastructure is acknowledged by global economists to be one of the main impediments to economic growth outside the oil and gas industries.

A Widening North-South Gap

As Nigeria's economy grows, there will be several factors that widen the previously discussed poverty gap. The first is education. The USAID reports the northern states are providing little in the way of formal schooling for their children. The agency's statistics show the percentage of the population in the three northern regions having no education at all ranges from 40 to 70 percent, with only 10 to 15 percent having completed primary school. Conversely, the southern states are educating about 80 percent of the population, with over 20 percent completing primary school and half of those going on to complete secondary education.[77]

While the south's education is poor compared to Western standards, it far exceeds the north. Combined with disproportionate population growth in northern states[78] and a worsening national youth bulge,[79] a growing segment of the north's population will be young unskilled workers. As the World Bank points out, "Even though wages of unskilled workers in virtually all countries have risen as productivity has increased with globalization, the unskilled have received wage increases that are lower than those for skilled workers—and they have experienced greater difficulty in sustaining their employment."[80] Thus, the economic disparities between Nigeria's north and south, particularly in employment opportunities, are likely to worsen in the future.

A History of Violence

As Nigerian history has proven, differences (actual or perceived) in economic and social development between the north and south can be the catalyst for conflict. These differences have directly led to fighting resulting in over 12,000 casualties and 3 million displaced people since 1999.[81] The ICG asserts this bloody history has left Nigerians concerned that future factional violence will cause the state to fail.[82] Similarly, any future lengthy and significant reduction in the price of oil is of great concern for Nigeria as it becomes increasingly dependent on oil revenue and the pressure to spend revenue to improve overall economic growth and employment rises.[83]

Falling oil prices proved to be the fatal catalyst for the 1982 collapse of Nigeria's government. The drop in revenue caused government services to deteriorate, and the overall economy worsened to the point that a military-led coup was carried out.[84] Nigerians have already experienced several government failures based on econom-

ics. Economic fault lines remain and grow deeper as corruption and widely fluctuating oil prices siphon off resources needed to improve human service and industrial infrastructure, fund human services and education, and diversify the economy.

Plummeting Fossil Fuel Prices

The collapse of oil prices, and to a lesser degree gas prices, is a key factor in Nigeria's boom-to-recession scenarios. While global demand and regional instability, some driven by MEND actions, may force prices up, there are factors such as the growing concern over climate change and new renewable energy technologies that may work to constrain the rise in oil prices over the long term. Additionally, global recessions, like the one experienced between 2008 and 2010, may further suppress oil prices. How these forces interact will determine the market value for fossil fuels and will, in a single commodity economy, largely dictate Nigeria's economic and political future.[85]

Many of the renewable energy sources in use or under development throughout the world today were born out of the energy crises in the early and late 1970s. While the last three decades have yielded only modest investments and fielding of these technologies, the record-setting prices over the last four years have again put these technologies back under the spotlight.[86]

Political will notwithstanding, one of the biggest obstacles to renewable energy has simply been development and implementation costs—as long as oil remained relatively inexpensive, there was little incentive for industry and consumers to pay higher prices for non-fossil-fuel energy and its associated technologies. In May 2009, the DOE projected oil prices could begin rising again soon, reaching prices potentially as high as $200 per barrel (constant-year dollars) in 2030.[87]

Even with today's relatively high cost of fuel and widely fluctuating prices with moderate relief in sight, the DOE predicts renewable energy sources will only capture an additional 1 percent of the overall market (increasing its share from 7 to 8 percent) by 2030.[88] Studies by ExxonMobil and the NPC also show only a small market share for renewable energy sources.[89]

However, these analyses appear to have three notable flaws. First, most studies only evaluate the renewable penetration into markets as a function of a void filler where renewables are used to supplement fossil fuels when oil and gas cannot meet energy demands. The second flaw is that estimates are using linear methods for predicting the introduction and use of new technology and are thus underestimating the likely exponential rate of technology development. Finally, both ExxonMobil and the NPC are heavily invested in the oil economy and stand to profit from any rise in oil

prices; thus, any analyses they sponsor about alternative energy is arguably suspect.

The truth is that global growth in renewable energy investment and fielding indicates alternative energy technologies are becoming viable alternatives to fossil fuels, not just supplemental energy sources. Excluding large hydropower projects, renewable energy facilities generated 15 percent more electricity than in 2007; wind energy is currently growing at 25–30 percent annually with an 11-fold capacity increase over the last decade; and solar-photovoltaic-generated electricity (grid tied) grows 50–60 percent each year.[90]

Ray Kurzweil, a renowned futurist, notes that solar power alone "has the potential to provide the bulk of our future energy needs in a completely renewable, emission free, and distributed manner" by the year 2030.[91] In 2005 Kurzweil stated that the energy sector will "become governed by the law of accelerating returns," where the pace of technology changes exponentially, not linearly.[92] Echoing Kurzweil, the investment bank Jefferies Group expects short-term solar panel production to double in 2008 and double again in 2009.[93]

The final major problem of fossil fuels is the growing concern it is having on climate change. The DOE projects a 59 percent increase in carbon dioxide emissions between 2004 and 2030.[94] Lobbying by environmental groups has successfully attributed climate change to melting polar ice caps, severe droughts, desertification, and destructive deadly storms. The emission of greenhouse gasses as fossil fuels are burned is increasingly a political concern, driving world leaders to seek solutions to this problem, with an emphasis on renewable or clean energy sources.

Some see renewable energy as the primary economic path for the future. In December 2007, over 200 nations attended the UN Climate Change Conference in Bali, Indonesia, and developed the "Bali Roadmap" as a path to address climate change, calling it "the defining human development challenge of the twenty-first century."[95] Two years later, almost 200 nations attended the UN Climate Change Conference in Copenhagen, Denmark, in an effort to establish carbon emission limits and an international fund to help developing nations curb their carbon and other greenhouse gas emissions.

A new US presidential administration and Congress have increased political rhetoric and could successfully enact new policies and laws to encourage the use of alternative sources of energy, especially renewable sources.[96] Deutsche Bank predicts government efforts to reduce climate change will become a catalyst for creating a "megatrend" investment opportunity. In fact, renewable energy investment likely exceeded $100 billion globally in 2007, and global financiers began "the shift away from a carbon-based economy"; renewable energy is a "megatrend that will shape the asset management industry for many years."[97]

Economic Summary

Over the next 20 years, Nigeria's economy could well grow to be among the world's 20 largest. This success will be built on the export of oil and gas and the development of sufficient infrastructure to allow a slow, but steady growth in economic diversification. The non-fossil economy will be almost entirely based in the more prosperous southern states, while the northern states will continue to depend on government assistance.

By the year 2030, global use of renewable energy sources may cut demand for oil and natural gas, forcing a large price drop in Nigeria's main export and, in turn, reducing government revenues. This will widen the existing north-south economic gap, exacerbate tensions in the Niger Delta region, and serve as a catalyst for violence that may once again make a civil war imminent unless the Nigerian military maintains a state of readiness to forestall such an outcome.

Notes

1. Lubeck, Watts, and Lipschutz, *Convergent Interests*, 2.
2. *419 Fraud* or *419,* as the Nigerians refer to it, is a subclassification of Nigeria's advance fee fraud law. It is an organized attempt to solicit advance fees from unsuspecting people via fax, letter, or e-mail by promising them a remittance for their assistance in moving large sums of money, normally from a Nigerian bank.
3. Ploch, *Nigeria: Current Issues*, 12.
4. International Crisis Group (ICG), *Nigeria: Failed Elections, Failing State?* 9.
5. *Nigeria: Want in the Midst*, ICG, 1.
6. US Department of State, "Background Note: Nigeria."
7. *Nigeria Country Report*, 5.
8. Soludo, "Nigerian Economy."
9. Ibid., 8.
10. Langer, Mustapha, and Stewart, *Horizontal Inequalities in Nigeria*, 9.
11. Soludo, "Nigerian Economy."
12. Dagne, *Nigeria: Background and U.S. Relations*, 8.
13. *Fuelling the Niger Delta Crisis*, ICG, 6.
14. *Wikipedia*, s.v. "Hubbert peak theory."
15. The Hubbert peak oil theory was posited by American geophysicist M. King Hubbert. His models are used to predict when known or proven regional or global oil reserves—based on discovery rates, production rates, and cumulative production— will reach their maximum production rate or peak and then begin to decline. The model is expressed as a bell curve.
16. Ploch, *Nigeria: Current Issues*, 17.
17. *Nigeria: Want in the Midst*, ICG, 21.
18. Gentile, "Nigeria Losing $14 Billion," *UPI.com.*
19. Lubeck, Watts, and Lipschutz, *Convergent Interests*, 1.
20. *Fuelling the Niger Delta Crisis*, ICG, 8.
21. Soludo, "Nigerian Economy," 4.
22. Okonjo-Iweala and Osafo-Kwaako, *Nigeria's Economic Reforms*, 6.
23. Ploch, *Nigeria: Current Issues*, 1.
24. Okonjo-Iweala and Osafo-Kwaako, *Nigeria's Economic Reforms*, 6.
25. Yar'Adua, "Maintain Macroeconomic Stability."
26. Ploch, *Nigeria: Current Issues*, 11.
27. Soludo, "Nigerian Economy," 4.

28. Goings, "Socio-Economic Factors," 2.

29. CIA, "Nigeria Country Page."

30. Goings, "Socio-Economic Factors," 5.

31. Ploch, *Nigeria: Current Issues*, 12.

32. *Nigeria: Want in the Midst*, ICG, 1.

33. "Nigeria Country Report," *Economist*, 5.

34. Export Development Canada, *Nigeria—EDC Economics*.

35. Soludo, "Nigerian Economy," 2.

36. Ibid., 3. This was the estimated threshold necessary for sustained growth in 2006 and was crossed in 2007. In light of the marked reduction in oil revenues, as oil fell from $147 to roughly $50 a barrel at the time this is going to press, there is no guarantee that this threshold is still a plausible number.

37. Yar'Adua, "Maintain Macroeconomic Stability."

38. Ploch, *Nigeria: Current Issues*, 9.

39. NPC, *The Good, the Bad and the Ugly*, 11.

40. Okonjo-Iweala and Osafo-Kwaako, *Nigeria's Economic Reforms*, 10.

41. Nigerian government, memorandum of understanding, 3.

42. Braml, "Can US Shed Oil Addiction?" 123. Nonetheless, the authors are aware that there may be shorter-term fluctuations as a result of the ongoing economic recession.

43. Okonjo-Iweala and Osafo-Kwaako, *Nigeria's Economic Reforms*, 20.

44. World Bank, *Global Economic Prospects*, 3.

45. Ibid., xiii. This sentiment was restated in the World Bank's *Prospects for Global Economy 2009*.

46. O'Neil et al., *How Solid Are the BRICS?* 7.

47. Ibid., 10.

48. Ibid., 8.

49. This growth rate is based on Goldman-Sachs December 2005 analysis. This does not account for the brief exponential rise in oil prices in the first half of 2008, nor does it account for the global recession, which dramatically reduced oil prices from their $147 per barrel peak in July 2008 to less than $50 per barrel in 2009. This also reduced global financial transactions and restricted credit from the second half of 2008 throughout 2009. Nor does it account for the 2009 low 1.9 percent GDP growth. However, in spite of these fluctuations, Nigeria's economy is expected to grow 4 percent in 2010, moving it closer to the forecasts laid out by Goldman-Sachs in 2005. See "Nigeria 2009 GDP Growth Seen at 7.5 Percent," *Reuters News Agency UK*, http://www.reuters.com/article/oilRpt/idUKL22700032081202 (accessed 27 May 2009).

50. Ibid.

51. O'Neil et al., *How Solid Are the BRICS?* 20.

52. Ibid., 10.

53. Ibid.

54. Ibid., 13.

55. Ibid., 16–17.

56. US DOE, *International Energy Outlook 2009*, 7.

57. Ibid., 9.

58. Ibid., 2.

59. US DOE, *International Energy Outlook 2007*, 32.

60. Ibid., 38; and US DOE, *Strategic Significance of America's Oil Shale Resource*, 2. The combination of technology improvements and high oil prices makes it likely that additional oil reserves will be discovered and drilled, extending the oil production of some countries; however, the trend of dwindling resources will not be significantly altered.

61. Ibid., 38.

62. NPC, *Hard Truths*, 120.

63. Heinrigs, "Oil and Gas," 10–12. Recent data suggests, however, that these estimates may be optimistic. *Reuters News Agency* reports that Nigeria's oil output

for the first three months of 2008 averaged only 1.6 million barrels of oil per day, roughly 70 percent of the government's late 2007 estimates.

64. Lubeck, Watts, and Lipschutz, *Convergent Interests*, 4. The latest DOE estimates are slightly more pessimistic, with Nigeria having proven reserves of 36.2 billion barrels and a projected 2030 output of 3.4 MBPD. This latest decrease is due to instability in the regions adjacent to the oil fields, which this paper will address in the sections to come. See DOE, *International Energy Outlook 2009*, 39–41.

65. Ibid.

66. Heinrigs, "Oil and Gas," 5.

67. Ibid., 6.

68. Ibid.

69. US DOE, "Nigeria: Natural Gas."

70. US DOE, *International Energy Outlook 2007*, 38.

71. Braml, "Can the United States Shed Its Oil Addiction?" 23.

72. Heinrigs, "Oil and Gas," 5.

73. CountryWatch, *World Economic Summary*.

74. US DOE, *International Energy Outlook 2007*, 3. The 2009 outlook reiterates this conclusion but also admits to some uncertainty in future oil prices, with the potential for oil to reach $200 per barrel in constant 2000 year dollars.

75. Yar'Adua, "Maintain Macroeconomic Stability."

76. Ibid.

77. USAID, "Socio-Economic Factors," 7.

78. Ibid., 5.

79. US Census Bureau, "Midyear Population."

80. World Bank, *Global Economic Prospects*, xix.

81. Ploch, *Nigeria: Current Issues*, 2.

82. *Nigeria: Want in the Midst*, ICG, 7.

83. NPC, *The Good, the Bad and the Ugly*, 14.

84. *Nigeria: Want in the Midst*, ICG, 19.

85. NPC, *Non-Bio Renewables*, 1. The NPC study clearly showed increasing concern over renewable energy that caused energy independence to be seen as an element of national security.

86. Ibid., 5.

87. The US DOE has three forecasts for 2030—a low end, midrange, and upper-end forecast. The middle- and upper-end forecasts suggest oil prices will rise to between $130 and $200 per barrel by 2030. DOE, *International Energy Outlook 2009*, 24.

88. Ibid., 74; and US DOE, *International Energy Outlook 2007*, 4. The 2009 outlook, however, is more optimistic on renewable energy sources, suggesting they could comprise as much as 21 percent of the liquid fuels used in 2030. Even with this more optimistic estimate, Nigeria's oil will still be a critical piece of the world's energy supply, however.

89. NPC, *Non-Bio Renewables*, 1.

90. Technology News Daily, "Double-Digit Growth, Global Renewable Energy."

91. Kurzweil, *Singularity Is Near*, 248.

92. Ibid., 243.

93. Wynn, "Solar Power Edges."

94. Ibid.

95. Witoelar, address, UN Climate Change Conference.

96. As of publication, the Obama administration has asked Congress to vote on and pass a comprehensive energy policy, which may include "cap and trade" legislation, in 2010. The Environmental Protection Agency is taking action to increase corporate average fuel economy standards on vehicles produced in the United States and is preparing to implement caps on carbon dioxide and other greenhouse gasses.

97. Reuters, "Major Bank Says Climate Change Is Investment," What effect the global recession of 2008 through 2010 will have can only be surmised as of publication.

Chapter 6

Military Vectors

Col Robert S. McAllum

President Obasanjo published Nigeria's first defense policy in 1979. At that time he tasked the Nigerian military with four primary functions: preserving Nigeria's territorial integrity, contributing to national emergencies and security, promoting collective security in Africa while furthering Nigerian foreign policy, and contributing to global security.[1] Thirty years later, the responsibilities of the current Nigerian military remain the same as iterated in President Obasanjo's 1979 national defense policy.[2]

Consistent with its prescribed responsibilities, Nigerian military forces have operated outside the country only in support of peacekeeping efforts. These efforts began nearly simultaneously with independence, with Nigerian peacekeepers assisting in the Congo in 1960[3] and Tanzania in 1963.[4] The Economic Community of West African States Military Observer Group (ECOMOG) formed under Nigerian leadership in 1990. Since then, ECOMOG's efforts have helped end the Liberian civil war, with Nigeria providing about 6,000 peacekeepers. Through ECOMOG, Nigeria also committed nearly 3,000 peacekeepers to stabilize Sierra Leone in the wake of its 1997 civil war. Nigeria's resolve to lead and participate in peacekeeping efforts in Africa continues today, with nearly 2,000 troops committed to international efforts in Liberia, another 2,000 troops operating since 2004 in Sudan, and another 850 pledged to support African Union efforts in Somalia.[5]

While Nigerian forces have performed acceptably during these peacekeeping operations, years of military rule have paradoxically not equipped the country with a capable military.[6] By the time of President Obasanjo's election in 1999, the Nigerian military was widely blamed for the country's economic and social problems. Military facilities had decayed considerably with corresponding declines in morale and discipline.[7]

President Obasanjo began efforts to reform leadership in the military soon after taking office in 1999. He retired 150 military officers with strong political ties, published plans to downsize the armed forces by 40 percent, and promised to restructure military spending to about 3 percent of GDP,[8] which would bring Nigeria closer to the world average of about 2.5 percent.[9] However, nationwide unrest and the operations tempo of Nigerian peacekeeping efforts led President Obasanjo to put military reform plans on hold in 2001.[10]

Suspension of these reform efforts left little room for military improvement. At the time of President Obasanjo's reelection in

2003, estimates indicated that 78 percent of Nigerian army equipment was not operational and training had virtually ceased.[11] More recent studies also conclude that Nigerian military units are plagued by an inadequate technical ability, poor discipline, and a lack of training.[12] However, new acquisition efforts are promising a reformed capability.

The president of Nigeria is also the commander in chief of Nigeria's military forces. He decides when and how to employ the armed forces. Day-to-day military operations are managed by the Ministry of Defence. The chief of the Defence Staff, the three service chiefs, and the national security advisor are all appointed by the president. Each service leader's responsibilities are proscribed in Section 18(3) of the Armed Forces Act CAP A20 Laws of the Federation of Nigeria 2004.[13] These responsibilities include "command, direction, and general superintendence" as well as the organizing and training of the forces.[14] The Nigerian army, with almost 60,000 troops, commands the largest share of the military budget and resources.

The Nigerian navy and air force represent about 7,000 and 9,000 personnel, respectively, of the overall military strength of about 76,000.[15] Much of the military budget during the past several years was used to upgrade air force and navy equipment.[16] For the navy, this means refurbished frigates and coastal patrol boats, which it primarily uses to enforce security in Nigeria's offshore oil regions, a difficult challenge in light of increasing MEND attacks on offshore oil infrastructure and piracy in the Gulf of Guinea.[17]

The air force used funds to support navy maritime patrol efforts by purchasing aircraft equipped with surveillance radar and electro-optical tracking systems. Funds have also contributed to some improvement in aircraft serviceability.[18] Other air force acquisitions focus on training aircraft, helicopters, and air defense fighter aircraft, although these systems are not yet in the Nigerian inventory.[19]

The Nigerian army constitutes the bulk of service personnel with nearly 60,000 troops spread across five divisions. Much of the army's share of the defense budget has been spent on renovation of military facilities and in support of its internal security and foreign peacekeeping deployments.[20] However, the army has also taken steps to modernize equipment by coordinating with Pakistan for upgraded main battle tanks. Nigerian army equipment is summarized in appendix C.

Military Reforms

To better support the military's constitutional tasks, the Nigerian army chief of staff under President Yar'Adua, Maj Gen Owoye Azazi, has established a 10-year modernization and reform plan. His plan is designed to improve the military's professionalism and reputation while developing "a lighter, yet lethal, sustainable and

more rapidly deployable and responsible force, better able to meet the diverse challenges now and of the future."[21]

The chief of staff also intends to reduce the Nigerian army from five to four divisions "with a level of decentralization enabling divisions and brigades to plan operations and carry them out independently of Army Headquarters."[22] Nigerian efforts to modernize and adapt their military coincide with increasing international efforts to support stability in the West Africa region and represent a desire by Nigeria's political leaders to prevent future Nigerian military intervention in politics.

US Energy Security and Counterterrorism Efforts

With global demand for energy potentially increasing over 60 percent by 2030,[23] the United States as well as the international community has recognized the strategic importance of sweet crude oil production in the Gulf of Guinea off the west coast of central Africa. This focuses considerable attention on Nigeria since it controls approximately 60 percent of the proven reserves in the region.[24] Insurgent and terrorist groups like MEND and transnational criminal enterprises recognize western dependence on Nigerian oil and appear to have stepped up their attacks on oil infrastructure. They have also increased their theft of oil in order to bring western pressure on the Nigerian government to resolve grievances and to profit from sales of stolen bunkered oil.

The Nigerian military and internal security forces have struggled to deter attacks and root out both violent groups and criminal enterprises. Attacks by groups affiliated with MEND have succeeded in reducing oil production in Nigeria by almost 25 percent since 2006.[25] Several oil companies have approached the US military for assistance, stating that they fear the Nigerian government can no longer provide adequate security.[26]

Beginning in 2005, the US Navy increased its patrols in the waters off Nigeria in an effort to bolster security in the region, and plans are currently underway to implement a 10-year security and training initiative known as the Gulf of Guinea Guard.[27] The purpose of this force is to protect offshore oil production and transload infrastructure from attack by modern pirates and MEND forces.

This guard force will eventually include several West African nation navies, including Nigeria's, working in concert with the US Navy and Britain's Royal Navy. Several multinational maritime security and training deployments occurred in 2005, with maritime security conferences occurring in 2006.[28] In late 2007, the US Navy deployed assets to the region for six months of security patrols, training, and infrastructure evaluation and improvement. [29]

The United States and Britain are also conducting joint training efforts in the Gulf of Guinea. These efforts also include equip-

ment and training improvements for three Nigerian amphibious brigades in the Niger Delta.[30] Ultimately, US forces are attempting to establish a permanent local presence, possibly with a base facility and airfield on the island nation of São Tomé e Príncipe in the Gulf of Guinea.[31]

Since the 9/11 terrorist attacks of 2001, the United States is combating terrorism in West Africa. This effort began with the Pan-Sahel initiative in 2002, in which special operations forces deployed to the region to train local militaries in counterterrorism operations. Recognizing the strategic importance of the Gulf of Guinea region, this effort has expanded to include Algeria and Nigeria under the Trans-Sahara Counterterrorism Initiative (TSCTI). The TSCTI effort is programmed to receive $100 million each year through 2011.[32] For Nigeria specifically, American military forces are deployed to train and assist national forces in monitoring and securing Nigeria's northern border.[33]

Nonmilitary Technologies

According to a recent study by the RAND Corporation, there are 16 "technology applications" that, based on global demand and technical feasibility, will most likely be available for implementation in 2020 (see table 4).[34]

Although the RAND study does not address Nigeria specifically, it indicates that countries in western Africa would most likely be able to acquire only the first five technology applications: cheap solar energy, rural wireless communications, ubiquitous informa-

Table 4. RAND technology applications for 2020[35]

Technology Applications	RELEVANT CONDITIONS				
	Rural Economic Development	Economic Growth	Improve Health	Improve Environmental Conditions	Influence Governance and Social Structure
Cheap Solar Energy	X	X	X	X	X
Rural Wireless Communications	X	X	X	X	X
Ubiquitous Information Access		X	X		X
Genetically Modified Crops	X		X	X	
Rapid Bioassays		X	X		X
Water Purification & Decontamination	X		X	X	
Targeted Drug Delivery			X		X
Cheap Autonomous Housing	X		X		X
Green Manufacturing			X	X	
RFID of Commercial Products		X			X
Hybrid Vehicles				X	
Pervasive Sensors		X			X
Tissue Engineering		X	X		X
Improved Diagnostic/Surgical Methods			X		
Wearable Computers		X	X		X
Quantum Cryptography		X			

tion access, genetically modified crops, and rapid bioassays. The RAND study differentiates between a country's ability to acquire a potential technology and its ability to implement it. In the case of countries in western Africa, RAND rates their overall ability to implement these relevant technologies as low.[36]

The interests of the United States and the Nigerian government represent concerted efforts to improve both governance and human services while reducing crime and securing Nigerian national resources. These efforts increase the likelihood that technologies which impact these areas may be acquired and used, including technologies that are not in the RAND top five list, as part of international assistance efforts in Nigeria and other nations in West Africa. For example, pervasive sensors would greatly enhance energy security and counterterrorism efforts while immunotherapy, number 34 on the RAND list due to uncertain technological progress, would facilitate HIV/AIDS and other pandemic treatment efforts.[37]

Military Coup

Nigeria endured several military coups from the 1960s through the 1990s. There are at least three indicators that typically precede a military coup. These include civilian dependence on the military due to either immediate or long-term crisis, dependence upon the military for political survival, and public dissatisfaction with the federal government.[38] Afrobarometer data from 2005 suggest Nigeria may have already started down the path towards another military coup since the population's satisfaction rating with the current and previous civilian government was dropping below the level recorded with the previous military regime.[39] The Afrobarometer data from 2008 was no better, with nearly 89 percent of the Nigerian people perceiving government officials are corrupt and fewer than 30 percent believing their electoral process was fair.[40]

Likewise, with areas in the Niger Delta largely ungovernable, no end to ethnic unrest in sight, and a shaky amnesty and mediation effort to forestall MEND attacks against oil infrastructure and workers ready to fail, the Nigerian government remains dependent on the military for internal security and stability. The third indicator, political survival, is not currently a significant threat for Nigeria since the country has taken care, through its participation in intra-African organizations like the African Union and Economic Community of West African States (ECOWAS), to help stabilize the West African region.

Conditions in Nigeria have not resulted in a coup in several years. Much like anticipating successful democracy in Nigeria, Afrobarometer data may well be the leading indicator of conditions forming for a potential coup. Declines in corruption and human development indices will likely alleviate some public dissatisfac-

tion, thereby reducing the possibility of a coup. However, avoiding yet another coup is not a sufficient or reliable measure of Nigeria's political situation, internal stability and security, or the strength of the nation. It is not a guarantee that Nigeria will be a successful democracy or remain a viable state.

Civil War

Prior to 1960, the British recognized that the different ethnic regions of Nigeria might not be governable as a single unified nation. Although somewhat tolerant of the limited autonomy granted during the long years of British rule, the fiercely independent Biafra tribe rebelled against the central government; ethnic tensions eventually erupted in the 1967 Biafra civil war. Even in 2009, little has changed for Nigeria in this regard.

According to Karl Maier, author of *This House Has Fallen: Midnight in Nigeria*, "Nigerians from all walks of life are openly questioning whether their country should remain as one entity or discard the colonial borders and break apart into several different states. Ethnic and religious prejudices have found fertile ground in Nigeria, where there is neither a national consensus nor a binding ideology."[41] While reform efforts might improve conditions in Nigeria, it is unlikely any effort currently envisioned will make the population any less polarized in one generation, especially those from the proud Igbo, Hausa, or Yoruban tribes, who have a fierce loyalty to their respective tribes and traditions.

Militant groups often form to protect specific geographic areas or communities or to press grievances for indigenous people when governments fail to provide expected services and security.[42] The conditions for these scenarios are already present in Nigeria, with poverty levels in the northern areas nearly double those in the southern regions.[43] Any downturn in the Nigerian economy, particularly if regionally focused, has the potential to escalate into civil war.[44] Given that development generally progresses more rapidly where infrastructure already exists,[45] overall economic improvement in Nigeria may be seen as favoring the southern region.

Military Summary

Whether Nigerian governance will continue to deteriorate and lead the country inexorably toward a military coup and, perhaps, civil war is unknown. Where Nigeria falls within the "spectrum of failure" will determine if the reforms implemented by the current minister of defense, General Azazi, take hold or if the military remains marginally capable as it has for the last few decades.

With reductions in corruption and criminality and with strategic investments to diversify the economy and meet basic human needs, Nigeria could slowly improve, thereby reducing the possibility of

failure. Should the people gain confidence in Nigerian governance, then the Nigerian military might receive the resources and support it needs to reform and function as a force promoting internal security and regional stability without threatening the political process. If the people lose faith in their current democratically elected civilian government, it is then possible that a weakened military might feel emboldened to attempt a coup and, if successful, would likely fare no better than it has on the previous five occasions where it seized and controlled the government.

Long-term international interest in the region will provide the Nigerian military opportunities for increased professionalism and new capabilities. While this does not guarantee success, recent cooperation with the British and United States has made noticeable improvements.[46] In almost any scenario, the Nigerian military will, with government and international support, continue to acquire new capabilities as they have in the past. This means, as illustrated in appendix C, Nigeria's army, air force, and navy will continue to be characterized by relatively common, ubiquitous, although dated, military equipment. Access to advanced technology and better military equipment is desired by Nigeria's military and could, with proper training and care, enhance the Nigerian military's status in its traditional internal security and peacekeeping roles.

In particular, surveillance and situational awareness technologies will strengthen the Nigerian military's ability to provide security for its populace. It is unlikely, however, that even continuous national growth in a failed-state scenario will produce significant gains in Nigerian power projection capability. Other than prestige, there are currently no threats or significant or vital interests outside Nigeria's borders that would drive Nigerian forces to involve themselves beyond their current peacekeeping efforts.

Alternately, civil war in Nigeria would almost certainly erupt along the ethnic and religious divides between the northern and southern regions of the country—it would, in effect, shatter the country. Military forces involved in this type of civil conflict would normally be expected to fight for their country with perceived moral justification, employing any and all means to achieve their goals.[47] Given 350 different ethnicities and a large population whose loyalties to tribe and religion are often stronger than national loyalties, the Nigerian military may find these same loyalties overwhelming any moral justification and rapidly thinning its ranks. Expecting technologically advanced international involvement, opposing forces might also adopt violent, "neo-absolutist" techniques, where the government exercises complete and absolute power to defeat the will of its enemy using any means.[48] Such techniques can only be employed if the forces are sufficiently strong to use them.

Initial capability of forces involved in civil wars would depend on how far Nigeria had progressed, or failed to progress, in reforming

its military prior to the nation shattering and devolving into civil war. Even from a state of relative governmental and military disarray, however, forces would normally be expected to recruit new forces and rapidly develop better capabilities.

During the 1967 Biafran conflict, Nigerian federal forces grew from about 15,000 at the start of the war to a total of nearly 250,000.[49] Both sides of the conflict were able to obtain various levels of international support,[50] while indigenously producing some limited weaponry.[51] However, in this case, only one region was in rebellion against the larger state. In a situation where multiple ethnicities and religious groups are fighting each other, it is possible the military may not be able to recruit people, build its forces, secure the country, and restore the state.

A civilian government in charge of a functioning state who harbors doubts about the loyalties of its military may limit military reforms to equipping its forces with modern weapons and providing it with a training system that promotes professionalism, inspires a degree of loyalty to the state, and enhances readiness. Given Nigeria's relatively recent history of military coups, it is likely most civilian governments will be reticent to make the military too powerful. However, these same civilian governments recognize Nigeria must have a competent, credible force in order to protect the nation's oil infrastructure and ensure the survival of its single commodity economy.

Insurgent attacks and anything else threatening oil production reduce revenues that can be used to "buy" political loyalty and reform the military. A professional military is necessary to help preserve order within Nigeria's 36 disparate states. Whether the current military reforms take hold and Nigeria's armed forces prove equal to the daunting and difficult challenges the nation faces remain to be seen.

Notes

1. Peters, *The Nigerian Military*, 176.
2. "Lt Gen M. L. Agwai (Nigerian chief of army)," 14.
3. Jane's Information Group, "World Armies, Nigeria."
4. Peters, *The Nigerian Military*, 38.
5. Jane's Information Group, "World Armies, Nigeria."
6. Ibid., 5.
7. Maier, *This House Has Fallen*, 291–93.
8. Jane's Information Group, "World Armies, Nigeria."
9. Shah, "World Military Spending."
10. Jane's Information Group, "World Armies, Nigeria."
11. Ibid., 5.
12. Ibid., 2.
13. Nigerian army Web site, http://www.nigerian-army.org/index.php?option=com_content&task=view&id=19&Itemid=30 (accessed 22 July 2008).
14. Ibid. The navy, air force, and police Web sites are all accessible from the Nigerian army Web site.
15. US Department of State, "Background Note: Nigeria," 6.

16. Jane's Information Group, "Procurement, Nigeria," 1.

17. US Department of State, "Background Note: Nigeria," 6.

18. Jane's Information Group, "Procurement, Nigeria," 1.

19. Ibid., 3.

20. Ibid., 1.

21. "Gen O. A. Azazi (Nigerian chief of defense staff)," 14.

22. Ibid.

23. International Energy Agency, *World Energy Outlook 2007*, 41.

24. Lubeck, Watts, and Lipschutz, *Convergent Interests*.

25. Nigeria/Africa Masterweb News Report, *Chronology of Nigeria Militants' Attacks*, 25 June 2008, http://www.africamasterweb.com/AdSense/Nigerian Militants07Chronology.html (accessed 28 June 2008). The situation was no different in early 2009, with more than 600,000 barrels of oil per day out of production, which was about 25 percent of the Nigerian total. "FACTBOX—Nigeria's Oil Production Outages," *Reuters News Agency*, http://www.reuters.com/article/rbssIntegratedOilGas/idUSLH94524020090317 (accessed 27 May 2009).

26. Lubeck, Watts, and Lipschulz, *Convergent Interests*, 19.

27. Ibid., 16.

28. Volman, *U.S. Military Programs in Sub-Saharan Africa*, 6.

29. Crawley, "U.S. Navy Plans Six-Month West African Training Mission," 1.

30. Lubeck, Watts, and Lipschulz, *Convergent Interests*, 19.

31. Ibid., 17.

32. Volman, *U.S. Military Programs in Sub-Saharan Africa*, 3.

33. Lubeck, Watts, and Lipschulz, *Convergent Interests*, 17.

34. Silberglitt et al., *The Global Technology Revolution 2020*, xvii.

35. Ibid.

36. Ibid., 94.

37. Ibid., 219.

38. Peters, *The Nigerian Military*, 12.

39. Logan, Fujiwara, and Parish, *Citizens and the State*.

40. Institute for Democracy in Africa, "Public Opinion and Local Government."

41. Maier, *This House Has Fallen*, xx.

42. Hammes, "Fourth Generation Warfare Evolves," 16.

43. Angelica Carson, CIA, interview by the author, 26 October 2007.

44. Bannon, Ross, and Collier, *The World Bank*, 20.

45. Silberglitt et al., *The Global Technology Revolution 2020,* 39.

46. Jane's Information Group, "World Armies, Nigeria," 5.

47. Hammes, "Fourth Generation Warfare Evolves," 17.

48. Lonsdale, *The Nature of War in the Information Age*, 75. Neo-absolutist techniques are violent, brutal tactics designed to defeat the will of a more competent, technologically advanced enemy. The techniques used against American forces in Somalia serve as an example of neo-absolutist methods.

49. Peters, *The Nigerian Military*, 118.

50. Ibid., 119 for federal forces and 126 for Biafra.

51. Ibid., 181 for federal forces and 125 for Biafra.

Nigeria in 2030: Paths to Failure

Col Christopher J. Kinnan

This chapter posits potential future events that could lead to Nigeria's catastrophic failure in or near the year 2030. Once dubbed the *Giant of Africa*, Nigeria's lack of unifying national identity, history of corrupt governance, religious and cultural schisms, and shifting demographics may cause the state, over time, to break apart.[1] The factors discussed below describe current and potential deteriorating trends in cross-cutting human social issues. Figure 9 graphically depicts how these various trends could coalesce into a situation where Nigeria as a state could catastrophically fail.[2]

This chapter is not a specific prediction of the future or a depiction of a state of affairs that will and must occur. It is a discussion of how the trends occurring in Nigeria since its birth as a nation in 1960 could, under the right conditions, lead to its failure. The details underlying the various trends can be used to develop strategies or war games to avoid or test potential responses to the very calamity painted below.

These details also allow for a specific discussion of what types of resources are required to stabilize a failed state, in this case, Nigeria. In the sequence of events discussed below, Nigeria's history, diverse culture, ethnicity, religion, and corruption combine to drain the national treasury. The empty treasury prevents the government from providing for people's basic needs, as it blatantly diverts much of the nation's oil treasure to buy support from criminal family enterprises and business oligarchs.

By 2030 the social contract between the weakened federal government and the Nigerian people is effectively broken. An attempt to restore confidence through a national election sweeps the electorally dominant Islamic political structure into power. Buoyed by its electoral success, the new government threatens to ruin family criminal enterprises and confiscate the wealth of the business oligarchs. Its ultimate end state is to rebrand Nigeria as an Islamic republic. The culmination of these negative trends and political actions sparks a violent reaction from the non-Islamic population, the criminal family enterprises, and the oligarchs. In this case, the state fails.

The disparities and traditions of Nigeria's tribal and colonial past have created significant social tensions that have made establishing an integrated, coherent, and legitimate government difficult under the best of circumstances.[3] By 2030 Nigeria's endemic corruption and the predatory economic practices of the oligarchs and their associated enterprises may well deplete the financial re-

Figure 9. Cascading failure of the Nigerian state (2008–2030)

sources for economic diversification and critical human and industrial infrastructure projects. This depletion could result in a loss of confidence and a lack of capital investment from the World Bank and the Millennium Challenge Corporation (MCC).

Under such circumstances, a devaluation of Nigeria's credit rating by Goldman-Sachs and other credit-rating organizations is certain. Were Nigeria to default on its large and growing international debt, the resulting financial crisis would erode what little credibility the government has internally and threaten to destroy the federal system. These events would promote destabilizing rumors of a military *coup d'état*, as such crises have so often in Nigeria's past.

If this corruption cannot be noticeably reversed, the Nigerian government would likely lose legitimacy with its diverse people and, with the exception of the 12 Islamic-dominated states in the north, no longer function at the federal and state level. Between 2008 and 2030, tribal ties throughout the country will largely be supplanted by loyalty to Islam in the north and emerging predatory family enterprises in the south.[4] Religious ideology and Shar'ia law in the north, combined with its as yet unflexed electoral power of its disproportionately large Islamic population and growing youth bulge, will prove stronger than any loyalty purchased for a price in the south.

By 2030 Nigeria's robust population will have an average age of less than 20 years and a life expectancy of less than 60 years. As such, Nigeria will likely have many disaffected and underemployed young people.[5] It already has the sixth largest Muslim population in the world, with a nearly equal balance of Muslims and Christians.[6] This balance is currently at a tipping point because of the faster population growth in the Islamic north, which is ruled under Shar'ia law.[7] By 2030 Nigeria's Islamic population will comprise a majority of the federal electorate; this will precipitate a fundamental change in Nigeria's domestic political situation.[8]

In 2030, with a population of more than 225 million people, 350 ethnicities, and multiple languages, Nigeria's negative social trends may become ever more destructive.[9] What impact human and social factors have on the strength of any nation is largely determined by its own people. If the social contract between government and its people remains relatively strong—where the government rules justly, invests in its people, and provides economic and political freedom—national survival is reasonably assured. Such favorable conditions become paths for success.[10] However, if the government fails to invest in its people and rules through fear and intimidation and corruption becomes corrosively endemic, the bonds of trust between the government and its people could become irreparably weak. These negative trends in crosscutting conditions then become the path to failure.

Crosscutters

The crosscutting issues are presented here in the context of what might happen in 2030 if current trends hold or Nigeria reverts to past practices. The examination and discussion herein are not prescriptive, but rather present a possible, plausible *future* history of Nigeria.

Culture and Ethnicity

Tribal culture and ethnicity are strong forces in Nigerian social life. Respect for elders, political affiliation, ethnicity, demands for educational systems that promote tribal language and history, and social welfare systems that operate within tribal familial or ethnic communal structures have long dominated modern Nigeria's social construct.[11] Although 2003 proved to be a watershed year in the level of violence throughout Nigeria, explosive episodes of factional fighting will likely continue at a strong pace for at least another decade until reform measures instituted in 2008 begin to have a visible effect.[12] Even then, strong tribal allegiances combined with exploitable ignorance and perceived wrongs will spawn episodic violence between ethnic groups well beyond 2030.

By 2015 the leaders of the moderate Sokoto caliphate will likely bring a firm sense of social order throughout the 12 Islamic-dominated states of the north. Over time, tribal culture in the north will be subsumed by the population's growing devotion to the tenets of Islam and Shar'ia law. The thriving culture of the Sokoto caliphate could enjoy a renaissance by 2020, when it will likely become a major Islamic center on the African continent—one with great appeal to sub-Saharan Muslims.

If successful, government reforms could result in a reverse diaspora with the return of a large number of educated Nigerians who long to return to their homeland. These people left the country of their own volition and most often took up residence in Europe and the United States. They will form the core of a new *intelligentsia* that will use advanced communications to champion democracy, social welfare, education, and the acceptance and integration of new technology, especially among the youth. Their strong influence will manifest itself, over time, in increased political factionalism and activism as the population seeks government redress for past perceived and real grievances. This influence will create tension with the Islamic north. By the time of the national election in 2027, these factions may become powerful enough to spark nationalistic tendencies in the north and the south that could rapidly debilitate the federal system.

If government reforms are not successful, violent attacks against critical petroleum and natural gas infrastructure by MEND and their supporters will likely continue. This, combined with the failure of the central government to meet the basic needs of its indig-

enous people, would intensify calls for new elections and the ouster of the national government. By 2030 these clarion calls will be carried throughout the country on advanced communication networks and amplified through social-networking systems, all of which would further erode tribal social cohesion and undermine the legitimacy of the elected government.

Either way, technology will transform the politics of business. By 2015 Next Generation Internet (NGI), cloud computing, and broadband cellular personal data systems will be extensively used by a class of technologically savvy oligarchs in the south. They will, through their various (criminal) enterprises, control the service sector and telecommunications industry not only in Nigeria but also throughout West Africa. Through payoffs and lucrative employment opportunities, they will garner the support of urban youths which, in turn, will further erode respect for ethnicity and tribal culture. By 2030 tribal identity and culture may denigrate to the status of gang affiliation.

Religion

Throughout modern Nigeria's history, religious fundamentalism has created fear and violent conflict. Although Islamic fundamentalism has threatened to supplant traditional Islam throughout the world, Nigeria's Sokoto caliphate will likely remain firmly opposed to any form of jihadist extremism that tries to establish itself in the region or challenge the caliphate's growing influence.

The caliphate's arguably moderate interpretation and application of Shar'ia law in the 12 northern Nigerian states will likely prove a stabilizing force, bringing order and structure along the vast Sahel region of the southern Sahara Desert.[13] By contrast, Nigeria's Christian south has both benefited from biblical morality and suffered from gang-like criminality as evidenced by the rise of vigilante groups such as the Bakassi boys, who sought exact justice for real and perceived injustices.[14]

By 2020 the continued consolidation of wealth in the hands of a few southern oligarchs may succeed in "professionalizing" this criminality. With religious passions contained and these criminal elements functioning as private commercial family enterprises, the likelihood for religious conflict between the Islamic north and the Christian/animist south will be reduced.

As the Muslim population is now the dominant population in Nigeria,[15] the Sokoto caliphate will take pains to contain the passions of its youth by inculcating them with their interpretation of the basic tenets of Islam while commanding respect for Shar'ia law and Nigerian federal law. The result of the careful cultivation of their large and growing youth population is stability and religious homogeneity in the north. Based on the caliphate's political calculus, this stability is necessary for the Islamic leaders to implement

a new grand political-theocratic strategy, which will bring them full political power and the opportunity to establish an Islamic Republic in the scheduled 2031 elections.

Despite successful economic reform efforts begun in 2008, some religious and ethnic violence will continue to flare. Nigeria's National Bureau of Statistics will track this violence and periodically report its findings to the UN. Although Nigerians will continue to question whether Nigeria should stay together as one country or be divided into separate nations along ethnic and religious lines,[16] the government, with the support of the Sokoto caliphate and the southern oligarchs, will likely discourage calls for any referendum that divides Nigeria.

Public disaffection should abate as the Sokoto caliphate's power and influence expand throughout Africa, especially if a more radical Middle East caliphate is established on the Arabian Peninsula.[17] Should such an event occur, it may bring about an Islamic schism similar to the Protestant Reformation in the fourteenth and fifteenth centuries. The Sokoto caliphate will seek to expand its power and influence throughout Africa by promoting its moderate religious theology and African virtues. Its rising influence should result in declining religious violence. This will give rise to a perception of internal security and harmony and, in turn, mitigate secessionist fervor throughout Nigeria.

The leaders of the Sokoto caliphate will maintain firm control of social welfare, education programs, and the legal system in northern Nigeria. Their power and influence will hold the passions of their rapidly growing and youthful Islamic population in check, easing religious and ethnic tensions. In the south, Christian faiths will still be practiced in various forms by approximately 30 percent of the population.

Animism in the south may attract support from violent eco-terror groups such as the Earth Liberation Front, who may actively support MEND with money and training. While it is likely other ethnic, religious, and environmental insurgent groups in Nigeria will attempt to form between 2008 and 2030, these groups will, in most cases, fail after inception; some could be annihilated or subsumed by MEND, while the remainder may be defeated by the Nigerian army. In the event amnesty programs fail and the government fails to live up to promises made to address grievances, MEND will resort to violence to press its claims for economic fairness and remediation of the ecologically damaged areas in the Niger Delta.

The Influence of Technology

With the addition of almost 600 million people[18] since 2005, Africa will prove itself a lucrative market for industries that offer inexpensive computer systems, quantum computing, virtuality,[19] wireless broadband cell and satellite phones, cloud computing,

and NGI systems.[20] By 2030 social networking will be a part of daily life in Nigeria, particularly among the large youth population. Its popularity will be regularly exploited by the major business owners, mainly the southern oligarchs who, through their family and criminal enterprises, will come to dominate all advanced communication and computing technologies in West Africa and perhaps on the African continent.

These commercial communications enterprises will invest heavily in technologies that protect their ability to control cyberspace, while denying its use to others. These enterprises will have an incentive to quietly recruit and support an organized community of hackers and their own version of cyberwarriors (ögajun-ërô).[21] Such forces could launch cyberattacks against any national or international organization that may threaten their criminal and business interests. In addition, by 2015 such cyber capabilities could be used to probe international oil consortia in a bid to gain insider information so as to better manipulate the price of oil and maximize profits.

These likely investments in advanced telecommunications will create a regional hub for modern services that the southern oligarchs will control. They will have the ability to develop a pool of labor resources, which will give them advantages in protecting their regional market and helping their enterprises grow. By 2030 Nigeria could become a center of the telecommunications revolution in Africa and one of the leading information societies in the world.

Easy information access and social networking will undercut the power of traditional news media, including those outlets controlled by the central government. The popularity of social networking sites and Internet blogs such as Global Voices Online will help the oligarchs in the south and the caliphate in the north preserve their respective holds on power and expand their influence.

Eventually, these will likely lead to a clash of power bases between the Christian southern oligarchs and the northern Islamic caliphate. Here, the clash will be one based on a quest for political and financial power; moral and religious issues will be used to stimulate the passions of their respective followers. Nigeria's southern state politicians and politically powerful families have historically retained a disproportionate share of the oil wealth. This entrenched graft and corruption mean that the leaders in the south have a strong disincentive to relinquish power to those who would reward them less well.

Medical technology, power generation equipment, water treatment materials and techniques, and even weaponry will also prove to be lucrative ways of making money. Since 2009 the United States and the United Kingdom have transferred older vessels from their respective fleets, while providing training and equipment from their own navies, to Nigeria.[22] Nigeria's newly refurbished frigates and coastal patrol boats will be easily integrated into the US Navy's

Seabasing Joint Integrating Concept, which stresses forward deployment of US naval forces to support national objectives in areas where the American forces are denied basing or access.[23]

This operating concept stresses the importance of establishing habitual working relationships with the navies of nations in the deployed region to control unstable areas that are home to critical national resources; this has often been described by the US Navy as the *1,000-ship navy*. Although they routinely patrol the Gulf of Guinea with the navies of the United States and the United Kingdom, after years of support, the Nigerian navy should be postured and provisioned to lead security enforcement operations in Nigeria's offshore oil regions by 2015.[24]

The Nigerian air force will use its funds to support navy maritime patrol efforts, purchasing aircraft equipped with surveillance radar and electro-optical tracking systems. Although expensive, these systems will perform well as long as funds are available to purchase new equipment, improve aircraft serviceability, and train crews.[25] Without these funds, mission-capable rates for the Nigerian air forces' current fleet of advanced aircraft systems will likely decline after 2020, which will then require greater effort on the part of Nigerian surface forces.[26]

International Terrorism

As noted by the ICG in 2007, the sub-Saharan region of Africa is not guaranteed to become an area of widespread terrorist activity.[27] In fact, institution of the Sokoto caliphate's moderate interpretation of Shar'ia law in the northern Nigerian states which border the Sahel could make this region safer than the areas in and around the Niger Delta.[28]

By 2020 the Niger Delta region may become the *cause célèbre* for international environmental groups, given the extraordinary level of ecological damage. Radical environmental groups operating through social networking may funnel money and weapons to MEND forces to help them recruit new followers to take direct action against petroleum facilities and infrastructure.

The power of social networking by 2030 will likely enhance the visibility of MEND issues and actions. The more spectacular the attacks, the greater the international focus on MEND and, in turn, the easier it is for outside groups to raise funds and garner support for MEND's causes and actions. Having successfully reduced oil production by 25 percent since 2008, MEND has proven that it is a force to be reckoned with.[29] It is likely that the government will attempt to undertake some reforms to address some of the grievances of the affected tribes in the Niger Delta region, which may, over time, serve to undermine MEND's appeal. However, the reduced resources available for these reforms, combined with Nigeria's culture of institutional corruption, could limit progress on

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these issues. This is especially true should the southern oligarchs be successful in consolidating their power behind a slate of national leaders they control. To maintain their hold on power, the oligarchs may use oil profits to "buy off" MEND with tribute payments rather than investing in technology and infrastructure to remediate the ecology and address grievances. Although tribute payments from the central government may temporarily reduce MEND actions, such payments will, in the long term, provoke greater demands for more money and increased calls for greater government action to address grievances. These will become the price of MEND's forbearance. In response, the southern oligarchs who provide tribute payments will demand additional resources from the elected government. By 2025 the government will be forced to source these funds from other areas of the government and the economy, including funds dedicated to infrastructure and human services. Failure to pay will be punctuated by a series of small yet potent attacks on critical oil infrastructure in an attempt to produce a significant oil shock and bring international pressure on Nigeria's government.

Any attempted inroads into West Africa by al-Qaeda or similar jihadist Salafist groups will likely be successfully thwarted by a resurgent Sokoto caliphate which may issue fatwas rejecting the violent jihadist ideology of these outsiders. The caliphate may go so far as to brand any attempt by al-Qaeda to either sanction attacks or destroy Nigeria's oil production capacity as an attack on the Islamic people of northern Nigeria, since the north will continue to depend on oil revenues for basic goods and services beyond 2030.

Because of its interest in maintaining a stable Nigeria and its need for Nigerian oil, the United States will continue aggressive measures to combat terrorism in West Africa and in the Pan-Sahel region. The TSCTI will continue to receive more than $100 million each year well beyond 2015. Any attempt by a corrupt government to siphon these funds off for tribute or loyalty payments will likely result in funding being curtailed or stopped.[30]

Criminality

Criminality has long been institutionalized in Nigeria, even before its founding. Criminality experienced tremendous growth between 1993 and 2009, especially in the Niger Delta region and in Lagos, Nigeria's largest city. Attempts to steal oil and refined gasoline directly from pipelines and storage tanks still result in extensive damage to oil infrastructure and large loss of life among the poor and add to the ecological disaster in the Niger Delta region. Escalations in local and international criminal activity make the entire region, including off-shore facilities, ungovernable for brief periods of time. Even in 2030, several major oil companies will fear losing their ability to operate in the area.[31] Despite tribute payments, MEND conducts armed

attacks and kidnappings to achieve their goal of cutting Nigerian oil production and creating periodic oil shocks for greater gain.

Generous donations of money, training, social networking support, weapons, and support equipment provided by groups like the Earth Liberation Front will likely keep MEND viable. By 2030 MEND should be able to maintain a well-trained force of up to 10,000 fighters who will conduct raids against national oil infrastructure, both on and offshore. They will likely prove more than equal to Nigerian forces stationed in the region.

Nigeria continues to brand MEND a criminal element; thus, the Nigerian army, with the help of the Nigerian air force, stations up to 15,000 troops to combat MEND forces in the Niger Delta region. Any interruption in funding for training Nigerian troops or a decision by the central government to keep Nigerian forces in a weakened state to prevent them from seizing power from a corrupt government will harm the army's ability to recruit, train, and retain forces in the region.

Any move by MEND or other militia forces in the country to launch an all-out attack against an untrained, underpaid, and weakened Nigerian military, particularly in 2030, will likely result in Nigerian troops abandoning their positions and rejoining their tribes and families. In many cases, these disaffected troops will join family, tribal, or religious militias and could turn against the central government.

In the face of a growing criminal militia movement and with oil profits threatened by growing demands for tribute, increased corruption, and declining oil revenues, the Nigerian government may seek assistance from ECOWAS and the Organization of African Unity. While these organizations may offer moral support, the difficult logistics posed by the region and the uncertainty generated by the 350 ethnicities and multiple religious beliefs may drive the central government to seek support and assistance through the UN and other international organizations. These organizations may offer monetary assistance and could seek a negotiated settlement.

Such a move on the part of the central government will likely be viewed as a weakness and could embolden various militias and MEND to go on the offensive. Ill-equipped to deal with the well financed and trained MEND forces, the government could call for an early election in the hope it would present a new opportunity to negotiate a compromise, maintain territorial integrity, and restore a strong central government to power.

Corruption

Like criminality, corruption at all levels has frustrated the reform efforts of Nigerian leaders since 1960. Bribes, kickbacks, favoritism, nepotism, and other similar corruptive influences and practices will continue to permeate all personal, business, and gov-

ernment transactions. These act as a hidden tax that robs the Nigerian people of resources to improve their health, education, and quality of life.[32] The national security apparatus is similarly corrupt. Federal and state police forces continue to extract patronage or bribes from the Nigerian citizenry and even tourists.[33] Poor pay, lack of education, and limited training for security forces to accomplish their job will remain the proximate cause and exacerbate corruption. These problems are expected to continue well beyond 2030.

The INEC, NEITI, and EFCC combined with strong use of *419* provisions and a more transparent distribution of resources throughout Nigeria provided teeth and structure for leaders to implement anticorruption measures in 2008.[34] But given Nigeria's intractable historic penchant for corruption, it is likely the efforts of these organizations will meet with very limited success. By 2030, even with consistent determination by potentially five successive Nigerian governments producing a measurable decline in institutional and client-patronage corruption at the local level will still erode a significant measureable percentage of national GDP each year.[35]

Rapid population growth will likely be matched by growth in international criminal activities as internal anticorruption measures drive the oligarchs to look elsewhere. By 2030 even the so-called constructive political opposition will openly court influence among international conglomerates and Nigeria's industrial tycoons—the oligarchs. Political parties, with the active yet quiet support of the oligarchs and even the caliphate, will buy off constituents who will turn out in huge numbers to support their slate of candidates. In the face of increasing corruption in federal and state institutions, it is possible the caliphate will restrict efforts by Islamic political leaders to gain power for a time, in order to highlight the corruption of the southern leadership. Its intent will likely be to allow these non-Islamic leaders to continue to abuse their power so that they discredit themselves in the eyes of Nigerians and in front of international financial and good-governance institutions like Transparency International.

By 2030, with criminality and corruption permeating all facets of government at levels unimaginable by today's standards, the people will lose faith in their government. This could stoke ethnic nationalism across the country, particularly in the Islamic north. With discontent among the then-Islamic majority reaching a fever pitch, the stage will be set for wholesale political change.

The State of the Society

The UN Development Program's HDI, which considers relative levels of health, education, and standards of living, will be among the first to note the reversal of anticorruption measures.[36] Declines in federal government spending on health care and education will

likely be the result of diversion of funds through client patronage from federal programs.

The impact of this loss of funds in social programs will be most directly felt by the poor and the large youth population, especially in urban areas in the south and to a lesser extent in the north. Poor health-care funding with a breakdown in electrical, sewage, and water-treatment services will lead to increased disease incidence, particularly in the cities. Squalor in high-density population areas like Lagos will increase, as will social disorder.

Health Care and Medicine

The WHO monitors disease morbidity, mortality, and the state of national health-care programs available to serve the population. Nigeria achieved a low point in 2006 when it was found to be one of 30 countries across the globe with critical shortages of health-service providers.[37] Reforms imposed in 2008 brought some new emphasis on improving health care in Nigeria. This increased emphasis could bring limited improvements in infant mortality rates, although they will remain high in the southeastern part of the country, in large measure, because of very poor health services and the disastrous state of the ecology in the Niger Delta region. Multiple disease vectors including poor water quality, uncontrolled insect populations, petrochemical contamination, and pollution of all sorts will continue to plague this ecologically devastated region. These issues, in combination with the rise in criminality in the south and a large disenfranchised urban youth population, will likely result in an increased incidence of drug and other addictions.

To stem these problems, the Nigerian central government will continue to make limited investments in health and education services. With WHO and other assistance, it is possible the HIV infection rates may be held to a maximum 5 percent prevalence, with AIDS cases peaking before 2020 and then slowly declining.[38] HIV infection rates and prevalence could be arrested by the introduction of new retroviral drugs.

Tuberculosis rates of infection should remain in line with other states in West Africa since these nations do benefit from UN and US support for antimalarial programs. As in 2009, drug-resistant strains of the disease will still be found in densely populated urban areas.

Malaria treatment in the form of new drugs and other intervention methods including mosquito netting and insecticide spraying could bring down infection rates. Given that malaria is endemic to the region, any precipitous decline in health-care funding will immediately reverse any improvements. Any decline in health-care funding could also restart a "brain drain" of doctors and nurses, including those with pediatric and epidemiological specialties.

More troubling is that international donations of vaccines against diseases like cholera, typhoid, tuberculosis, and HIV as

well as medicine and equipment normally provided by intergovernmental organizations and nongovernmental organizations (NGO)[39] may face major distribution delays caused by poor roads and a lack of basic human services including electricity, water, and sewage treatment. In addition, distribution of health care will be affected by corruption, especially in the south, where graft will siphon resources away from these programs. Further, MEND's growing influence may preclude distribution in some areas due to conflict or the confiscation of medical resources. In the Islamic north, health-care delivery is likely to be stronger since the Sokoto caliphate exerts a strong central influence over social welfare programs in the 12 Islamic states.

Education

In 2009 wholesale educational reforms instituted by President Yar'Adua (see appendix A) initially helped Nigerians meet the minimum acceptable international standards of education regardless of ethnicity, sex, or religion. Special emphasis is given to educational depth through tutoring and strong investments of resources in teaching science and technology. Most Nigerian states are adopting the reforms, although the leaders of the Sokoto caliphate will likely continue to reject reforms perceived to violate Islamic norms. Given the inconsistency of support for and application of education standards, by 2030 it is likely Nigeria will be unable to honor its commitment to the African Union to invest 1 percent of its GDP in science and technology instruction and development.

By 2030 the education of young girls should be routine throughout the country, with most receiving a primary school education. Secondary education of girls will be more common throughout the south. The Islamic north will likely provide men their education through religious schools controlled by the caliphate. Access to secondary and higher education will remain much more accessible for men than women. Leaders will likely allow a select, though small, number of women to pursue secondary and higher education in Islamic studies. NGOs will attempt to fill gaps and will try to help the central government establish and enforce national education standards and deliver standardized curricula.

Literacy rates throughout the country should rise by 2030, although it will likely be measurably lower in the Islamic north where women will continue to lag behind men. Religious instruction will form the core of the curricula in the Islamic states. The caliphate will impose restrictions on what can be read—the Koran and the Syrah—and taught in Islamic schools.

As it did in 2002, the Central Bank will continue to warn that any reduction in education funding and standards will elevate poverty rates.[40] The failure to fund schools could cause them to close.

A lack of education in the large youth population in 2030 could drive them to other outlets—criminality, drugs, and violence.

Population and the Youth Bulge

By 2030 Nigeria's population will reach 225 million people, with much of the growth in the Islamic north.[41] Nigeria will likely be the sixth most populous country in the world.[42] The population of the entire African continent will grow to approximately 1.5 billion people.[43]

By 2030 the Islamic north could account for almost 65 percent of Nigeria's population.[44] The voting-age population in the North is expected to comprise more than 50 percent of the national electorate.[45]

Nigeria's population will be increasingly urban. In the largely Christian south, urbanization will continue to rise, particularly in Abuja and Lagos. By 2030 roughly two-thirds of the population will live in urban centers, a number that may rise to 83 percent by 2050.[46] By 2030, Lagos could be the 11th largest city in the world and, according to the UN, could become the seventh largest city by 2050. Other cities throughout the country have seen their populations grow exponentially as tribal ties for the young give way to the popular appeal of modern technology and the need for work. Uncontrolled growth in urban areas will likely outpace the government's ability to provide basic electrical, water, and sewage services. This will exacerbate development problems as well as health issues.

The youth bulge will dominate population demographics particularly in urban areas of Nigeria.[47] By 2030 the average age in Nigeria will be less than 20 years, and life expectancy could increase by an average of 10 years. These two factors will increase the working-age population, which will stress Nigeria's ability to provide basic human services, health care, and employment for large segments of its youth. As a result, this large, young, mostly urbanized, and unemployed population will create a pool of disaffected youth who will be easily recruited by antisocial groups with a propensity for criminality and violence.

International criminal enterprises owned mostly by the southern business oligarchs will recruit many of these young people. By 2030 these enterprises will establish an international transshipment point in Lagos for illicit drugs, precious gems, endangered species, weapons, and human traffic. The client-patronage networks required to sustain these operations will further weaken the central government's hold on power and infect most local governments.

Infrastructure

In 2008 President Yar'Adua's seven-point plan (see appendix A) concentrated on resources to solve infrastructure problems that have limited Nigeria's development as a modern nation. Recognizing the need to provide basic human service infrastructure such as electricity, sewage and water treatment, and transportation for

farming and commerce, the Nigerian government will try to establish a stronger relationship with the World Bank and venture capitalists to secure funding for improving Nigerian human and industrial service sectors.

By 2030 most of the current infrastructure and the construction companies necessary to build new infrastructure will be controlled by criminal enterprises or various oligarchs. Through client patronage, they will rig bids for the contracts while siphoning off government investment. While family enterprises will build partnerships with the government to create jobs and some services, they will also fill their own coffers with oil profits. The result will be a slower infrastructure improvement process.

Power and Energy. Electrical power remains an essential element of any modern state. With electricity, a nation has the ability to operate oil refineries, provide clean water, treat sewage, build a modern service-based society, diversify the industrial base, make significant advancements in science and technology, and provide modern telecommunication services. As discovered during Phase IV operations in postwar Iraq in 2003, a nationwide failure of electrical power makes it extraordinarily difficult to provide basic human services.[48] Nigeria's reform movement could result in new national development funds for electricity, sewage, water, and other basic human services. However, endemic corruption will slow the development of a robust national power grid, while also allowing the oligarchs controlling the installation of the new infrastructure to gain greater influence with local and regional governmental leaders.[49]

By 2020 Nigeria will likely have some new power plants fueled by oil and natural gas and a power grid augmented by experimental solar and wind farms and tidal generators. However, it is also probable by 2030 that corrupt officials and enterprises will divert the funds needed to maintain a stable national electrical grid for their own purposes. Under these conditions, rolling brownouts will be the norm, especially in large urban areas, with occurrences peaking during the hot Nigerian summers. Without stable power, other essential human services will suffer, creating vectors for increased incidences of water-borne disease with all its attendant consequences. This, in turn, will spark social unrest and increase doubt about the government's ability to provide basic services.

Water and Other Basic Services. In the north, rainfall is seasonal and is becoming increasingly uncertain in areas bordering the expanding Sahara Desert. Lake Chad, a shallow lake that was once the source of much of the water for irrigated fields in the north, is all but dry because of overuse.[50] Continued draining of wells which tap the aquifers under much of sub-Saharan West Africa will likely increase the incidence of transnational migration of nomadic tribes in the Sahel. It could also lead to an increase in the number of inter-

nally displaced people in the north who may abandon villages as lack of water may eventually make farming impossible.

By 2030 internal displacement in the Niger Delta region and southeast Nigeria will rise because of MEND violence, the contamination of most surface water supplies with carcinogens and petrochemicals, and the lack of fresh-water wells. Without consistent funding and dedicated government action, remediation efforts in the Niger Delta region will fail. Saltwater and contaminates from the oil industry will likely intrude into coastal aquifers.

Without reliable clean water in 2030, waterborne disease morbidity will rise throughout the country with increased death among the very young and old alike. Popular discontent will rise as the lack of services and the perception of government favoritism of one ethnic group over another increase. Episodic violence and unremitting protests against local and national governments will likely follow, further eroding confidence in the Nigerian government.

Transportation. Nigeria's road networks are extensive but relatively poor—approximately 165,000 kilometers (km) of Nigeria's 194,000 km (85 percent) of roadways were either unpaved or were merely unimproved trails in 2009.[51] Without new investment, there will be little change in the ratio of unpaved to paved roads by 2030. Investments by the World Bank, China, and the United States have resulted in the roads in oil-producing areas receiving the most attention. This disparity has been noticed. If the government committed itself to provide either improved gravel or a paved road within a mile of every Nigerian farm, such an investment could enhance not only food security for the people but also the financial prospects of those living in the largely agrarian north and help diversify the economy. If, however, the road-paving industry becomes co-opted by the same graft and corruption as have other areas of government, then the north and the poor will remain mostly separated and isolated from more prosperous areas.

Other investments could improve the very small rail service (approximately 3,500 km) and air service (70 airfields) throughout the large country. Roads connecting major urban centers will likely be paved only with the assistance of international NGOs and oil and mining conglomerates. Investors in Nigeria's strategic mineral mines will likely pave and widen existing roads to facilitate the transport of goods and services for mining of raw materials and expanding Nigeria's oil infrastructure. Investment capital for improved transport may be generated by the sale of government bonds and with loans from the World Bank and the International Monetary Fund, if Nigeria's bond rating can remain investment grade.

Otherwise, government expansion of transport services in the Niger Delta will be limited to developing roads to facilitate transportation of oil-related materials and using the Nigerian army to help control this volatile region. The government will restrict development in areas of known or suspected MEND activity in order to

contain and limit the movement of insurgent forces. Paradoxically, this could reinforce perceptions that the government is unwilling or incapable of addressing local grievances.

As in the human service areas, corruption could disrupt or halt all investments in road, rail, and airport development, especially if it is bad enough to cause Nigeria to default on repayment of loans and bonds. Monsoons and other environmental factors unique to sub-Saharan Africa along with MEND attacks in the south could rapidly degrade any improvements made. The quality of the road network will affect agricultural production in the north as farmers may be unable to move their crops to market. Mining interests will also falter as they lose reliable transportation modes to key production and port facilities.

Declining food production combined with poor transportation infrastructure will take its toll on the poorest members of the population. Without food security, riots and thefts of food from storage facilities and granaries will become more commonplace and produce the same effect as bunkering oil. Without reliable transportation, industrial diversification efforts will cease.

Telecommunications. With a disproportionately large youth population accounting for more than 50 percent of the population, Nigeria will continue to buy into anything related to telecommunications. Ironically, telecommunications will prove a double-edged sword for the government, the oligarchs, and criminality in Nigeria.

By 2030 the oligarchs may form a strong telecommunications alliance or cartel that will likely lock out competition from non-African companies. Given Nigeria's proximity to the equator, it will continue to serve as a critical link for satellite communications. The oligarchs will control analog and digital radio stations; analog, high definition, and cable television; direct satellite broadcasts; broadband cellular; and NGI. Through broadband cellular, the family enterprises will circumvent government restrictions on public protests and can easily communicate with criminal elements throughout Africa and the world. They will also likely pioneer new security measures for industry that also serve to protect their interests, especially their criminal activities.

Through their dominance of the public airways, these family enterprises could control advertisement about goods and services, becoming the greatest beneficiaries of the public's insatiable appetite for new technology, goods, and services. The government will earn fees through auctions of the electromagnetic spectrum, telecommunication fees, and taxes. Through patronage, the oligarchs will likely win each auction and pay virtually no taxes. The oligarchs will then use their dominance of television and radio to help elect and reelect their candidates to public office.

MEND and the Sokoto caliphate will avail themselves of the same technology to recruit followers and spread their message throughout the world. Communication towers, normally tempting

targets for any insurgency, will remain relatively unaffected since both MEND and criminal enterprises will depend on them. While helping them exert influence and control among their own followers, they will, with the assistance of international civil society groups, undermine the government's legitimacy.

Food Security. Although a largely agrarian nation, Nigerian farming contributes little to the GDP. With appropriate government investments in water and road projects, agriculture may increase its contribution to the GDP by 2030. Distribution could be enhanced by new efficiencies in transportation using barges, rail, and trucking. With easy access to the modern Internet and the cloud, farmers will be able to create and use up-to-date weather, imagery, entomology, transportation, hydrology, and other farm-related data and information to improve crop yields and profits.

Any increased wealth in the north will provide the Sokoto caliphate additional funds that it would then likely use to meet the health care, education, political, and spiritual needs of its people. The caliphate will also invest in infrastructure projects, particularly wells and irrigation systems, to ensure its people have reliable access to water for crop irrigation even during periods of drought. It will also provide its people safe drinking water as surface contamination from fertilizers and industrial pollutants spills into rivers and lakes. Such assistance to the local populace will solidify political support for caliphate-selected leaders.

Although Lake Chad remains a relatively safe source of water for Nigeria, the encroaching Sahara Desert and overuse will further reduce its surface area by more than 50 percent and reduce available water supplies for Niger, Chad, Nigeria, and Cameroon.[52] This, in turn, will likely increase tension between the countries and could spark periodic clashes.

With poor quality surface water sources in the south for farming and drinking, the industrial south will depend more and more on the agrarian north for its food supply. Due to the corruption mentioned above, while the Sokoto caliphate may invest in agriculture, underinvestment in agricultural infrastructure by the central Nigerian government will decrease crop yields, thus increasing food prices throughout the country. This, in turn, will hurt the poorest people in the urban centers the most. Overpriced food and shortages of food staples will spark social unrest and further harm the relationship between the government and the people. It may also be used by a corrupt government to spark nationalism if it chooses to blame foreign governments, the World Bank, the International Monetary Fund, and other international organizations for its own planning and development failures.

Environment. The ecological devastation in the Niger Delta cannot be overstated. Millions of barrels of spilled oil, the clear-cutting of jungles, and the ravages of violent conflict will only compound the problem, destroying virtually all surface water supplies in the

Niger Delta. Saltwater inundation and the carcinogens from the oil industry will contaminate the vital southern aquifer and fishing areas. Fish stocks in rivers, lakes, and immediately offshore in the Gulf of Guinea will likely fall through 2030 unless immediate steps are taken to remediate the Niger Delta region and establish farming guidelines in the north.[53]

The lack of government action to remediate the Niger Delta will create conditions for active insurgencies. MEND and other groups will attract funds from groups like Earth Liberation Front and, with a large youth population, will find it relatively easy to recruit new members. Tribute payments to MEND and other similar groups will only encourage violence over the long term. By 2030 they will have more capabilities to attack the oil infrastructure and oligarch-controlled businesses in the south.

Economics

The Nigerian Economy

The Nigerian economy has long been considered one of the strongest in Africa, largely because of oil revenues and conservative budgeting by the central government. With virtually no debt in 2008 and with global demand for oil, its dominant commodity, increasing, Sachs projected growth from 2005 to 2030 (the 2008–2010 global recession notwithstanding) in five-year intervals to be 5.0, 5.5, 5.7, 6.1, and 6.6 percent. If realized, Nigeria's $94 billion (US dollars) economy in 2005 could grow to $556 billion by 2030.[54]

If sustained, government reforms through 2030 could help Nigeria develop what it arguably needs most—a large middle class—in order to sustain economic growth, improve per capita income, and preserve internal harmony. A healthy middle class would form an important tax base to help Nigeria diversify its economy, provide some stability to the budgeting process, and attract outside investment for new economic areas outside its oil industry.

Given volatility in the oil markets and Nigeria's current oil-based budgeting process, the Nigerian government may seek long-term, fix-priced oil contracts with the United States, China, and the European Union to bring predictability to their annual budget process. With declining institutional corruption, these long-term contracts could allow the Nigerian government to prioritize investments in infrastructure, especially power and oil production, enhanced recovery systems, and some other limited industrial diversification.

However, by 2030 a failure to address corruption will hinder investments to grow a middle class, harm Nigeria's credit rating, force early termination of oil contracts, and result in slower economic growth, thereby eliminating Nigeria as a top-20 world economy. Nigeria could also see peak oil production before 2030, as oil com-

panies cease exploration and oil drilling in Nigeria in favor of exploration and production in less volatile and potentially more lucrative regions of the world. In combination with each other, these factors would lead to an increased probability of instability and perhaps government failure.

The Single Commodity

Nigeria's current economy is largely built around a single commodity—light sweet crude oil.[55] Although currently demonized for pollution, climate change, and other environmental and health related problems, light sweet crude oil will remain in great demand beyond 2030 because it is relatively easy to distill and produces many useful types of petroleum products such as gasoline, plastics, and polymers. Declining oil production and violence in other petroleum-producing regions will help Nigeria improve its relative position as an oil producer. With proper investment in infrastructure and without production interruptions caused by violence, Nigeria's oil profits could rise to over 85 percent of federal government income, 91 percent of export earnings, and more than 60 percent of overall GDP by 2030.[56]

While high oil prices currently provide the potential for assured growth for Nigeria's economy, they could prove unsustainable over the long term as importing nations seek alternative and more reliable sources of energy. Energy and industrial diversification could raise agricultural and mining contributions to the overall GDP. However, as in other industries, institutional corruption could reverse these gains and spark greater levels of malfeasance in the form of taxes and fees as the government seeks to make up these losses.

The oligarchs will still hold a disproportionately large stake in the energy sector, but government reforms could initially reduce their share of oil profits from their current 80 percent level. However, the oligarchs will invest in new enterprises to assure their profits in many areas of the economy. The ICG's 2005 warnings about "a development trap" could prove prescient by 2030 should Nigeria fail to diversify its economy as wild fluctuations in oil prices and institutional corruption increase.[57]

Nigeria's complex national oil-revenue sharing plan will also be threatened.[58] Loss of these revenues will be felt most acutely in the north which, in turn, will harden the Sokoto caliphate's resolve to "depose through democracy" the corrupt government. Attempts to conduct a national census will continue to be opposed by the people of the Niger Delta region as a systematic attempt to steal oil wealth by the increasingly populous north.

As a result of these trends, the most likely outcome appears to be that the Niger Delta will continue as the heart of Nigeria's oil production, yet its share of global oil revenues will continue to de-

cline from its peak of 13 percent of the value it produces. This decline will continue as funds are siphoned off for MEND tribute payments and institutional corruption. These all result in disincentives for oil companies to invest further in the area. By 2030 oil production will fall below current rates as these dynamics take their toll.

Industrial Diversification

In order to create a more diversified economy, government reform efforts must be sustained for more than 10 years to create the needed confidence to attract investment by venture capital fund organizations. Such investment would have the effect of attracting multinational conglomerates like Bechtel Corporation to establish mining and production facilities in Nigeria. Nigeria has resources beyond oil, and with the proper investment, production of strategic materials required for aerospace and telecommunications, such as bauxite, aluminum, and gold, could see significant growth. Copper, tin, and other ores will likely not be as well developed but could help with economic diversification.

Early reform efforts to diversify the economy would include improvements to major port facilities like Lagos, which, in turn, will help the country develop new air, road, and rail services. Capital investments into the energy, services, and telecommunication sectors would also be key to sparking job growth in these new economic areas.

In addition, the emphasis on education reforms would also need to be continued. The efforts begun in 2007, if they take hold, could measurably increase literacy rates before 2020. This growing, educated workforce would attract new investment in Nigeria.

The challenge with this, however, is that the southern oligarchs will use their influence to attempt to control as much of this industry as possible. Further, the graft and corruption endemic to the central government mean that the needed reforms in the north will have to come from indigenous nonoil sources rather than revenue sharing. Lastly, the historic diversion of education funding for political purposes will continue, as it has in the past, to harm wealth creation by constraining growth of a middle class, increasing youth unemployment, ensconcing power in the hands of the oligarchs, and potentially threatening Nigeria's free enterprise system. In such an event, social disruptions and internal instability will increase.

The Government

Internal Security

Although religious and criminal violence is dropping throughout Nigeria, a further reduction depends on multiple factors: (1) the

success of reforms in government, education, and the economy; (2) strong leadership provided by the Sokoto caliphate in the north; (3) the success of the southern oligarchs in "professionalizing" criminal elements; (4) the failure of MEND to mount a sustained successful insurgency; and (5) successful revenue sharing and payoffs to extremist groups in the Niger Delta region. A failure in any of these areas could increase violence between religious and ethnic groups and further threaten the social contract between the government and the people.

The collapse of Nigeria's economy could create challenges in maintaining order throughout the country. In the south, the oligarchs will help maintain order by developing their own security forces, likely professionalized criminal groups, to help "supplement" Nigeria's already corrupt law enforcement. The protection of critical oil infrastructure and the need to hold MEND forces at bay will require a major Nigerian military presence. In the north, the Sokoto caliphate will grow its own militia and paid religious police. If the economy fails to grow, these three forces—military, southern security forces, and an Islamic militia—will likely work to maintain internal security in their respective areas of interest. However, the disparate philosophical views of these groups suggest that conflict between them is possible. Should the people lose confidence in the government, rumors of a *coup d'état* by the Nigerian military could spark increased internal conflict.

Governance and Legitimacy

Nigerian "power sharing" at the federal level is still not constitutionally mandated. While Christians will represent the majority of the electorate through the mid-2020s, the Islamic electorate, by sheer population growth, will likely compose the majority before 2030. Christian-led governments will continue to follow the Nigerian constitution and appoint people from each of Nigeria's 36 states to serve as ministers and to key positions in each ministry. However, client patronage and other forms of corruption will likely continue unabated throughout the federal, state, and local governmental systems.

The Sokoto caliphate will win a majority election late in this time frame. When its majority is sufficiently robust, it will seek to enshrine elements of the Islamic judicial code into law. As justification for its actions, it will point to a long and tarnished history of corrupt Christian-led rule.

There is no question that the caliphate will maintain a strong political base and hold on to the 12 northern Islamic-dominated states. To the extent it can under the existing system of graft and corruption, it will use limited monetary resources to expand its agricultural infrastructure and distribute revenues to provide for development, social welfare, education, and health-care needs.

In the south, the oligarchs and their enterprises become conduits for federal monies that they will use to attempt to "buy" loyalty. While this may work for a time, this corrupt practice to maintain power will eventually become clearly visible as communications expand. While government deals may go to the highest bidder for a time, eventually the corruption will spark a general disdain for the federal government. The corruption in the south will be a marked contrast from the governance in the north, which, regardless of religious overtones, will appear more responsive to the people than a national government beholden to client patronage.

The likely result is that the Islamic leaders will, in time, be confident of their numerical majority and moral superiority. When this occurs, an election result that ostensibly rejects the corruption of the past will bring into power a government supportive of Islamic reforms that will purify the corrupt state. This could lead to a nationwide establishment of Islamic schools and a gradual transformation of Nigeria and the Sokoto caliphate into the center of sub-Saharan Islam.

Such a government would likely attempt rapid reform by eradicating previous administrations' graft and corruption. Such actions could include seizing assets of those deemed most corrupt, particularly the southern oligarchs, and the government officials they supported.

The oligarchs professionalized security forces would react quickly to any threat to their livelihood, including striking hard against government forces and the Islamic militia. Similarly, MEND forces would likely view such actions unfavorably. As it has since 2005, MEND may strike hard at oil centers in the south and attempt attacks on oil platforms, transshipment loading terminals, and pipelines in the Gulf of Guinea. Its goal would likely be to force the new government to address its grievances before allowing the new government to consolidate its gains. As such, internal conflict throughout the southern part of Nigeria is likely, as the oligarchs, MEND, and the former leaders will all have strong financial incentives to retain their financial or government powers.

The resultant nationwide violence could very plausibly lead to the collapse of law and order in urban areas. The Nigerian armed forces, weakened by decades of graft and siphoning off of funds, even with the help of Islamic militias, would likely be unable to contain the violence. The government would be in grave danger of collapse.

If this violence continued even for a short time, oil production would rapidly drop, causing a significant loss of government revenue. This, in turn, could cause a collapse of the currency on international markets and a concomitant collapse of the government's ability to maintain economic order at home. The nation would be on the verge of shattering.

Military

The Nigerian military has been active in preserving Nigeria as an independent entity since 1960. It still functions to preserve Nigeria's territorial integrity, contribute to national emergencies and security, promote collective security in Africa while furthering Nigerian foreign policy, and contribute to global security.[59] It has ruled the state on five occasions, the last time being in 1993. Since then, presidents have worked to maintain it as a credible force but one too weak to seize power without assistance from nonmilitary elements. Unfortunately, this also has meant that it is too weak to fully stop the destruction of the oil infrastructure by MEND and other insurgents.

As an institution, the Nigerian military will likely remain a marginally capable force between 2009 and 2030. It should be able to continue supporting the Organization of African Unity and UN peacekeeping efforts throughout Africa. However, without adequate funding for training, professionalism will continue to be an issue whenever the force deploys as well as for domestic operations. Attempts by the government to reform the military and its leadership will remain sporadic and underfunded. Existing plans will downsize the armed forces by 40 percent and limit military spending to 3 percent of the GDP.[60]

Modernization efforts will also be limited. The Nigerian military will occasionally purchase new aircraft and army equipment. Training programs instituted through TSCTI will help professionalize the officer and noncommissioned officer (NCO) corps but will not eliminate institutional corruption. Indeed, a continuation of corrupt presidential administrations will both distrust the military and infect the institution with its own supporters. A continued diversion of funds from operations, maintenance, equipment, and, most importantly, training accounts will atrophy the military to a point that it is unable to threaten the central government. By 2030 the military will likely be unable to quell violence. In fact, the announced 2008 reorganization leaves the military with only three divisions. Further, as the Sokoto caliphate seeks to establish its own internal professional police force and militia, it is likely that many Islamic officers and NCOs will resign their commissions in Nigeria's armed forces and return north to serve in the Islamic militia.

In recent years, the United States has assisted the Nigerian military in maintaining its own sovereignty over its territory. Since 2005, the US Navy has increased its patrols in Nigerian waters. In 2008 the Gulf of Guinea Guard was formed with the help of the United States and Britain with assistance from Angola, Chad, Equatorial Guinea, Gabon, and São Tomé e Principe. Even then, MEND's counteroil operations have not been slowed.

When the electoral shift between Christian and Muslim leadership occurs, the Nigerian military will likely be unable to provide

internal security and ironically will still be viewed with suspicion. The army will lack the resources to secure the country, resulting in a demoralized force with large-scale desertions by soldiers who leave the service to protect their own families. Yet, in spite of this, the army's past history will almost certainly spark rumors of *coups d'état* as the central government faces a legitimacy crisis.

The hollow nature of the army will be known. Its inability to defend the oil-producing infrastructure from MEND, combined with desertions, will only empower and encourage other groups to attempt to seize some measure of control. Localized professional militias, Islamic militant forces, and MEND will have little reason to fear direct action from the Nigerian military, resulting in what may become a multipartite civil crisis. The state may, quite literally, be incapable of protecting itself, and the resultant breakup may be as violent as the shattering of a piece of plate glass when dropped upon a tile floor.

Outside Influences

The Players

In 2030 the United States probably will still be Nigeria's largest trading partner, with China holding the number two position. China's successful experiment with capitalism has opened many diplomatic doors across Africa, Nigeria included. As China seeks assured access to the resources it needs to sustain economic growth to maintain "internal harmony," it is likely to support stabilization efforts to protect critical resources and infrastructure.

Since 2008, China has invested heavily in Nigeria's oil sector to secure it as a reliable energy source for its rapidly growing economy. With the United States providing security in the Gulf of Guinea region, China will remain focused on infrastructure development rather than physical security through its paramilitary private military organizations. Both China and the United States will seek long-term energy contracts with Nigeria to help ensure predictable energy prices. These energy contracts could lock the United States into receiving up to 25 percent of its oil imports from Nigeria by 2025.

While the United States and China are generally viewed favorably within Nigeria, potential tensions may arise between the United States and the Sokoto caliphate over US military action in other Islamic countries. These tensions will be exacerbated by US demands for the accountability of money invested by the World Bank, the International Monetary Fund, and the MCC in developing nations.

If Nigeria's anticorruption measures fail, or elections are disputed, it is likely that the US Congress may sequester assistance funds and cancel loans to the Nigerian government. This could

briefly spark nationalistic fervor within Nigeria as the federal government attempts to enhance its legitimacy by blaming "outsiders" for Nigeria's failing economy and lack of basic human services.

This could create a conundrum for the international community as any attempt by outsiders to intervene to stabilize the country, no matter how benevolent their intent, could spark a backlash. This is a situation not unlike Iraq, where various ethnic groups initially viewed the intervention by the United States quite differently. Outside influence is unlikely to unite the Nigerian people into a single nation, and any show or even perception of favoritism towards any ethnicity or group will be poorly received.

Donor Fatigue

Donor nations joke about how their money is spent in Nigeria today. Despite the best efforts of donors to account for the money they spend, institutional corruption, in the form of NGO entrepreneurs, only serves to undermine government legitimacy. As a result, donor nations and even large international NGOs like the Red Cross will gradually demand greater transparency and accountability. Failing this, they will withdraw their support for large projects and focus on election monitoring and the most basic human needs such as disease mitigation and feeding hungry people.

The long decline of human services in Nigeria is generally viewed as one caused by the government and sustained by an unremitting culture of corruption. After 70 years of trying, donor fatigue has set in. If law and order break down in Nigeria, the donor fatigue already resident may cause many NGOs to withdraw.

The Failed State of Nigeria

In 2030, in the transition between the leadership of the extant corrupt regime and some form of Islamic replacement, the country will probably experience an episode of significant violence. Any attempt by an Islamic-led government to establish laws based on Islamic jurisprudence or to declare Nigeria as an Islamic republic will be rejected by the large Christian minority. Attempts to remove corrupt influences from governance will be fought by those who have historically benefited from these arrangements, namely the criminal family enterprises and the business oligarchs.

Business leaders, who have historically held great power, will not willingly allow their influence to be diluted. Conflict between security forces for criminal enterprises, various militias, insurgents, and the Nigerian military will erupt. Each of these entities will strive to protect their respective interests. The result will be a combination of religious and ethnic violence, which will almost certainly overstretch the mechanisms of the government to maintain control. When this occurs, it is likely the country will shatter along religious and ethnic lines, and civil war, probably multipartite, will ensue.[61]

The Nigeria of the distant future will likely succumb to a variety of ills—corruption, weak government institutions, failure to meet the social welfare needs of its people, unchecked criminality, crumbling infrastructure, growing insurgency in the Niger Delta region, and loss of confidence by international investors, among many others. In the early 2030 elections, the people of the Islamic-dominated north will successfully exercise their democratic vote and succeed in electorally deposing the previous government and, in the process, will likely trigger the collapse of their own country.

The aftermath of this election may cause vital interests of many of the world's powers to be threatened. A Nigeria in turmoil cannot produce oil, and up to 25 percent of US oil imports will be at risk. Global oil prices will skyrocket, threatening the world with serious economic turmoil. This will be a crisis few can ignore.

Yet it also promises to be a crisis few can fathom. With conflict nationwide, the flow of goods and services, including food, will be jeopardized. As galvanizing as the starvation in Darfur was in the late 2000s, a humanitarian crisis in a country with 225 million people threatens to be more than 100 times worse—both in terms of the number of mouths to be fed and the potential spread of death and disease. Further, Darfur was a conflict between two major factions; a fragmented Nigeria could break into as many as eight or more. Peacemaking is a must, as is restoring the oil flow; yet the problem at hand will be much more complex than the operations in Iraq or Afghanistan and will involve more than 10 times the number of people. It will demand a force structure more than an order of magnitude larger than any operation the United States has conducted in recent history, and it will likely come at a time when that force structure will not be resident among either the active duty or reserves. This will be a crisis that will take the concerted and integrated cooperation of much of the global community, or the global economy may fail.

Notes

1. Falola and Heaton, *A History of Nigeria*, 158.

2. The author developed this figure to provide the reader with a quick-look synopsis of the multiple factors at work within Nigeria from 2008 to 2030. While not all inclusive, it is a pictorial representation of all facets discussed in this chapter.

3. Library of Congress, *Country Profile: Nigeria*, 1.

4. However, many of these family enterprises will likely be formed along tribal/historically familial lines. As such, it may not appear that a formal shift in loyalty has taken place from the tribe to the corporation.

5. Goings, "Nigeria: Socio-Economic Factors 2007." According to the CIA, *World Factbook 2008*, the youth population (under age 16) accounts for 41.7 percent of the total population. Given the average fertility rate of 5.6 children and the relatively low life expectancy of Nigerian men and women (less than 54 years of age), the percentage of young people will likely continue to increase.

6. The CIA's *World Factbook 2008* shows Nigeria to have approximately 146,255,000 people, of which half, or 73 million, are Muslim. This places Nigeria

between fourth and sixth place in terms of states with a Muslim population—nearly tied with Egypt and Turkey.

7. Paden, "Nigeria."

8. This percentage is synthesized from research reports from the United Nations (UN) Development Program, the UN Population Program, and the World Bank; Goings, "Nigeria: Socio-Economic Factors 2007;" and statistical information found in *The World Fact Book 2008*. These sources generally agree that Nigeria's population is currently more than 50 percent Muslim, although some Islamic publications claim higher figures. The last official recorded census taken in Nigeria was in 1991. In 2006 Nigeria's National Population Commission attempted a new census, but the results of this effort are widely dismissed because of flawed collection and calculation methodologies and a failure to collect information about controversial demographics like religion. Charges of political corruption in the census process levied at President Obasanjo and his political party further tainted the results. As a result, the 2006 census was rejected by the 36 governors who are required to approve the results. Under Nigeria's constitution, state population statistics directly affect the proportional representation in the National Assembly and the federal allocation of funds to each state. Previous census attempts have led to conflict between the 12 Islamic states and the 24 non-Islamic states. The unofficial 2006 population statistics showed a 63 percent increase in the number of people over the 1991 census. The UN, World Bank, and the CIA population projections generally agree that the overall population growth rate is approximately 2.025 percent annually. *The World Fact Book 2008* states, as of 2008, the voting age population accounts for 55.3 percent of the Nigerian population. Population growth rates are higher in the 12 northern Muslim provinces, potentially because, under the Shar'ia law practiced there, men are allowed to marry up to four women, while the Christian provinces ban polygamy. Based on this data, it is expected that by 2030, the voting age population of the 12 northern states will make up the majority of voters within the country.

9. Population Division of the Department of Economic and Social Affairs, "World Population Prospects"; and UN, "World Urbanization Prospects." The UN Population Database projects Nigeria's population to reach 226,855,000 by 2030. The UN calculates Nigeria's population will double in 32 years based on the following formula: $\log(2) / \log(1 + r)$, where r = population growth rate.

10. Millennium Challenge Corporation, "Annual Scorecard of Policy Categories."

11. Smith, *Culture of Corruption*, 177.

12. "Failed States Index 2007," Fund for Peace and Foreign Policy.

13. Ploch, *Nigeria: Current Issues*, 12.

14. Smith, *Culture of Corruption*, 177.

15. The CIA's *World Factbook 2008* shows Nigeria to have approximately 146,255,000 people, of which half, or 73 million, are Muslim. This places Nigeria between fourth and sixth place in terms of states with a Muslim population—nearly tied with Egypt and Turkey.

16. Ploch, *Nigeria: Current Issues*, 6.

17. Schlisser, "Global War on Terrorism." Although likely written after 2003, the presentation is based on the analysis of captured al-Qaeda documents in 2005 showing a well constructed, seven-phase, 20-year strategy which began with the events of 9/11. The phases are The Awakening (2001); Eye-opening (United States invasion of Iraq in 2003); Arising and Standing Up (2007—formation of new groups throughout Arab countries); Demise of Arab Governments (2010); Islamic caliphate (2013); Total Confrontation (2016—attack against the West to drive all western nations from all Islamic states); and Definitive Victory (2020). The long-term goal is a world united under Islam by 2100.

18. Population Division of the Department of Economic and Social Affairs, "World Population Prospects." The UN Population Database projects Africa's population to reach 1.524 billion by 2030, an increase of 603 million since 2005 (middle case).

19. The term *virtuality* is a combination of the words *virtual reality*. This term is now used extensively by "gamers," scientists, and engineers who develop virtual reality technology.

20. Thompson, "Give Me Rice, but Give Me a Laptop Too."

21. This term for "warrior" is derived from the Yoruba language in southern Nigeria. English is the official language of Nigeria.

22. Crawley, "U.S. Navy Plans Six-Month West African Training Mission."

23. Department of Defense, *Seabasing Joint Integrating Concept 1.0.*

24. US Department of State, "Background Note: Nigeria," 6.

25. Jane's Information Group, "Procurement, Nigeria," 1.

26. Volman, *U.S. Military Programs in Sub-Saharan Africa*, 3.

27. Ibid., 14.

28. Ibid., 18.

29. BBC, "Nigerian Military Warns Oil Rebels."

30. Volman, *U.S. Military Programs in Sub-Saharan Africa*, 3.

31. Ibid., 1.

32. Smith, *A Culture of Corruption*, 56.

33. Ibid., 11–12.

34. Ploch, *Nigeria: Current Issues*, 9.

35. Smith, *A Culture of Corruption*, 229.

36. UN Development Programme, *Human Development Report 2007/2008*, 232.

37. US Department of State, "Background Note: Nigeria."

38. Goings, "Socio-Economic Factors 2007."

39. Smith, *A Culture of Corruption*, 88–89.

40. Goings, "Socio-Economic Factors 2007."

41. Population Division of the Department of Economic and Social Affairs, "World Population Prospects"; and UN, "World Urbanization Prospects." UN Population Database projects Nigeria's population to reach 226,855,000 by 2030. The UN calculates Nigeria's population will double in 32 years based on the following formula: $\log(2) / \log(1 + r)$, where r = population growth rate.

42. Population Division of the Department of Economic and Social Affairs, "World Population Prospects."

43. UN, "World Urbanization Prospects."

44. Pande et al., "Population Density in West Africa." The red areas indicate population densities of 75 people per square kilometer.

45. See note 8.

46. Globalis.gvu.unu.edu. *Globalis* is an interactive world atlas and Globalis.gvu.unu.edu is a collaboration between the Norwegian UN Association, UN Environment Programme/GRID-Arendal, UN University/Global Virtual University, the University College of Hedmark, and the INTIS schools. The project is supported by the Norwegian Ministry of Foreign Affairs and the Norwegian Agency for Development Cooperation.

47. Ibid.

48. Firsthand account of the author who served as the deputy chief of plans for Task Force IV, the Office of Reconstruction and Humanitarian Assistance, and the Coalition Provisional Authority during Operation Iraqi Freedom, January–June 2003.

49. This was practiced extensively in Iraq by Saddam Hussein and immediately after his overthrow in 2003 (author's firsthand account, January–June 2003) against the Shi'a. It is used in other nations where the central government and its coterie of supporters often threaten to cut off essential services to those communities who do or are perceived to oppose them.

50. Jacob Silberberg, "Lake Chad Waters Recede," *Wall Street Journal*, http://online.wsj.com/article/SB124033310033639597.html (accessed 22 April 2009). According to the slide show, Lake Chad's surface area is only 15 percent of what it was in the 1960s. Scientists blame the encroaching Sahara Desert as the principle cause, one exacerbated by irrigation programs in Nigeria, Niger, Chad, and Cameroon.

51. CIA, *World Factbook 2008.*

52. Gupta, "Climate Change and Diminishing Desert Resources," *CNN.*

53. Ploch, *Nigeria: Current Issues*, 17.

54. Ibid., 21. Nigeria's growth rate estimates for 2009 appear to range from a low of 2.7 percent to a high of 5.9 percent. While the latest estimates seem clustered just below 3 percent, Nigeria's economy continues to grow in spite of the ongoing recession. The worst estimate of Nigeria's current economic status is found in "Nigeria's Growth Slows to 2.7%," *Businessday.*

55. Until 2022, Iran's economy, like Nigeria, was also built around crude oil production. Throughout the twentieth and early twenty-first century, Iran was a net exporter of sweet crude oil and a net importer of refined oil products like gasoline. From 2007 to 2011, Iran's government was roundly criticized by the people in a series of protests for failing to provide enough gasoline and natural gas. The decline of Iran's oil stocks since 2014 has made it a net importer of oil for its growing population.

56. Ploch, *Nigeria: Current Issues*, 12.

57. *Nigeria: Want in the Midst*, ICG, 1.

58. Library of Congress, *Country Study: Nigeria.*

59. Peters, *Nigerian Military and the State*, 176.

60. Jane's Information Group, "Procurement, Nigeria," 3.

61. "Failed States Index 2009," Fund for Peace and Foreign Policy. As this monograph was being written, Nigeria continued its inexorable rise on the list of states most likely to fail. With the exception of refugee flows, the growth rate of the economy, and current intervention by outside powers, Nigeria scores abysmally in all categories rated. As of late June 2009, it is considered one of the 15 most likely states to fail.

Chapter 8

Technology and Failed State 2030—The United States Air Force Responds

Col Christopher J. Kinnan

With Nigeria on the brink of civil war, the global community, particularly the United States and the nations of West Africa, is faced with the difficult choices of *if*, *who*, *how*, and *when* to intervene. If the president chooses to intervene, then the United States will need to consider if the UN has sanctioned an action. If so, what limits have been imposed? What capabilities will allies or coalition partners bring to the fight and what do they need to be helpful partners? If the United States must stand alone, what technological capabilities will it require to be successful? Also, if the US Air Force is the force of choice to respond to a crisis caused by a failed state, what technological capabilities will it require to be successful?

For the purposes of this analysis, the researchers assumed the following: (1) Oil, particularly light sweet crude, remains a vital United States and global interest; (2) although declining, Nigerian oil imports may account for up to 25 percent of all US oil imports; and (3) Nigeria is fragmenting and sliding into a multipartite civil war. Civil war in Nigeria could destabilize all of West Africa, leading to instability across sub-Saharan Africa; create sanctuaries for violent extremist and terrorist groups; create a humanitarian crisis of unprecedented size; and create the conditions for global economic collapse.

The researchers also assumed that (1) the UN has sanctioned action to restore order and create conditions for a political solution to the crisis—one that will ultimately restore the Federal Republic of Nigeria; (2) African nations are not in a position to lead a response force; and (3) the United States will respond using the resources necessary to conduct a peace enforcement operation in order to secure critical oil infrastructure, separate belligerents, and create conditions for a political solution.

In addition to peace enforcement, the United States must prepare to provide humanitarian relief, restore basic human services as required to directly support the mission, assist NGOs as they conduct relief operations, separate the warring parties, and protect and secure the critical resource and supporting infrastructure.

A final assumption is that no other African nation will attack Nigeria since the nations in West Africa lack the forces necessary to take and hold territory. None of the forces within Nigeria—the Nigerian military, Islamic and tribal militias, the corporate security forces, and insurgent groups—are able to establish control over Nigeria.

Options to Restore the Peace

Peace enforcement falls under the larger construct of peace operations which is defined by the DOD as "multi-agency and multi-national crisis response and limited contingency operations involving all instruments of national power with military missions to *contain conflict*, *redress the peace*, and *shape the environment* to support reconciliation and rebuilding and *facilitate the transition to legitimate governance*. Peace operations include peacekeeping, peace enforcement, peacemaking, peace building, and conflict prevention efforts" (emphasis added).[1]

Peace enforcement allows for the application of military force or the threat of its use. According to the DOD, peace enforcement is "normally pursuant to international authorization, to compel compliance with resolutions or sanctions designed to maintain or restore peace and order."[2] In this case, the UN will only authorize the use of force to restore order, provide sufficient stability for humanitarian relief operations, and create conditions for a political solution.

To Engage or Not to Engage

So why engage at all? Responding to humanitarian disasters is a mission long undertaken by the United States regardless of a country's strategic position or interest to the United States. War, especially civil war, is arguably an unmitigated humanitarian disaster in the making, one that will require and consume tremendous resources. A humanitarian response operation is a powerful soft power option that can, over time, improve long-term relations between countries and their respective people while promoting internal security and stability.

In this case, the researchers assume engagement is required because Nigeria occupies a strategic position in sub-Saharan Africa and West Africa and provides a critical commodity the United States needs and the global economy requires in 2030. Nigeria is one of the world's largest producers of light sweet crude oil—highly prized because of ease of refinement and the proportionally high number of useful products (aviation fuel and gasoline among others) that can be distilled from it. Its loss is arguably disproportionately disruptive to the United States and the global economy and similarly destabilizing across much of sub-Saharan Africa.

In this case, failing to engage at all entails the risk of potential serious disruption of oil supplies, which would directly and seriously harm the United States and the global economy. Additionally, instability in Africa has traditionally sparked new wars, famines, and genocide across the continent—all of these are extraordinarily difficult challenges. As it is, this scenario will create many of these challenges. Allowing it to fester could create an intractable problem, expanding the need for humanitarian relief across a large swath of Africa.

There is also a significant moral element that should be considered based on recent failed-state experiences. Failed states of the past—for example, Lebanon and Somalia—disintegrated into destructive, even genocidal, civil wars. Lebanon's civil war lasted from 1975 through 1990; a political solution was finally agreed to but only after hundreds of thousands of people were killed or displaced.

In the case of Somalia, which completely failed in 1991, attempts at a political solution, humanitarian relief, and peacekeeping operations have all largely failed. Hundreds of thousands have died in genocidal fighting; human trafficking, piracy, transnational terrorism, religious hatred, and famine have increased suffering and promoted instability in other areas of Africa and the Middle East. There is still no central government—political violence, clan warfare, and religious hatred will likely keep Somalia a failed state for at least two generations. Instability in Somalia has threatened to ignite wars in Kenya, Ethiopia, and Eritrea.

The world is also bearing witness to the slow failure of Yemen, which suffers from weak governance and an internal Shi'a insurgency and hosts numerous terror training camps. Somalia, Eritrea, and Yemen sit astride the Gulf of Aden, a critical waterway and strategic choke point for maritime commerce leading to the Suez Canal. It is only a matter of time before intervention of some kind, likely military, will be required to keep this critical waterway open.

In the near term, a decision to not intervene may save lives and money for the nations normally expected to respond. The long-term costs of waiting until a failing nation erupts in civil war—with its evil sisters, genocide, hunger, privation, and disease—are incalculable. Delay brings the great risk of explosive costs to the international community as it potentially spends generations, irreplaceable lives, and national treasure to rehabilitate and recover from the consequences of a failed state.

US Response to Nigeria's 2030 Failure

For purposes of this analysis, the researchers assume the UN has sanctioned a peace enforcement operation in Nigeria led by the United States. The United States will, in this case, as it has in other US-led interventions, pursue a course of action designed to create conditions for a political solution.

Under these circumstances, United States priorities are to prevent full-scale civil war in Nigeria, limit the spread of conflict beyond Nigeria's borders, secure critical oil resource areas in order to limit damage to United States and global economy, relieve human suffering in all parts of the country, identify and separate belligerents, create conditions for a political solution between warring parties and foster national reconciliation, and transition from a US-led peace enforcement operation to a UN-led national recovery and peace building operation.

Normally in any peace enforcement operation, the United States relies, at least in part, on airpower to address its priorities. In this case, researchers assume the US Air Force will serve as the lead agent of a joint and international peace enforcement operation. In light of the current situation, the Air Force must be prepared to

- **Detect**—achieve full spectrum dominance (land, sea, air, space, and cyberspace) that allows US forces to rapidly identify belligerents, survey operating areas, quickly respond to threats, identify environmental and disease vectors that could threaten the mission, and synthesize all forms of intelligence to form an accurate composite picture of the battlespace. All-source intelligence, surveillance, and reconnaissance (ISR) will help build this picture.

- **Understand**—use a combination of technology and human sources to characterize the nature of threats posed by the belligerents, discriminate between friend and foe, find critical players and their supporters, discern potential vulnerabilities and opportunities, map human and communication networks, and identify opportunities to exploit the rapidly evolving situation to defuse tensions while creating conditions for a peaceful political settlement.

- **Deploy**—rapidly move forces, materiel, and supporting infrastructure into the region.

- **Survive**—integrate the use of technology and human networking to secure US operating areas in the failed state and enhance force protection efforts.

- **Engage**—target and attack belligerents through multiple means.

- **Sustain**—rapidly replenish forces and quickly restore operations in the wake of losses by attack or system failure.

Technologies Required to Address a Failed-State Scenario in 2030

Technologies in 2030 available to support a military response in a failed state, especially in the most stressing case where civil war is imminent or ongoing, will likely be highly accurate, precise, direct, and discrete capabilities that allow the application of minimum force to compel warring factions to cease their hostile actions and quickly seek a political solution. The researchers expect by 2030 that weapons and supporting systems (those designed to detect, understand, deploy, survive, engage, sustain, and assess) will be tied through the ubiquitous Global Information Grid (GIG) into an adaptable, flexible, and highly responsive "system of systems."

The GIG in 2030 will possibly be integrated within its own network cloud composed of sensors, databases, analysts, analyzing technologies, automatic recognition and characterization, decision support, decision-making models, and users. In the researchers' opinion, today's kill chain—find, fix, track, target, analyze, engage, and assess—remains a valid operative model for this peace enforcement operation.

Every land, sea, air, space, and cyberspace weapon platform and system during this time will function as a sensor by collecting and feeding data to and through the GIG and, in many cases, conducting rudimentary analysis. Platforms and systems will probably have routine seamless access to the GIG throughout their mission but will also have stand-alone features allowing mission completion should access to the GIG be severed or compromised.

The technology available in 2030 will provide accurate automatic target recognition (ATR) at much greater distances through the use of onboard and off-board detection and assessment systems. Weapon platforms and systems in 2030 will likely be programmed with the most current up-to-the-minute information prior to each mission; this data will be updated continuously during the entire mission with additional information provided via the GIG.

Some basic assumptions about technology in this timeframe include: (1) many advanced technologies will be accessible and used by nonstate actors (e.g., groups and individuals); (2) all sensors (electro-optical, infrared, radar [C-band, X-band, etc.], multispectral, hyperspectral, ultraspectral, electronic detection, acoustic, listening, olfactory, cyber, etc.) will be much smaller, allowing platforms to carry multiple sensors in an integrated, multisensor suite on almost any platform; (3) advanced sensing and detection technologies (air, land, sea, space, and cyberspace) will provide better discrimination of targets (e.g., location of an industrial plant, identification of effluents, resolution of specific chemical trace, etc.), which will allow discrete targeting of a particular section of a target; (4) advanced sensing technology will allow increased probability of detecting moving targets and "targets of opportunity," as well as an increased probability of detecting previously unknown targets; (5) systems will likely carry the maximum number of sensors they can based on mission design, platform capabilities, system power, and computational capabilities; and (6) weapons and platforms (land, sea, air, space, and cyberspace) will have the capability and capacity to be loaded with information required to support their basic mission profile prior to mission start, receive "low probability of intercept" communications from other platforms on the same mission or operating in the same area, acquire mission information from databases and sensors outside the operating area, and assess new data and synthesize it with onboard resident information to refine mission parameters.

It is assumed that, when programmed or allowed, systems will self-select targets, make engagement decisions, provide assessments to other platforms or systems, and conduct operations as determined by the designated controlling commander. The system memory storage capacity within the network cloud will be virtually unlimited; bandwidth capacity in this timeframe will range from hundreds of megabits per second to hundreds of petabits per second—higher capacity to send and receive information, while desirable, should not be a disqualifier (e.g., microsystems, which are limited by the physical size of the communications apertures/pipes). Weapons and platforms will be capable of autonomous operations to a level determined by the designated controlling commander (or in the case of nuclear weapons and other weapons of mass destruction, the president). Weapons and platforms will, in some cases, have the ability to complete their mission if they are disconnected from the GIG and their command and control elements, and they will be subject to physical attack from all domains—land, sea, air, space, and cyber—using systems that can disrupt, degrade, deny, delay, and destroy.

Thus, technology in this timeframe will potentially provide many useful platforms and systems that will enable the Air Force in 2030 to act as the lead force in responding to and resolving failed-state situations. For purposes of this examination and the failed-state scenario, emphasis is given to the following areas.

Detect

Prior to engagement in any scenario, the response team requires access to air, space, cyberspace, human intelligence, and other resources to build a comprehensive picture of the battle space or operating environment. Response elements will likely require ISR capabilities that they can immediately task and, in many cases, control.

The response team will require a system of systems that integrates the tasking, controlling, and manipulation of intelligence products from electro-optical, electronic, radar (various wavelengths designed to image the surface and penetrate camouflage, buildings, soil, and water), communications, auditory, acoustical, spectral (multi, hyper, and ultra), biological, chemical, nuclear, network mapping (human, cyber, communications, etc.), and other varieties of active and passive sensing and taggant systems. These can operate in the air, space, near space, cyber, surface, and subsurface environments and provide planners and operators with vital information of a dynamic environment.

Nanoscale sensors employed as smart dust or a cloud of micro electromechanical systems (MEMS), also known as motes, are deployed by blast, spraying, or other similar dispersion methods. When dispersed in target areas, these sensors, when clustered together, can create a sensing network that is virtually undetectable

by an adversary but can provide valuable information about an adversary's movement and activities. These sensors and taggants can track individual movements, identify disease vectors, and detect dangerous gases or effluents. Fused with other sensor information, these sensors detect and build a comprehensive picture of the battlespace.

Control systems should be easily portable by individuals and easily networked with and through the GIG. The software systems should automatically control all operations once the operator provides basic mission profile information. The control system's logic matrix should prioritize all mission taskings in the region, assign and adjust priorities, control the handoff from one mission system to another as required, and recommend alternative courses of action to optimize persistence and ensure mission completion.

Passive systems are designed to provide early warning of possible threats. Advanced warning should allow for a greater variety of active defense and attack operations options. Advanced detection capabilities and systems, combined with robust signature databases, will help the response force identify biological, chemical, and nuclear hazards.

Understand

Context is "job all." In peace enforcement, a failure to understand the strategic, operational, and tactical situation in a fluid operating environment can lead to rapid escalation with its attendant tragic consequences, including collateral damage and mission failure. The ability to understand an evolving conflict situation is useful so that appropriate courses of action can be developed and contingencies anticipated. The better the information, the more refined the solution set will be and, potentially, the better the decision.

Using integrated, persistent ISR, advanced detection systems, indigenous human intelligence capabilities (recruited and friendly), and decision support systems, the response team can begin to bound the problem. Among the more vexing challenges for the team is understanding who the belligerents are and how they are linked to other factions in the conflict (shifting alliances that can either be exploited or that may threaten the response force); how these disparate factions operate and the depth of their passion for this or any conflict; what underlying problems are sparking the conflict; what the aggravating factors are—cultural, ethnic, religious, language, historic animosities, special grievances, economic, social, tribal, and so forth; and what capabilities the various factions have to continue the conflict and what they can provide their own people.

The team must also look at what various belligerents value (axiological targeting); what the current status of critical infrastructure is—economic, basic services, government, military, and so

forth; what the people need to sustain them until the conflict is resolved; what gaps exist in its understanding so that detection capabilities can be tasked or its capabilities refined to compensate; and what infrastructure is available to receive, host, and sustain the forces flowing into the country.

With this basic understanding, the team can refine its response and make it more targeted and efficient. While there are many unknowns in a failed-state civil war, a well-informed response force that understands the situation on the ground can spend more of its energy and resources addressing real problems in discrete areas rather than husbanding resources to respond to all unknowns.

In the face of belligerents taking advantage of the collapse of a central government and a nation's disintegration, understanding who they are and, more importantly, what they value becomes critical in this fluid environment. Systems that map human and communication networks and identify key players among various factions make axiological or value targeting possible. Once the players are identified, it is then possible to identify what they value. With this information, the response force can take action compelling belligerents to cease or curtail their hostile or divisive activities and, perhaps, encourage them into a process that ends violence and creates conditions for a political solution and the possible restoration of the state.

Thus, persistent ISR, decision support systems, human and communications network mapping systems, reliable communications (radio, telecom, and computer), language and cultural competency, and knowledge of the conditions precipitating and aggravating the crisis are essential to understanding the situation in a failed state. It is especially important to be forearmed prior to deploying forces or taking actions to resolve seemingly intractable civil wars and even lower-level conflict. Current, actionable information presented in its proper context is a very powerful weapon.

Deploy

Once a decision is made to conduct a peace enforcement operation in 2030, the ability to rapidly deploy forces, support, and humanitarian relief materiel will be critical. In a situation where a civil war is threatening, the shock effect generated by the quick deployment of a large number of forces arriving simultaneously and ready to engage can potentially slow down belligerent actions and give hope to innocent victims, while reassuring regional nations and global markets. The deployed force must arrive quickly, be large enough to be immediately visible to the populace, and robust enough to have an immediate impact on events. In a nation with 10 times the people and more than twice the land area of Iraq, the number of forces and resources necessary will be quite large.

Airborne delivery of personnel and equipment in such a situation must be rapid and highly efficient. Within hours of a direction to deploy to the affected area, air forces must load and deliver hundreds of thousands of pounds of personnel and materiel for an Air Force wing to conduct and sustain operations. The scope of the humanitarian crisis may be hundreds of times larger than the Berlin Airlift. The absence of surface infrastructure means much of this materiel will be delivered by air, as the road network will not be adequate to move goods from seaports to inland areas. The Air Force's current lift capabilities are grossly inadequate for this scenario.

For this task, Air Force lift capabilities must have unrefueled global range and be able to use unimproved, even open, farm fields to deploy and receive military forces and equipment. Given the shifting alliances and the multipartite aspect of Nigeria's civil conflict, any local contracting will be seen as taking sides—all operations will be done "in-house" or in conjunction with allies. In order to carry the quantity of materials to stem a humanitarian crisis involving a quarter of a billion people, size will be important. Some airlift aircraft will need the cargo capacity of modern sealift vessels and will need to be self supporting. They must carry any required air and space ground and material handling equipment for loading, unloading, and relaunching the aircraft.

Once unloaded, these enormous airlifters should be rapidly configurable to move refugees or internally displaced persons, carry the wounded, move indigenous cargo for the local population or NGOs, conduct airdrops of food and critical equipment, and even act as an airborne command center as the situation warrants. Some large airlifters may need to be configured as "hospital ships" like the US Navy ships *Mercy* and *Comfort.*

Medium airlifters—C-5, C-17, and C-130 aircraft and contracted cargo airlift—will be used in the failed-state scenario in 2030; however, their utility may be somewhat limited by access to airfields. As proven assets, they are useful for moving cargo from logistics hubs to forward operating locations and for conducting airdrop operations. Short haul airlift can be provided by CV-22 and the Joint Cargo Aircraft. The inability of helicopters to self-deploy across the Atlantic means that vast quantities of lift, which may be needed for immediate humanitarian relief and stabilization, will be required to move these assets to theater.

Survive to Operate

Threats to deploying aircraft will normally be considered low for the 2030 timeframe. However, in 2030 this means that, in addition to automatic weapons, handheld surface-to-air missiles such as the SA-7, SA-9, SA-16, SA-18, and SA-24 will likely be available on world arms markets and may be in the inventory of the oligarchs' security forces and individuals.[3] As a result, aircraft operating in

theater must be able to detect these threats at tactically significant ranges and successfully defend themselves, as even relief operations for opposing segments of the population may be seen as provocative, especially in the early phases.

Securing operating areas in a failed state with little more than what is deployed with the response force requires technologies that are simple to set up, integrate, operate, and employ in various scenarios. Generating power, treating water and sewage, controlling disease vectors, and securing installations and facilities will be essential to mission success since these help promote a general sense of security among threatened populations.

Electrical power is essential to all modern military and civilian operations. Portable power stations, not the current diesel or gas generators, will be required in a failed-state scenario. These power stations should make use of locally procured sources of fuel; waste materials (e.g., garbage, sewage, etc.) will likely be the easiest to obtain. Easily deployable and assembled alternative energy stations (e.g., solar, wind, etc.) can help augment power generation and mitigate shortages.

With assured power generation, the response force can make clean water, treat its sewage, provide lifesaving medical care, operate advanced communications, sustain command and control and military operations, power solid-state directed energy weapons and detection sensors for installation defense, and conduct other mission sustainment operations.

An uninterruptable power source is also necessary to pump and distill oil, operate tank farms and hydrant fuel systems, fuel aircraft and vehicles, and operate other types of fuel and power systems. Because of the logistical difficulties in providing sufficient aviation and motor vehicle gasoline in Iraq, Afghanistan, the Horn of Africa, and other locations to sustain operations, Air Force systems should be configured as flex-fuel systems (microbial, synthetic gasoline, bio, etc.) or use alternative sources of energy that can be accessed and developed cheaply and easily on site.

Monitoring the spread of disease in the tropical developing world is also crucial. Here, swarms of unmanned systems, enabled by micro and nanotechnology, could be used to identify disease vectors throughout Nigeria, allowing the response force to bring appropriate medicines and material to treat disease and eradicate its source. Additionally, small MEMS vehicles could be used to inoculate populations in remote areas against endemic or epidemic disease. This would not only improve the health of the indigenous population but also protect the response force by slowing the spread of illnesses against which the response force may have limited immunity.

Force protection and installation security in a failed-state environment should be easily deployable, non–labor intensive, and effective (force protection "in a box"). Such protection systems could include defense systems that can sense incoming threats and use

small nonlethal weapons such as a miniaturized active denial system against humans or a directed-energy-based defense system against incoming mortars or missiles. They should also include active detection and sensing systems designed to detect and defeat improvised explosive devices, both static and those rigged to people and animals.

As this mission in Nigeria involves securing and repairing critical oil and gas production facilities and associated infrastructure, the ability to defend the restoration operations is essential. A combination of persistent ISR, advanced ATR, and passive and active defense measures on the various facilities are needed.

Keeping the pipelines and pumping stations in operation, despite attacks, is also a required capability. As such, material advancements such as "spray on" ballistic jackets for pipelines, pumping stations, and transloading facilities could mitigate attacks and assure global markets that the flow of oil and gas would continue. Once those facilities were protected, skilled oil technicians would be recruited and contracted to operate and maintain the existing infrastructure. They must be safely housed, fed, inoculated, and cared for.

Engage

The US Air Force has proven it is well versed in active engagement of targets. The recent wars in Iraq and Afghanistan have demonstrated a need for identifying human networks, air vehicles capable of long loiter and persistence, developing weapons that are able to deliver greater precision in their destructive power (i.e., weapons that kill the target but leave the surrounding area unharmed), positive target identification, and better means for assessing the implications and the level of destruction. Collateral damage has inadvertently increased hostility against the United States and will continue to do so. If our ability to mitigate this damage remains unchanged, collateral damage has the potential to exacerbate insurgencies and push a future Nigeria over the brink into open civil war.

Feeding the GIG with advanced detection capabilities, the Air Force should be able to identify and track viable targets. Modern remotely piloted aircraft can track and target hostile elements, and nano air vehicle swarms and taggants can mark belligerents, thus making it easy to distinguish them from the nonviolent population.

Directed energy weapons carried on aircraft and on ground vehicles can be utilized to effectively target and eliminate belligerents with precision. Such weapons virtually eliminate the potential for collateral damage. Nonlethal weapons, including microwave, foam, and other effective crowd control weapons, can be employed with impunity from aircraft. Again, they minimize the possibility of collateral damage, which, in turn, discourages an active insurgency.

By 2030 many nations in the world will have the most modern advanced communications and will have citizens who actively use the NGI, cloud computing, and broadband communications. Computer savvy people operating alone or within a criminal enterprise may use cyberattacks to disrupt the actions and systems of a technologically advanced response force. Thus, the response force must be able to monitor its networks and aggressively seek out and neutralize any potential threats. In the event of a successful cyberattack, the response force must be able to instantly identify the attacker, take actions to neutralize the attack system, assess damage, and reconstitute its networks. Rapid reconstitution makes a powerful impression on belligerents and civil society alike.

While helping provide security and promoting stability, advanced technology weapons (lethal and nonlethal) may also attract support from various indigenous groups who might be impressed by the response force's capabilities. This, in turn, helps separate belligerents from their base of support; response forces may then find it easier to create conditions for a political solution. However, such technologies must provide a visible "massing" of force and must be sustained.

Sustain

In a failed-state scenario, the risk of loss of air and space assets is likely relatively low compared to a near-peer scenario. Most nations that are likely to fail do not normally possess robust integrated air defense or antisatellite capabilities (the former Soviet Union being a notable exception). This in no way precludes them from acquiring such capabilities or engaging in various forms of hybrid warfare to strike critical terrestrial nodes.

Attacks through cyberspace and direct attacks against land-based support infrastructure pose the greatest danger, especially for Air Force information and space systems. Airlift must be robust enough to provide an unbreakable supply chain to bring critical mission components and materiel into the country when and where it is needed.

Without forward basing or "lily pads" in the affected area, airlift capabilities must be able to reach any point on the earth quickly and effectively from continental US locations. Aircraft in flight and logistics nodes must be able to receive information from the frontline forces, even down to the individual, so that appropriate supplies can be quickly brought in to the country and forwarded to the location needed. Requests for supplies and assistance through the GIG are as important as the in-transit visibility it affords. Further, in a scenario as demanding as a failed Nigeria, forces will not have the luxury of delivering too many supplies to one location, as it will mean too few in another; this will permit lives to hang in the balance everywhere. Information assurance in a failed-state scenario such as this is essential, requiring the GIG and the network cloud

to be adaptable and self-healing in the event of a cyberattack or the loss of a physical node.

Technology Summary

Failed states on the verge of civil war present innumerable and extraordinarily difficult challenges. In the case of Nigeria, a country with a vital resource for the United States and the rest of the modern world, its failure must be immediately addressed. While the US military likely possesses the means to get its forces to the region, how it will deal with various individuals ("Bubba Einstein"), groups, and factions possessing some of the technological capabilities of modern states requires investments now in critical enabling technologies. Early investment in technologies that should be available for use in 2030 will ensure they are ready and relatively easy to adapt into systems necessary to detect, understand, deploy, survive, engage, and sustain forces that can counter and respond to the surprises a future failed state will pose.

Notes

1. Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms.*
2. Ibid.
3. "U.S. Concerned with Venezuela's SA-24 Purchase," Thoughts of a Technocrat (blog), 10 June 2009, http://djtechnocrat.blogspot.com/.../us-concerned-with-venezuelas-sa-24. As of this writing, the SA-24 Grinch missile system had already been sold to Venezuela by Russia. With a superior seeker head and high maneuverability, it has an estimated maximum effective altitude above 19,000 feet. As with previous Russian missiles, proliferation onto the international arms markets is highly probable.

Chapter 9

Summary

This body of work, while focused on Nigeria, explores dynamics that exist in many other failed and failing states. This scenario could have just as easily been about a nuclear-armed Pakistan, which presents vexing and extraordinarily dangerous challenges.[1] Whether these dynamics lead to the failure of any particular state has much to do with the quality of governance, the wisdom of national leaders, the assistance and support of other nations and international institutions, and a commitment by the people to secure for themselves and their posterity a life and nation they can be proud to call their own.

The history of any nation provides a context for examining the current state of affairs and then projecting possible and even probable outcomes or alternate futures. With history as a starting point, analysts can anticipate the possible choices that must be made in response to a failed state as it slips into civil war. More importantly, these analysts should identify the kinds of investments in technology that must be made now to help ensure success. In the case of Nigeria in 2030, its history of tribal and religious conflict, endemic corruption at all levels of government, poor national planning, uneven development, social disorder, rampant criminality, violent insurgency, and terminal weak governance provides an environment that could portend imminent collapse and failure.

In the absence of a pandemic, oil spill, or earthquake, national collapse and state failure are often the result of a culmination or a cascade of failures in critical areas required to build and maintain a healthy nation. These paths are often intertwined; the loss of one or many can rob a nation of its identity and speed the process of failure. Through the lens of history, this study's authors envisioned the conditions that might cause Nigeria to fail in 2030. These same conditions could and do exist, to varying degrees, in other nation-states.

In this 2030 case study, fragmentation of the Nigerian body politic could create conditions for a multipartite civil war, mirroring in some ways the events in Lebanon in 1975 and Somalia in 1991. However, Nigeria's 250 million people, 350 different ethnicities, and religious differences can, under the right circumstances, cause the nation to shatter in an instant.

While Nigeria has experienced civil war in the past, the ramifications of one in the 2030 timeframe, given the importance of Nigerian oil to the world economy and easy access to advanced technology, would be much greater. One can only imagine the impact on the world economy of the sixth most populated country on Earth—the most populous nation in Africa and a top 20 economy—suddenly collapsing and erupting into nationwide violence.

In a highly globalized world, the failure of one nation can send out a potentially destructive shockwave rapidly destabilizing other nations, some in close proximity and others around the world. There is a saying today that "as Nigeria goes, so goes the rest of Africa," which illustrates the strategic influence Nigeria has on the African continent. By 2030 this influence will probably be much greater. This fact alone creates an imperative for deliberate and immediate action to halt conflict, relieve suffering, restore conditions for a political solution, reverse failure, and ultimately restore Nigeria as a functioning state.

With its growing population and the importance of petroleum and natural gas to the world economy, Nigeria's influence will only increase over the next few decades. Thus, a civil war, whether it occurs or not, could be devastating for Nigeria, West Africa in which Nigeria is the leading power, and Africa as a whole.

The ECOWAS has conducted a number of peacekeeping operations in Liberia, Cote d'Ivoire, Guinea-Bissau, and Sierra Leone. However, it is dominated by Nigeria and would likely be incapable of dealing with Nigeria's failure and a subsequent civil war. With war, millions of refugees would flee across Nigeria's borders into Cameroon, Niger, and Benin, putting tremendous strain on their human services, local infrastructure, and national economies. The more destructive the civil war, the greater the chance of genocide and other horrors that leave an indelible stain on human history.

On a larger scale, a failure of the Federal Republic of Nigeria or a state of similar influence would wreak havoc on the global economy. With continued globalization and Nigeria's position as a major player in global economics now and in 2030, its collapse will have enormous wide-ranging impact. Even though demand for oil and gas may be declining in 2030, they will still be vital for most economies to function.

When presented with any failed-state scenario, the United States and other world nations must decide whether intervention is required, and if so, when, where, why, and how to intervene. Intervention in any failed state in 2030 will potentially bring great economic and political costs. Thus, it is likely the United States will initially strive to build coalitions and assist NGOs operating in the region, rather than take on the challenge alone in the absence of assistance from other nations.

If the United States chooses to intervene, it must act quickly to address a myriad of practical infrastructure, governmental, and humanitarian problems. In most cases when employing military or "hard power," the United States seeks to minimize its presence while using technology to maximize effect. By 2030 the US military's ability to move resources and create instant effects will probably still be unrivaled. The US Air Force in 2030 will still master and require systems and technologies to immediately detect and

understand, rapidly deploy and engage, and sustain and quickly resupply itself for almost any military or peace operation.

Detection technologies which provide high-fidelity information that enable both skilled analysts and front-line troops to accurately assess, properly characterize, and understand the nature of the operating environment and the capabilities and threats posed by adversaries will be prized. These technologies must provide users with the forensic tools required to properly attribute attacks, discriminate between belligerents and noncombatants, and empower leaders to anticipate enemy actions while formulating appropriate responses to real threats and conditions, sometimes at machine speed. Systems allowing a force to survive in place by providing robust force protection and engaging adversaries before they pose a direct threat will reduce the "tail" while adding more warfighting "tooth."

Advanced airlift systems, both manned and unmanned, in 2030 must be larger than today's airlifters, have an unrefueled global reach, be fast, be able to self-defend, and be more than capable of operating in austere environments with little support. The team able to arrive first and meet the needs of the people in a highly charged and confused civil war environment will likely stand the best chance of winning hearts and minds. This will help create conditions for disparate factions to work together to rebuild.

Under conditions of failure and multipartite civil war, sorting through the ethnic and cultural stew will be virtually impossible since most people will identify more with their tribe, religion, or culture than with their country. In the case of Nigeria or any nation, shifting allegiances will make the task of restoring a failed state extraordinarily difficult.

In a globalized world with advanced communications technology available even to the most destitute, governance vacuums become more obvious to disenfranchised people. No doubt the same will be true of the Nigerian people in 2030. Today's ubiquitous availability and popularity of technology such as cell phones, computers, television, personal data assistants, social networking, and the Internet create greater awareness and increase socialization. The African people are openly embracing these technologies. Without a basic understanding of the context of national history or a nation's present circumstances, this new awareness and virtual socialization afforded by these technologies proliferate group grievances, which lead to greater mistrust of all institutions related to governance.

In a world of virtual social networks, facts can give way to rumor and innuendo, especially in a failing state; these rumors then begin to fill the leadership and information vacuum, as do "outsiders" with agendas of their own. In the absence of good governance, the people supplant the existing social contract with one of their own making. The weight of this mass of disparate agendas and emerging social orders can fill the vacuum until it reaches a critical mass

and then, in an instant explosion, rapidly collapses the existing order. What remains is anything but orderly.

Whether the US Air Force will be prepared with the right technologies and capabilities to respond to a failed state depends, in large measure, on prioritized technology investments today. A single gold-plated system likely has limited utility in a future failed-state scenario since surprises and unanticipated challenges will abound. Thus, a variety of capabilities enhancing the US Air Force's ability to detect, understand, deploy, survive, engage, and sustain forces while protecting those who can restore or rehabilitate a failed state and its critical industries are essential. The wisdom applied to these critical technology investment decisions, especially the game changing cyber, nano, and biotechnologies, will likely carry the US Air Force through many fights, including the all-important and arguably most stressing 2030 scenario—a failed state sliding into a protracted and bloody civil war.

Notes

1. In fact, a lengthy debate occurred at the beginning of this study as to whether the failed-state scenario should be written about Pakistan. The challenges would be similar. The population is roughly the same, seaport to road infrastructure is poor, and the number of ethnic groups is roughly equivalent. The principal differences are that Pakistan would have added about 4,000 miles to the airlift problem and the securing of around 100 nuclear weapons to the military challenges. In the end, it was thought such a scenario might be viewed as "too extreme." It is not. Based on the "Failed State Index," Pakistan is the 10th most likely nation to fail; it ranks as a more probable failure than Nigeria.

Appendix A

Yar'Adua's Seven-Point Agenda*

Power and Energy—The development of sufficient and adequate power supply in this critical sector will ensure Nigeria's ability to develop as a modern economy and an industrial nation by the year 2015.

Food Security—This reform is primarily agrarian based. The emphasis on the development of modern technology, research, financial injection into research, and production and development of agricultural inputs will revolutionalize [*sic*] the agricultural sector, leading to a five to 10-fold increase in yield and production. This will result in massive domestic and commercial outputs and technological knowledge transfer to farmers.

Wealth Creation—By virtue of its reliance on revenue from non-renewal oil, Nigeria has yet to develop industrially. This reform is focused on wealth creation through diversified production, especially in the agricultural and solid mineral sector. This requires Nigerians to choose to work, as hard work by all is required to achieve this reform.

Transport Sector—The transportation sector in Nigeria, with its poor road networks, is an inefficient means of mass transit of people and goods. With a goal of a modernized, industrialized Nigeria, it is mandatory that Nigeria develops its transport sector. The People's Democratic Party government has already started this process by the ongoing rehabilitation and modernization of the railway. While the reforms might take some time to take effect, it is a need that must be addressed.

Land Reforms—While hundreds of billions of dollars have been lost through unused government-owned land assets, changes in the land laws and the emergence of land reforms will optimize Nigeria's growth through the release of lands for commercialized farming and other large-scale business by the private sector. The final result will ensure improvements and boosts to the production and wealth creation initiatives.

Security—An unfriendly security climate precludes both external and internal investment into the nation. Thus, security will be seen as not only a constitutional requirement but also a necessary infrastructure for the development of a modern Nigerian economy. With its particular needs, the Niger Delta security issue will be the primary focus, marshaled not with physical policing or military security but through honest and accurate dialogue between the people and the federal government.

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*Oota and Adah, "Nigeria: Yar'Adua's Budget and the Seven Point Agenda."

Education—The two-fold reforms in the educational sector will ensure the minimum acceptable international standards of education for all. With that achieved, a strategic educational development plan will ensure excellence in the tutoring and learning of skills in science and technology by students who will be seen as the future innovators and industrialists of Nigeria. This reform will be achieved through massive injection into the education sector.

Appendix B

Definitions of Failed or Weakened States*

US Agency for International Development (USAID). In the 2005 *Fragile States Strategy*, USAID uses the term "fragile states" to include those that fall along a spectrum of "failing, failed, and recovering from crisis." The most severe form of fragile states is "crisis states," where conflict is ongoing or "at great risk" of occurring, and the central government does not exert "effective control" over its territory, is "unable or unwilling to assure the provision of vital services to significant parts of its territory," and holds "weak or nonexistent legitimacy among its citizens."

National Intelligence Council (NIC). In *Mapping the Global Future*, the NIC describes "failed or failing states" as having "expanses of territory and populations devoid of effective government control" which are caused by internal conflicts. In this report, the NIC considers the terms "post-conflict" and "failed state" to be synonymous.

National Security Council (NSC). The NSC defines "weak states" as lacking the "capacity to fulfill their sovereign responsibilities" in the 2003 *National Strategy for Combating Terrorism* (*NSCT*). The strategy document also describes some weak states as lacking "law enforcement, intelligence, or military capabilities to assert effective control over their entire territory." The NSC describes failing states in the 2006 NSCT as similar to "states emerging from conflict."

US Government Accountability Office (GAO). GAO, in its 2007 report *Forces That Will Shape America's Future*, defines failed or failing states as "nations where governments effectively do not control their territory, citizens largely do not perceive the governments as legitimate, and citizens do not have basic public services or domestic security."

US Interagency Working Group on International Crime. In the 2000 *International Crime Threat Assessment* report, an interagency working group created under the Clinton administration defines a failed state as "unwilling or unable" to meet "many of the accepted standards and responsibilities of sovereign control over its territory," which may lead to "significant economic deterioration and political unrest that threatens both internal and regional stability."

Organization for Economic Cooperation and Development (OECD). The OECD's Development Assistance Committee, of which the United States is a member, defines fragile states as lacking "either the will or the capacity to engage productively with their citi-

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zens to ensure security, safeguard human rights, and provide the basic function for development." They are further characterized as possessing "weak governance, limited administrative capacity, chronic humanitarian crisis, persistent social tensions, violence, or the legacy of civil war."

Political Instability Task Force (PITF). Originally commissioned by the Central Intelligence Agency's directorate of intelligence in 1994 and called the "State Failure Task Force," PITF defines state failure as a "range of severe political conflicts and regime crises" which is characterized by a "total or near-collapse of central political authority." The task force's statistical methodology identifies instances of politicide, genocide, adverse regime changes, and ethnic and revolutionary wars as situations when total or partial state failure occur.

US Commission on Weak States. This bipartisan commission, sponsored by the Washington Think Tank Center for Global Development, in its final 2003 report entitled *On the Brink: Weak States and U.S. National Security*, defines weak states as those with "governments unable to do the things that their own citizens and the international community expect from them: protecting people from internal and external threats, delivering basic health services and education, and providing institutions that respond to the legitimate demands and needs of the population."

World Bank. The World Bank's *Fragile States Initiative*, previously called *Low-Income Countries Under Stress (LICUS) Initiative*, describes fragile states as often characterized by poor governance, internal conflicts or tenuous postconflict transitions, weak security, fractured societal relations, corruption, breakdowns in the rule of law, and insufficient mechanisms for generating legitimate power and authority. All are low income, which is defined as countries with a 2006 gross national income per capita of $905 or less, calculated using the World Bank's Atlas Method.

Nigerian Military Forces

Nigerian Air Force Order of Battle[1]

Unit	Base	Primary Aircraft
Tactical Air Command	HQ Makurdi	
65 Air Defense Group	Makurdi	
Combat Squadron	Makurdi	MiG-21
Combat Squadron	Maiduguri	MiG-21
75 Strike Group	Yola	
81 Air Maritime Group	Benin	
Maritime Squadron	Benin	Dornier 128/228
Maritime Squadron	Benin	Dornier 228
88 Military Airlift Group	Lagos	
221 Wing	Lagos	C-130
227 Wing	Llorin	G222
97 Special Forces Group	Port Harcourt	
Combat Squadron	Port Harcourt	Mi-35P
99 Air Weapons School	Kainji	
Training Squadron	Kainji	Alpha Jet
Training Command	HQ Kaduna	
301 Flying Training School	Kaduna	Air Beetle, Dornier 128/228
303 Flying Training School	Kano	
305 Flying Training School	Enugu	Mi-34

Nigerian Air Force Major Equipment

Type	Role	Initial Total/ In Service	First Delivery
MiG-21MF	Air Defense	30/0	1975
Jaguar SN	Air Defense	13/0	1984
Alpha Jet	Trainer/Light Attack	24/12	1981
G222	Transport	6/6	1985
C-130	Transport	9/1-2	1975
125 Srs 800B	Communications	1/1	2007
Business Jet, Boeing	Communications	1/1	2006
Falcon 900	Communications	2/2	1994
550 Citation II	Communications	1/1	2005
G-1159 II	Communications	1/1	1976
G-1159 IV	Communications	1/1	1990
G-1159 IV	Communications	1/1	2001
128-6 Dornier	Utility/Transport	16/10	1984
228-100 Dornier	Utility/Transport	1/1	1984
228-201 Dornier	Utility/Transport	2/2	1984
228-212 Dornier	Utility/Transport	6/4	1996
L-39ZA	Trainer/Light Attack	24/12	1986
MB-339A	Trainer/Light Attack	12/12	1983
MiG-21UM	Trainer	6/0	1975
Jaguar BN	Trainer	5/0	1984
Air Beetle	Trainer	60/55	1994
AS 332M1 Super Puma	Utility	6/4	-
Mi-35P	Attack	6/5	2000
Mi-34S	Trainer	6/4	2001
AW139	VIP Transport	2/2	2006

Nigerian Army Order of Battle[2]

Base	Unit
Abuja	Presidential Guard
Enugu	82nd Division
Ibadan	2nd Division
Llorin	
Jos	3rd Armored Division
Kaduna	1st Mechanized Division
Lagos	81st Division

Nigerian Army Major Equipment

Type	Role	Initial Total/ In Service
Armor		
T-55	Main Battle Tank	129/100
Vickers Mk 3	Main Battle Tank	150/36
Scorpion 76 mm	Reconnaissance	100/70
Scimitar	Reconnaissance	-/5
VBL	Reconnaissance	72/72
EE-9 Cascavel	Reconnaissance	75/70
AML 60-7	Reconnaissance	90/60
Fox	Reconnaissance	55/50
AML 90	Reconnaissance	120/40
Saladin Mk 2	Reconnaissance	-/20
Sagaie 1	Reconnaissance	46/-
Steyr 4K 7FA	Personnel Carrier	300/250
MOWAG Piranha	Personnel Carrier	70/70
Saracen	Personnel Carrier	10/10
Saxon	Personnel Carrier	75/4
Casspir III	Personnel Carrier	-/5
MT-LB	Multi-Purpose	67/-
Artillery		
155mm Palmaria	Self-Propelled Howitzer	25/25
155mm FH-77B	Howitzer	48/25
130mm M-46	Field Gun	7/5
122mm D-74/D-30	Field Gun	200/84
105mm	Light Gun	-/48
105mm M-56	Howitzer	200/180
105mm M-56P	Howitzer	-/24
122mm APR 40	Rocket Launcher	11/11
122mm BM-21	Rocket Launcher	8/-
Anti-Tank Weapons		
89mm LRAC	Anti-Tank Gun	-/24
3.5" RL M20	Anti-Tank Gun	240/24
RPG-7	Anti-Tank Gun	-/3000
84mm Carl Gustav	Anti-Tank Gun	154/100
Swingfire ATGW		-/-
Air Defense Weapons		
SA-7	Manportable SAM	100/50
Blowpipe	Manportable SAM	-/40
Roland 2	SAM / AMX-30 Chassis	16/16
ZSU 23-4	Anti-Aircraft Gun	30/30
ZU 23	Anti-Aircraft Gun	-/350
40mm Bofors L/60	Anti-Aircraft System	50/12

Notes

1. Jane's Information Group, "World Air Forces, Nigeria," 2–7.
2. Jane's Information Group, "World Armies, Nigeria," 2–9.

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