

Imagine Nigeria

Exploring the Future of Nigeria



Imagine Nigeria is a report by the High Level Panel established to explore the Future of Nigeria

THE MEMBERS of THE HIGH LEVEL PANEL

of Nigeria

Founding Member &

Former Partner at Actis

Yemi Osinbajo, SAN,	Mohamed Yahya	Adeyemi Dipeolu
Chair, Vice President	Resident Representative	Simon Ridley
of Niaeria	of UNDP Nigeria	Tunii Lardner

Zainab Shamsuna Ahmed	Myma Belo-Osagie	The Technical Secretariat, undertook
Minister of Finance,	Partner Emerita	the day-to-day activities in support
Budget & National	(Of Counsel) Udo Udoma	of the Advisory Board.
Planning	& Belo-Osagie	

THE HIGH LEVEL PANEL WAS SUPPORTED

by A STEERING COMMITTEE

		Olugbenga Adesida, Lead Advisor
Clem Agba	Shamsuddeen Usman	Somkele Awa-Kalu
Hon. Minister of State	Economist & Banker	Sylvain Boko
for Budget & National		Saenandoah Tiradentes Dutra
Planning of Nigeria	Tonye Cole	Olamide Fagbuji
	Co-founder & former	Jonathan Glennie
Ibrahim Cambari	Group Executive Director	Paulo Poborto Citirana do Araújo C

Ibrahim Gambari **Group Executive Director** Paulo Roberto Gitirana de Araújo Guerra Chief of Staff to the of Sahara Group **Chris Ngwodo** President of Nigeria Kolawole Omole Udoma Udo Udoma Lanre Shasore, Coordinator Adiba Ighodaro

Immediate past Nigerian **Akin Soetan** Minister of Budget & Lai Yahaya National Planning Aisha Tijjani Yusuf

As a participatory process, many individuals and experts participated in the exercise. Many experts were interviewed, some participated in workshops, some were members of the team that developed the scenarios, while others prepared background policy briefs. Additionally, many stakeholder groups were consulted across the country in workshops or $focus\ group\ meetings.\ The\ acknowledgement\ list\ is\ in\ the\ Annex.\ The\ funding\ for\ the\ exercise$ was provided by the United Nations Development Programme (UNDP) Nigeria.

All involved participated in their personal capacity as part of the reflection on the future of Nigeria and the outcome represents the collective views and does not represent the individual opinions of any single person or the organisations to which they are affiliated.

 $The \, members \, of \, the \, High \, Level \, Panel \, worked \, on \, this \, project \, on \, a \, volunteer \, basis.$

Contents

	Abbreviations7	04	Imagining F
	List of Figures / Graphs / Boxes / Tables8		Introduction
	Preface9		
	Summary 12		Fire on The N
			2025: A poor
01	Introduction		amplified Nig
	A unique moment of opportunity15		2035: The Ru
	A historical perspective16		The Digital D
	The urgency of now		The Sweatsh
	Report structure		2045: The re
			Resistance
\rightarrow	PART One		
	Analysis: The challenges20		Which Way N
			2025: Toward
02	Nigeria Today21		2035: New su
	The economy is in transition		2045: Conflic
	Conflict is a constant factor24		
	Infrastructure is deficient25		One Chance
	Governance		2025: The Tro
	Natural resources: from curse to blessing27		2035: Deal w
	Human resources: Nigeria's great opportunity 27		Climate char
	Regional leadership29		2045: The Pu
	Conclusion		Fork in the Ro
\rightarrow	PART Two		African Gian
	Futures: The possibilities		2025: Finally
			2035: Enviror
03	Global Trends		economic op
	Politics and Economics		2045: Respec
	Demography: crisis or blessing36		Signposts for
	Technology		
	Digital divide or digital transformation39	\rightarrow	PART Three
	Environment40		Recommend
	Going green41		The Way For
	What does the future hold?43		Five focus ar

4	Imagining Futures: Four Scenarios for Nigeria45
	Introduction to scenarios
	Fire on The Mountain47
	2025: A poor response to COVID-19 has
	amplified Nigeria's social fractures49
	2035: The Rule of the Cabals50
	The Digital Dons50
	The Sweatshop Kingpins51
	2045: The resistance emerges51
	Resistance
	Which Way Nigeria?53
	2025: Towards the surveillance state55
	2035: New surveillance technologies55
	2045: Conflict56
	One Chance
	2025: The Trojan Horse61
	2035: Deal with the Devil62
	Climate change and health crises62
	2045: The Pushback63
	Fork in the Road63
	African Giant Awake!
	2025: Finally tackling entrenched problems67
	2035: Environmental innovation has led to
	economic opportunity67
	2045: Respected leadership in Africa69
	Signposts for the scenarios71
•	PART Three
	Recommendations: The Opportunities74
	The Way Forward75
	Five focus areas for building forward76

05	Build a Culture of Innovation77	80	Build Trust	
	Strategic goals80		Nigeria at an Inflection Point	
	The crucial role of the state81		Towards Better Governance	118
	RECOMMENDATIONS		RECOMMENDATIONS	
	1.1 Build a National System of Innovation81		4.1 Substantially Increase Citizen Engagemen	nt120
	1.2 Build Anticipatory Governance Capability84		4.2 Ensure Inclusion and Participation	120
	1.3 Invest in key sectors86		4.3 Building Institutions	122
	1.4 Enable digital transformation with regulation 87		4.4 Decentralise Government	121
	1.5 Build a Robust Monitoring &		4.5 Invest in National Peacebuilding Architec	ture 124
	Evaluation (MERL) System89		4.6 End Impunity	125
			4.7 Digitalise Government Services	
06	Catalyse the Green Economy93			
	Green wealth creation	09	Facilitate a National Narrative	129
	Can Nigeria rise to the challenge?95		Strengthening the Bonds of Togetherness	130
			Deepening our Ties	
	RECOMMENDATIONS			
	2.1 Embed the Green Agenda in Economic Policy 97		RECOMMENDATIONS	
	2.2 Invest in Renewable Energy100		5.1 Reclaim History for Civics	131
	2.3 Manage Waste Better100		5.2 Decolonise the Past	
	2.4 Green the value chain101		5.3 Engage Popular Culture	132
	2.5 Provide Opportunities for Greener MSMEs 101		5.4 Revitalise Integrative Institutions	
	2.6 Build a Green Institutional Framework103		5.5 Create a Pantheon of Heroic Exemplars	
07	Lead Africa	10	Conclusion	135
	Towards African Leadership106		The five pillars of change	
			Implementation	
	RECOMMENDATIONS		Co-design and Co-opt	
	3.1 Maximise Economic Advantage107		Prioritise	
	3.2 Enhance Strategic Military Leadership		Systematise and Sequence	
	3.3 Invest in Diplomacy111		Operationalise	
	3.4 Modernise Development Cooperation		Measure and Monitor	
	3.5 Further Realise Cultural Impact114			
	3.6 Leverage the Nigerian Diaspora115		Acknowledgements	141
	old 2010. ago nio riigorian Biacpora		Endnotes	

Abbreviations

#ENDSARS	Decentralised social movement	GII	Global Innovation Index.	NIREC	Nigeria Inter-religious Council.
	comprised of a series of mass	GHG	Greenhouse Gases.	NLTP	National Livestock
	protests against police brutality	GNP	Gross National Product.		Transformation Plan.
	in Nigeria, which called for the	Govtech	Technology infrastructure	NRIC	National Research and
	disbanding of the Special Anti-		and innovative solutions that		Innovation Council.
	Robbery Squad (SARS),		governments use to do their	NSI	National System of Innovation.
	a unit of the Nigerian Police.		internal work or provide services	NSIA	Nigeria Sovereign Investment
5G	5th generation mobile network		to citizens.		Authority.
	(global wireless standard).	GPT	General-Purpose Technology.	NTCF	Nigeria Technical Cooperation
AfCFTA	African Continental Free Trade Area.	HBCU	Historically Black Colleges and		Fund.
AfDB	African Development Bank.		Universities.	NTF	Nigeria Trust Fund.
Al	Artificial Intelligence.	НМО	Health Maintenance	NVIT	Nigeria Virtual Institute of
APCs	Armoured Personnel Carriers.		Organisations.		Technology.
APIs	Application Programming Interfaces.	IC	Integrated Circuit.	NYSC	National Youth Service Corps.
ASF	Africa Standby Force.	ICPC	Independent Corrupt Practices	OECD	Organisation for Economic
AU	African Union.	ICT	Commission. Information and communications	OCI	Co-operation and Development.
BATs	term used to collectively refer to	ici	technology.	PBMR	Overseas Citizenship of India. Pebble Bed Modular Reactor.
	China's three digital giants, Baidu,	ID	Identity.	PPPs	Public-Private Partnerships.
BPP	Alibaba and Tencent.	IDC	Industrial Development	PSET	Post-School Education And
BREXIT	Bureau of Public Procurement.	.50	Corporation.	1021	Training.
BREATT	A combination of the words Britain and exit, refers to the process in	IDPs	Internally Displaced Persons.	QoS	Quality of Service.
	which the United Kingdom left the	ILO	International Labour	R&D	Research and Development.
	European Union.		Organisation.	RAHS	Risk Assessment and Horizon
BRICs	Brazil, Russia, India, and China.	IMF	International Monetary Fund.		Scanning.
C2C	Citizen to Citizen.	INEC	Independent National Electoral	RECs	Regional Economic Communities.
C2G	Citizen to Government.		Commission.	SARS	Special Anti-Robbery Squad.
CBN	Central Bank of Nigeria.	loT	Internet of Things.	SKA	Square Kilometre Array
СВО	Community-based Organizations	IPCR	Institute for Peace and Conflict		(intergovernmental radio
CO,	Carbon dioxide, a greenhouse gas.		Resolution.		telescope project being planned
CSF	Centre for Strategic Futures.	IPR	Intellectual Property Rights.		to be built in Australia and South
CSOs	Civil Society Organisations.	ISP	Internet Service Provider.		Africa).
DFIs	Development Finance Institutions.	KPI	Key Performance Indicators.	SMEDAN	Small and Medium Enterprises
DHP	Digital Health Pass.	LBC	Left behind class.		Development Agency of Nigeria.
DIY	Do-it-yourself.	M&E	Monitoring and Evaluation.	SMEs	Small and Medium Enterprises.
DTCA	Directorate of Technical Cooperation	MDAs	Ministries, Departments and	SOE	State-Owned Enterprises.
	in Africa.		Agencies.	SPO	Strategic Policy Office.
DVP	Digital Vaccination Passport.	MEC	Multi-access Edge Computing.	SSA	Sub-Saharan Africa.
DRC	Democratic Republic of the Congo.	MERL	Monitoring, Evaluation,	STEP	Scientific and Technical
E&M	Entertainment and Music.	MITI	Reporting and Learning System.	CTI	Exchange Programme.
E-government	Electronic government	MITI	Ministry of International Trade and Industry.	STI	Science, Technology, and Innovation.
	(use of ICT to provide public	MNCs	Multinational Corporations.	SWTD	Kerala State Water Transport
FCOMOC	services).	MOOCs	Massive Open Online Courses.	3415	Department.
ECOMOG	Economic Community of West	MSMEs	Micro, Small, And Medium	TAC	Technical Aid Corps.
ECOWAS	African States Monitoring Group. Economic Community of	MOMES	Enterprises.	TIA	Technology Innovation Agency.
ECOWAS	West African States.	MW	Megawatt.	TSMC	Taiwan Semiconductor
EFCC	Economic and Financial Crimes	NACI	National Advisory Council on		Manufacturing Company.
2,00	Commission.		Innovation.	UBI	Universal Basic Income.
EU	European Union.	NBS	National Bureau of Statistics.	UN	United Nations.
FAANGs	term used to collectively refer	NDC	Nationally Determined	UNAMID	United Nations-African Union
	to the tech giants Facebook,		Contributions.		Mission in Darfur.
	Amazon, Apple, Netflix, and Google.	NEDLAC	National Economic Development	UNDP	United Nations Development
FBOs	Faith-based Organisations.		and Labour Council.		Programme.
FDI	Foreign Direct Investment.	NEF	National Economic Forum.	UNESCO	United Nations Educational,
Fintech	Financial technology (alternative	NGFCP	Nigerian Gas Flare		Scientific and Cultural
	delivery of financial services via		Commercialisation Programme.		Organisation.
	technology and innovation).	NGN	Nigerian Naira.	UPR	Universal Periodic Review, a
FIRS	Federal Inland Revenue Service.	NGOs	Non-Governmental		review of the human rights
GaaP	Government as a Platform.		Organisations.		records of all UN Member States.
GBCF	Gauteng Business Consultative	NHRC	National Human Rights		It is a State-driven process,
	Forum.	We entire	Commission.		under the auspices of the United
GDP	Gross Domestic Product.	NIDCOM	Nigerians in Diaspora	110 0100	Nations Human Rights Council.
GEOB	Gender and Equal Opportunities Bill.	NIDO	Commission.	US/USA	United States of America.
GERD	Gross Domestic Expenditure on	NIPC	Nigerian Investment Promotion	VAT	Value Added Tax.
_	Research and Development.	NIPMO	Commission. National Intellectual Property	WWII	World War II.
Gg	Gigagrams.	AIFMO	Management Office.		

Management Office.

List of Illustrations / Figures / Graphs / Boxes / Tables

	Illustrations	
1 →	→ Imagine Nigeria methodology	16
2	Nigeria today Overview	22
3 •	Global Megatrends. Tendencies for the next 20 to 40 years	36
	Figures	
1 •	Global trends and possible responses	45
2	Linkages among the five recommendations for building forward	76
3 •	Towards African Leadership — Analytical Framework	107
	Graphs	
1 •	Internet Users per 100 Inhabitants	40
	Boxes	
1	The Peak of Oil?	39
2	,	
3	National innovation strategy China	83
4	Building National Systems of Innovation (NSI) South Africa	85
5	Building anticipatory capabilities Singapore and Finland	86
6	Dynamic regulation	87
7	Cautionary tales on innovation South Africa	90
8	Ideas for green wealth creation in Nigeria	95
9 🕨	Technical Cooperation Funding in Nigeria	114
0 •	Best practices in e-government — Brazil	128
	Tables	
1	* "Signs that a scenario is becoming likely"	7
2	Comparative analysis of countries that have used innovation to accelerate their economies	78
3	The "Seven I's" (+1) of regional integration applied to innovation culture in Nigeria	79
4	OECD public sector innovation agenda for action	80
5	Analysis of strategic options	82
6	Strategy to transform Nigeria into a green economy	99
7	Sample prioritisation matrix tool	137

Preface

The members of the High Level Panel were invited to shepherd this project from concept to implementation due to a shared belief in the future of Nigeria and the role it could play in the transformation of our continent, Africa. The uniqueness of this project is to be found in the fact that it is a bold and unfettered look into Nigeria's future in the coming decades of the twenty-first century, rather than a national plan comprising projects. It provides a licence to imagine a Nigeria better than its storied past and its compounded present. There is no better time to think about the future of Nigeria than now; and this is for several reasons.

First, the world is under the assault of the Coronavirus pandemic which has led to a global health and economic crisis since early 2020. Despite the havoc wreaked by the pandemic, it has also provided the world an opportunity to see and to learn that existing systems are simply not sustainable and that there is a need for change. The main question however is: What changes will be needed to build a just post-COVID-19 world?

Beyond the COVID-19 pandemic, Nigeria faces critical decisions. Among these is the looming end to the oil economy which provides our dominant export product and generates the most foreign exchange earnings for Nigeria. We are also dealing with effects of climate change, which is already impacting our country in various ways, from driving migrations to affecting the livelihoods of many. There are also those who seek to threaten the peace and stability of the country. Furthermore, the voices calling for greater inclusion are getting louder.

While Nigeria is facing these challenges and many others, the country also has numerous and significant opportunities which can be seized for national transformation. Its sheer size and population makes it the biggest market in Africa. It has the biggest economy; Nigeria remains the major power on the continent. It has been a leader in international peacekeeping efforts, and its creative industry – from film, music to design – provides the country with significant soft power that is unmatched. Nigeria is looked up to by many in and outside of Africa to help lead the continent. In addition, the Nigerian private sector and, in particular, the young people are leading a technological revolution. Today, Nigeria is the preferred destination of foreign investors in Africa especially in the technology sector. Nigerian firms are expanding across the continent and Nigeria is now expected to help lead the Africa Continental Free Trade Agreement (AfCFTA).

In light of this belief, our Panel, with the support of our technical team, led a strategic reflection and conversations on the future of Nigeria. The idea was to engage as many Nigerians and experts in and outside of Nigeria as possible to think about the future in order to answer some questions: Where are we as a nation? What are the possibilities of the future? What must be done to ensure the transformation of Nigeria?

These questions formed the basis of the various activities undertaken over a 9-month period to produce this report and its associated outputs. The report is presented in three parts: Part one focuses on analysis; Part two presents the global trends and future scenarios for Nigeria while Part three proposes five recommendations to transform Nigeria. We are convinced that if all Nigerians come together we can bring about change and the desired future for all. Our recommendations centre on our nation working towards building a culture of innovation, catalysing the green economy, leading Africa, build trust, and facilitating a national narrative.

For us, this is not the end of the process but the beginning. This exercise is not about predicting the future of Nigeria; rather it is about initiating a process of national reflection and facilitating the engagement of all Nigerians in building the future we desire.

As such, we are making the dialogue and reflection open to all Nigerians. Our call is for everyone in civil society, firms, organisations, and individuals to promote a dialogue using the outputs of this exercise as the starting point for their own reflection on the future. This call for open dialogue is also a call to action to focus on what we can do to start building from today the country we want for ourselves and for the next generations. The key questions are: What must be done? What are our roles as stakeholders? And how do we engage with others? How shall it be achieved?

The task before us as a nation is to create our desired future. We therefore challenge everyone to engage with this process and be a part of mobilising the necessary collective actions. Importantly, we need everyone to lead from their own respective corner of our country in order to help bring about the transformation that we all desire.

The Imagine Nigeria exercise and its outputs are only the seeds; it is now left to all of us to begin to act.

Nigeria is capable of achieving its perfectly possible dreams.

However, there will be a need for fundamental reforms.

Trust and dynamism will be the key to renewal.

Summary

COVID-19 has led to a global health and economic crisis, which has left few countries unscathed. Like many countries, Nigeria is struggling to overcome the immediate challenges presented by the pandemic such as rising levels of inequality, ethnic tensions, and political violence. Despite these seemingly insurmountable challenges, the crises created by COVID-19 also presents opportunities for Nigeria to build a more inclusive and resilient economy. For the Nigerian economy to achieve its full potential, the country must first prioritize ensuring good governance across all institutions and enhancing citizen trust.

The Nigerian economy and society are facing daunting challenges, yet significant opportunities do exist. Economic problems combine with conflict, both social and armed. But it also has great opportunities related to the creativity and diversity of its people, and the simple fact of its geography. Critically, the persistent failure to build a governance model that can serve as the basis of a thriving society and economy continues to be Nigeria's major blockage. Building a bright future for Nigeria will require the governance problems to be alleviated.

Linking Nigeria's current challenges and opportunities in the context of prevailing and emerging global trends, we set out four plausible future scenarios which we call: Fire on the Mountain, Which Way Nigeria, One Chance and African Giant Awake. A sustainable powerful future in which Nigeria leads the rest of Africa as an economic powerhouse is a distinct possibility, if the right — very bold — decisions are made. Conversely, a descent into conflict is equally possible, as the internal contradictions of a system that fails to respond to national and global trends jeopardize recovery, stifle growth and worsen instability. Between these two extremes, the other scenarios portend a Nigeria that either succumbs to poor governance or fails to manage the technology revolution. In both cases, the scenarios envisage the country failing to attain its full potential.

To achieve its potential Nigeria must make big decisions now and follow them through with wisdom and courage. The three main policy interventions required to push Nigeria towards a brighter future can be summarised in three words: innovation, green and regional. An economic, social and political revolution built on the culture of innovation would enable Nigeria to leap into the 21st century, transforming human capital and underpinning a fast-growing economy. Building on this, a push to go green is the right option for Nigeria, resulting in faster growth and better outcomes across the board, for businesses and communities alike. And strong regional leadership, particularly in trade, the key to Nigeria's growth, will support both of these directions.

But policy without process is like a roadmap without a car. Nigeria is capable of achieving its perfectly possible dreams. However, there will be a need for fundamental reforms. Trust and dynamism will be the key to renewal. As part of the proposed renewal in this document, all sectors in society must come together to discuss priorities for the country and ways to build trust and engender a grand national narrative for a renewed and rebranded country.

Imagine Nigeria

12



"I will like to see a Nigeria where our most vulnerable and marginalized populations become active participants in their own sustainable growth and development"

Zaliha Abdulhamid Lawal



"I want to see a Nigeria that is self-reliant and not dependent on the rise or fall in the price of a particular resource when we are blessed with so many others."

Bernice Abeku Achi





"I want to see a Nigeria where we have quality education, where our products can handle our situation and provide solutions."

Mika'il Haruna Daya







"I want to fall endlessly in love with Nigeria. More importantly, I want Nigeria to fall in love with me, first as an African woman, as a Nigerian, as a young person, as an active citizen, as an entrepreneur and as a hardworking person. Because if you fall in love with me, you will make things easy for me to thrive."

Ayisat Olabimpe Agbaje



Reflect on the future. Brainstorm big ideas. Find alternative possibilities.

Imagine a sustainable & prosperous Nigeria and make it happen.



"My aspiration for Nigeria is to see us get to a place where we focus more on local content creation and attain self-reliance; a Nigeria where we recognise, appreciate and utilise our local content."

Albert Alexander Kure







"I want to see a Nigeria (Africa) where the West looks up to us for solutions."

Tolulope Olusola Adetunji



"I want to see an accountable and just Nigeria, where resources are employed to their full potentials. A Nigeria where everyone has access to affordable and sustainable energy. A Nigeria united by a common purpose of national progress and development."

> Muhammad Mubarak Abdulkarim



01 Introduction

A UNIQUE MOMENT OF OPPORTUNITY

This report is a reflection on the future for the transformation of Nigeria, taking advantage of the unique circumstances of the COVID-19 context. It is the outcome of a foresight exercise undertaken independently under the auspices of the High Level Panel which included leaders from government, business and civil society with the support of a technical secretariat.

The aim was to reflect on the future, imagine alternative possibilities for Nigeria, and propose a portfolio of big ideas that could lead to a sustainable and prosperous Nigeria.

We hope the report will feed into the medium-term national development planning efforts of the government, the Vision 2050 program, as well as serve as inputs for the private sector and civil society in general in their decision making.

For Nigeria, home to the largest number of multi-dimensionally poor in the world and ranking 161 out of 189 countries on the Planetary pressures-adjusted Human Development Index (2020)¹, the pandemic is expected to significantly compound the already vulnerable socio-economic conditions of the country, especially for the poorest. The slump in oil prices, lockdowns and restrictions on the movement of people have already dealt a severe blow to the Nigerian economy as the government's ability to strike a balance between the technicalities of virus containment and much needed socio-economic buffers is seriously constrained.

COVID-19 has laid bare the cracks in economic and social structures in Nigeria (as it has in most other countries) [...] One thing is clear: the status quo is unsustainable.

COVID-19 has laid bare the cracks in economic and social structures in Nigeria (as it has in most other countries). Whether it be unrestrained growth in inequalities, tolerated for far too long, continued dependence on a commodity that is losing its significance and has proven unable to keep pace with the needs of a growing population, or the damaged social contract, one thing is clear: the status quo is unsustainable.

A HISTORICAL PERSPECTIVE

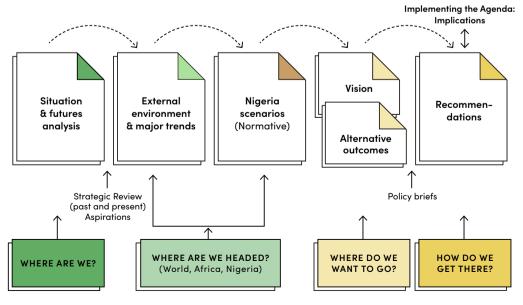
Although the immediate future is challenging, our collective histories have shown us that embedded within episodes of crises are opportunities to reassess, rebuild and re-emerge, charting a bold course towards a more prosperous society. Other crises have set the foundations for long-term prosperity. For example, the Spanish Flu revolutionised the approach to public health systems and resulted in the creation of national health services in many European

countries; the Great Depression ushered in the modern welfare state; and World War Two set the stage for global peace, cooperation and multilateralism. We have also witnessed economic miracles rising from the debris of crisis, including in Japan, Singapore and South Korea.

In the case of Japan, WWII destroyed much of the progress the country had made in previous decades. Industrial production had dropped to one-tenth of pre-war levels; 25% of the national wealth had been lost; GDP per capita had dropped by 47%; and commodity shortages resulted in rampant hyperinflation.² Japan embarked on coordinated post-war economic reform strategies, including the National Income Doubling Plan of 1960, with its objective to 'catch-up' to Western industrial economies. Through these reforms, Japan entered a period of rapid economic growth. Between 1955 and 1972 annual real GDP growth rates averaged 9.3% and resulted in a transition from excess supply to labour shortage.³ By 1991, Japan's GDP per capita rivalled that of Britain and the United States.

ILLUSTRATION 1 > Imagine Nigeria methodology.

Overview of how the report was conceived.



Introduction

For Singapore, its expulsion from Malaysia led to the creation of a fledgling independent republic on 9 August 1965. It was a new country with barely 581.5 km² of land, no natural resources, high levels of unemployment and significant housing shortages. With the multiplicity of challenges, Singapore was a country facing a future full of uncertainty.⁴ Given the challenging development context for the new nation, it embarked on visionary thinking, meticulous planning and relentless application. This was successful in giving shape to Singapore's industrial and development policies and a public administration that would guide the nation's economic and social development.⁵

Often referred to as the Miracle on the Han River, South Korea's post-war rebuilding efforts were equally impressive. The Korean War (1950-1953) destroyed up to 44% of South Korea's manufacturing facilities with total civilian damage reported to be larger than the GNP of 19536. The country experienced rampant unemployment with over 40% of the population living in absolute poverty and per capita income lower than that of Haiti, Ethiopia and Yemen and about 40% below India's7. Guided by a phased export-based industrialisation strategy in the 1960s, South Korea experienced a period of unmatched growth and massive mobilisation of labour and capital. Between 1961 and 1980 the country experienced annual real GNP growth rates of over 9% and real GDP per capita increased 18-fold from US\$87 to US\$1,4818. During the same period, exports grew at an average annual rate of 34%9. Foundations for today's industrial leaders, including LG and Hyundai, were laid during the same time. Today, South Korea has a large footprint in the global economy and is part of the G20 — a pronounced difference to the economic status of countries it was comparable to not long ago.

What guided rebuilding efforts in Japan, Singapore and South Korea — along with others such as the United States, United Kingdom and West Germany who all experienced a golden era of economic growth following WWII — was not the invisible hand of the market alone, but rather the strong and visible hand of the State working with markets. Calibrated cooperation among all economic agents, led by a bold vision that was nationally owned, allowed for the implementation of an unusually focused development strategy and the reorientation of societies towards unparalleled social transformation and prosperity.

A key part of the story in these countries was an elite consensus that was developmental and aimed at national transformation.

Closer to home on the continent, some examples can be highlighted for rapid economic growth and socioeconomic development following a period of national turmoil, including Ethiopia and Rwanda, despite their obvious limitations. Others such as Mauritius and Botswana have also made significant strides in socioeconomic development and promoting democratic governance. Undoubtedly, Nigeria is more complex and facing a different set of circumstances. But change is possible.

We believe that, amid the present challenges, an opportune moment presents itself for Nigeria: to break away from inertia and implement visionary thinking that realizes Nigeria's potential; to recommit to the social contract with her people; and to locate the unwavering resilience and creativity of its people at the centre of the way forward.

THE URGENCY OF NOW

The contours of tomorrow will be shaped by the ambitions that Nigeria sets for itself today. To expect life to go back to how it was in 2019 would be misguided. Trying to return to a previous status quo would be a recipe for disaster. Apart from health crisis, Nigeria is facing various existential threats including the unprecedented and unpredictable effects of climate change, the rising insecurities which has now spread essentially to all its six geopolitical zones, and the looming end of the oil economy ^{10, 11} while population continues to grow unabated. Nigeria must nowbrace for demographic boom or burst. In what is undoubtedly a watershed moment in history, Nigeria must take advantage of the crisis to redefine its fortunes and circumstances. Nigeria must prepare to leap.

The unprecedented nature of this crisis demands a response that is human-centred and leaves no one behind. First and foremost, the multi-sectoral nature of the crisis presents an opportunity for re-prioritisation as well as strengthening partnerships and integrated responses. Some of the challenges are a consequence of long-term trends (globally, regionally and nationally), such as rising insecurity, corruption, and state ineffectiveness, while others relate to more unexpected crises, such as the COV-ID-19 outbreak and youth's restiveness exemplified by the recent #ENDSARS demonstrations.

If Nigeria responds boldly, building on its considerable assets and managing its problems creatively, Nigeria could emerge as a major player over the next years and decades, not only within Africa, but also globally. Nigeria's size, its dynamic people, as well as its soft and hard power makes it a natural leader on the African continent.

A Nigeria that is awake can seize on its cultural power and goodwill to lead the continent. On the technology front, for example, several Nigerian start-ups have grown to become unicorns in recent years. The fintech revolution is growing in Nigeria while its commercial banks have spread across the continent, just like its music and Nollywood are now enjoyed all over the world. With the West and East preoccupied with their own internal challenges, Nigeria, possibly for the first time in its history, has a chance to build a continental alliance for Africa's transformation.

But this will require a shared national vision, foresight, commitment and broad-based leadership to drive change. "Business as usual" is not an option because it will lead us as a nation to a dead end. Nigeria needs a bold new direction. This is a moment for national renewal. All sections of the Nigerian society need to be engaged.

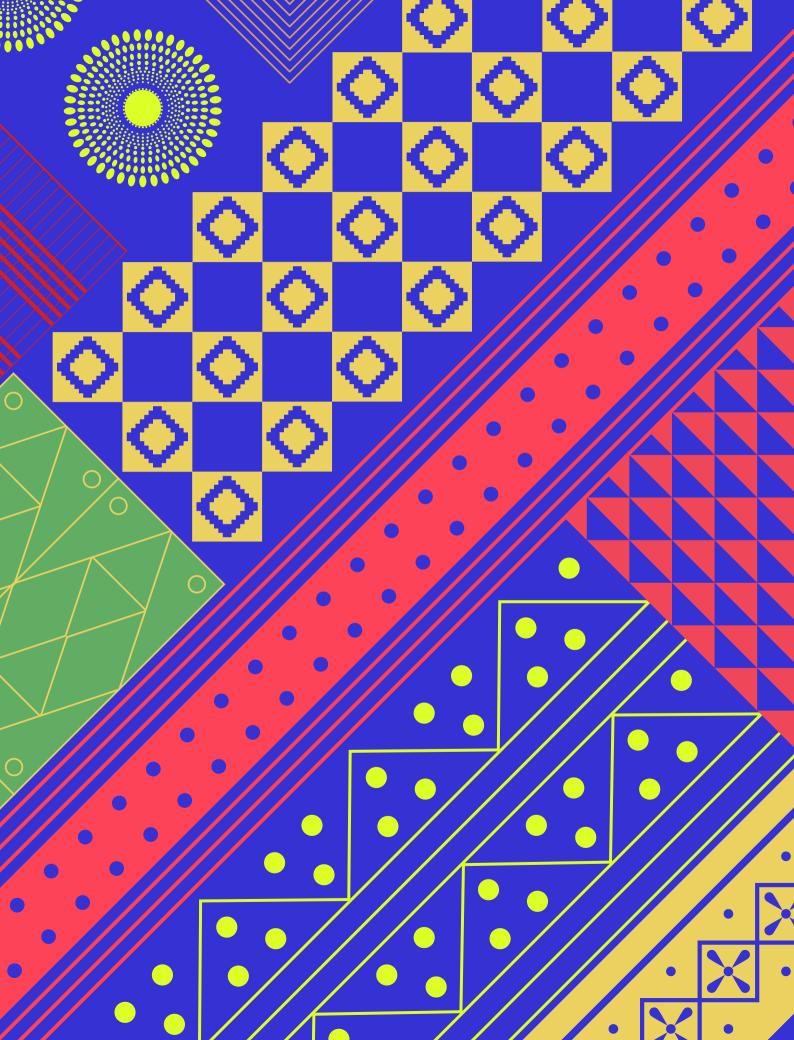
The world is watching.
We must seize the moment.

Report structure

This report is divided into three main sections. The first, the Analysis section, examines Nigeria in a global context; both the challenges it is facing and the opportunities it can capitalise on.

In the second section, we analyse global trends affecting our world and which Nigeria will have to manage as well as the internal factors which will shape the future of Nigeria. Putting them together, we suggest four plausible scenarios for the next 30 years.

The third section provides five recommendations. Three of these recommenda-tions might be described as economic and foreign policy: Culture of innovation, Green Economy and Lead Africa. The fourth is about building a Trusted and Dynamic Government — the key to unlocking progress in Nigeria. And the fifth recommendation is that Nigeria must engage all sections of its diverse society in a process of building a new grand narrative as a basis for a new social compact, which will serve as the basis of uniting Nigerians in the push for transformation.



Part One.

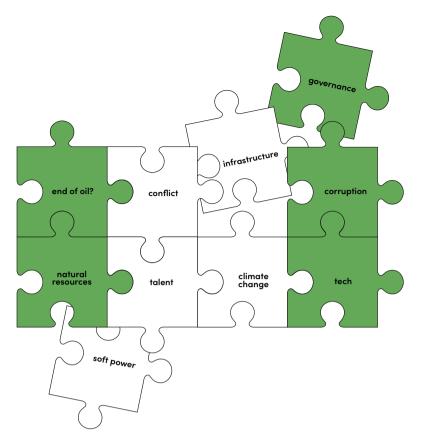
Analysis: The Challenges

02 Nigeria Today

A country full of opportunities

Nigeria in 2021 is a country full of opportunities and in which the seeds of change which could lead Nigeria to the desired future are already present or emerging. In a world in constant flux and in which the advanced industrial nations are focused on addressing the challenges within their own borders, the present period presents Nigeria a unique opportunity. However, if Nigeria does not rise up, as a collective, and move quickly, the future can easily be derailed by the multiplicity of existential threats and challenges which could turn the Nigerian dream into a nightmare.

In this section, we briefly set out some of this context, which is the backdrop of the possible futures for Nigeria, and provide the basis for the recommendations we make later in this report. We look at seven areas in particular: Economy, Conflict, Infrastructure, Governance, Natural resources, Human resources, and Regional leadership.



THE ECONOMY IS IN TRANSITION

The COVID-19 pandemic has hit Nigeria when the economy was gradually recovering from the 2016 recession and, together with the sharp drop in oil prices, lockdowns, restriction of movement and disruptions to production and supply chains, it is having a knock-on effect on the Nigerian economy. The Nigerian Bureau of Statistics registered a -1.9% contraction in the country's economy in 2020, a decline of -4.20% points when compared to the 2.27% growth recorded in 2019¹², as well as an inflation rate increase of 15.75% (year-on-year) in December 2020, the highest rate recorded in three years¹³. The budget continues to be under severe pressure, partly because a timid economic recovery is expected during the next two years, with GDP projected by NBS to grow by only 2.45% in 2021 and 2.92% in 2022.14 The economic pressures are also due to international oil prices, which should indeed be higher in 2021 compared to the pandemic driven collapse of 2020; Oil prices are expected to stabilize around US\$60/b¹⁵ till 2022. Only in 2023 is the global oil demand projected to reach its 2019 level¹⁶.

State revenue collection has been severely affected by an economic recession estimated to be the worst in 40 years¹⁷. Fiscal revenues in Nigeria in 2019 were below 7%¹⁸ of GDP, compared to a world average of around 18%¹⁹. And the fundamentals do not look good, with increased healthcare costs and declining oil revenues in a context characterized by weak cash management systems and sub-optimal utilisation of available technology. While the nation continues

to depend on oil, data from the National Bureau of Statistics indicates that the dependency has reduced substantially. Between 2000 and 2019, the share of oil in total revenue declined from 83.5% to 54% (NBS). Although lower, the continued dependency on oil for revenue and foreign exchange earnings makes the country vulnerable.

When government is unable to obtain enough revenue for its obligations, it must come from borrowing and that is exactly what Nigeria has been doing in recent years. In recent period, debt service payments are more than half of the annual Federal Government revenues, on average, sometimes significantly more than that. In 2020, for instance, the debt service to revenue ratio reached 83% due to the falling oil prices²⁰. Nigeria is facing international trade deficits, explained in part by the dominant share of oil in Nigeria's exports and the downturn in revenues from oil. In 2020, Nigeria's current account deficit reached 3.7% of the country's GDP.21 Meanwhile, Nigeria's exchange rate has depreciated significantly in recent years: the official rate of the Naira to the US dollar in 2020 was NGN381 compared to NGN196.5 in 201522. The depreciation is however much higher in the parallel market, which fluctuates.

Unemployment is growing in Nigeria because the population is growing faster than the economy can create jobs. Unemployment and underemployment have an important impact on the poverty rate which stood at over 40.1% in 2019, as registered in the National Bureau of Statistics (NBS) "2019 Poverty and Inequality in Nigeria" report²³. According to the NBS report, 82.9 million Nigerians live

Nigeria Today





Top photo Food Security, Kano, photo by UNDP / Bottom photo Danfo in Lagos, photo by Ayoola Salako on Unsplash

below the extreme poverty line, while the Global Multidimensional Poverty Index highlights that almost 96 million Nigerians were classified as multidimensionally poor in 2020. It should be noted that the NBS data shows that poverty is more concentrated in rural areas (2.8 times higher than in the cities) and in the country's North East and North West regions. The World Bank estimates close to 5 million additional people will fall below the poverty line due to the pandemic²⁴. With disruptions to production and supply chains throughout the economy due to the pandemic, 80% of Nigeria's households reported income losses, leading to increasing levels of poverty and hunger²⁵.

The manufacturing sector contributed around 12.82% to the economy in 2020 and is amongst the largest in Africa²⁶. As we move towards implementation of AfCTFA there is an opportunity to leverage market demand for Nigerian products. For example, the pandemic has underscored the need to further expand pharmaceutical capacities with a burgeoning market domestically and in the sub-region. Bangladesh, for example, is able to produce 97% of the national demand27 for medicines whereas Nigeria is still importing almost all its medicines. Challenges for the sector include inadequate power supply, the multiplicity of taxes, poor infrastructure and supply variability of rain dependent agricultural inputs. Strengths include cheap labour, high domestic demand and the fact that many of the raw materials are locally available and cheaper domestically. Improvements have included cutting down the time it takes to register a business, new grid connections for electricity, upgrading systems for imports and exports and providing tax holidays for companies producing for export. The federal government has also introduced incentives for those that can source their raw products locally and those with multiplier effects such as machine tools. On the manufacturing sector, the National Bureau of Statistics published a report in 2014 identifying opportunities and challenges²⁸.

Agriculture constitutes Nigeria's largest non-oil revenue, contributing 24.45% of GDP in 2020²⁹ and employing about 70% of the entire country's labour force³⁰. Agriculture generates around N37 billion across four sectors — crop production, livestock, forestry and fishing with crop production the major driver of the sector and accounting

for over 89% of growth in the sector in 2020³¹. More than 80% of farmers in Nigeria are smallholder farmers³² who face numerous challenges including low productivity due to lack of adoption of improved farming methods, inputs and access to credit. These challenges are compounded by the COVID-19 pandemic due to restrictions on move-

Agriculture is also a major source of employment for women, accounting for 75% of the farming population as well as across value chains as distributers, in processing and logistics.

ment, market closures and lockdowns with devastating effects on access to inputs and farm labour. In the rainy season, disruptions to supply of seeds, fertilizer and other inputs due in large part to inadequate infrastructure could lead to further decline in domestic production, escalating an already precarious food security situation. A 2019 McKinsey study³³ found that the sector could be two to three times more productive, adding 20% more cereal and grain with similar increases seen in horticulture and livestock if efforts are refocused on skills development, better fertilizer use, and strengthening the elements of the agricultural value chain, including processing, setting quality standards, packaging, marketing and management.

CONFLICT IS A CONSTANT FACTOR

Poverty and inequality are among the root causes of conflict and the economic decline related to COVID-19 and other factors have fostered crime³⁴, increased intercommunal conflicts including violent extremism and human rights violations. Nigeria has witnessed an overall increase in crime especially in urban contexts since the beginning of the pandemic.³⁵ In the North West, banditry has surged again after the violence was partly mitigated in 2019. In the South, a high level of impunity for serious

Nigeria Today

human rights violations and extortion by law enforcement and security agencies by means of illegal checkpoints continue to be a flashpoint of concern^{36,37,38}. This substantially undermines the legitimacy of the state. Instability strains the country's resources, with one survey estimating that farmer-herder violence costs Nigeria \$13bn a year.³⁹ In addition, resources were diverted to 'hard' security responses rather than more comprehensive, people-centred, human security interventions.

Exposed inequalities and discrimination in access to resources and perceptions of exclusion of some groups and ethnicities continue to feed into divisive rhetoric, compounded by misinformation, hate speech, further polarizes society, thus undermining response efforts. In the medium-term, it is likely the underlying drivers of conflict, criminality and insecurity will worsen. Reported cases of Gender Based Violence have increased significantly; a threefold increase in the number of calls to domestic and sexual violence hotlines prompted The President of Nigeria to call for tough action⁴⁰ and for governors to declare a state of emergency⁴¹. Meanwhile, the prison system is already strained with capacity at 142%⁴². If the economic situation worsens due to COVID-19, the prison population could increase further as crime and insecurity are aggravated.

Insurgency and banditry have resulted in a huge crisis of internal displacement, especially in the North East region of the country and on a scale not seen since the civil war of 1967 to 1970. As insecurity has persisted and the military forces have seemed incapable of containing, let alone defeating it, a loss of confidence in the ability of the state to protect citizens has continued to spread and, in some quarters, become entrenched. Spontaneous self-help measures have been organised by communities in a bid to self-protect or exact revenge, setting off a dangerous trend of lawlessness and disorder. The widespread sense among citizens of a wholesale and seemingly permanent loss of control by the government has produced many other repercussions that have been clustered under the broad rubric of demands for a sweeping restructuring of governance in the country.

THE INFRASTRUCTURE IS DEFICIENT

Nigeria's infrastructure deficit is significant and has become a binding constraint to growth and socioeconomic development. This challenge has been recognized in national development plans.⁴³ The physical infrastructure deficit will be further compounded as the population continues to grow. The need is general from access to clean water, improved sanitation, electricity, good roads, affordable housing, ports to telecommunications, etc.⁴⁴.

If Nigeria's infrastructure endowment can be raised to the same level as those of the region's middle income countries, annual growth would be boosted by about 4%. 45 The loss of output due to inadequate energy alone is estimated at 2% of GDP while congestion due to poor port and associated transport infrastructure is estimated to have created losses of US\$9.7 billion at Nigeria's maritime logistic hubs in 2018.46 Only 56% of Nigerians have access to energy (36%) in rural areas and 55% in urban areas)47. While existing power plants have the potential to generate 12,522 megawatts (MW) of electricity, in recent news, the Transmission Company of Nigeria announced a transmission peak of 5,615 MW in March 2021⁴⁸, which can be attributed to the decrepit state of the network. Housing, clean water, improved sanitation and others have not kept pace with population growth in Nigeria. 49 The government estimates that the housing sector would need at least \$400 billion investment over the next 25-30 years to resolve this deficit.⁵⁰

GOVERNANCE

If one thing has become clear in recent decades, it is that the major barrier to Nigeria's flourishing is not capital (human or natural), nor ideas and creativity; it is the challenges of governance which range from corruption, weak state capacity to insecurity. Governance is particularly important given how socioeconomic challenges and institutional decay have fed a plethora of political challenges including: a resurgent ethno-regional nationalism fuelled by an intense struggle over increasingly scarce resources amidst perceptions of group and sectional favouritism; frequent and recurrent inter-communal conflicts over

\rightarrow	FACTS AND FIGURES	
	Unemployment is growing in Nigeria as the p grows faster than the economy.	opulation
	Unemployment 2014 (Q4)	6.4%
	Unemployment 2016 (Q4)	14.2%
	Unemployment 2018 (Q3)	21.83%
	Unemployment 2020 (Q4)	33.3%

land and water resources, often pitching pastoralists against farming communities; growing threat of extremism; increased urban and rural insecurity taking multiple dimensions from armed robbery and kidnapping to cattle rustling and piracy; and the abandonment by some politicians of a culture of civil dialogue and its replacement by violence underwritten by bands of unemployed youth.

Compounding these various challenges of governance has been an accelerated institutional decline that has spared no sector. The civil service at the national and state levels are the sites of the most visible evidence of decay. A vicious cycle of poor and uncompetitive salaries, inadequate facilities, poor morale, indiscipline (including absenteeism), and widespread moonlighting have translated into the spread of nepotism, and an embedded culture of corruption which successive efforts at reform have been unable to effectively address. The consequence is that the civil service as a factor of coherence, cohesion, and continuity of the state and public policy has lost its way, alienated from the citizenry who increasingly experience it as an institution of extraction and not the embodiment of excellence and a shared national dream.

Although prime attention has been devoted — rightly — to the problems of the civil service in discussions about the crisis of governance in Nigeria, it is pertinent to note that it is by no means the only public institution that has suffered deep-rooted decline over the years. Within the public sector broadly defined, the policing service, the postal system, the educational system, and public health institutions have exhibited similar problems. Decline has also permeated the local government system and spread beyond public institutions to engulf other non-state institutions whose presence and input once constituted an important part of the fabric of national governance and development, playing key roles in the quest for democracy, secular identity formation, a pan-Nigeria sense of citizenship, and the mobilisation of a shared national vision. Particularly worthy of note is the institutional decline which trade unions, student unions, and many professional associations such as the union of journalists have also experienced. Their decline has contributed to the erosion of the civic space and active citizenship across the country.

Today, Nigeria faces a context in which there has been a near collapse of

- the historic social contract between state and society
- the basis for the enjoyment of citizenship to the fullest and in safety and security
- the most basic of elite consensus for nation- and state-building
- the civic and secular middle ground in politics and public affairs
- institutional integrity and culture across the board
- pro-active and forward-looking national diversity management for the sake of enhancing national unity, inclusion, and belonging
- governmental ability to administer public affairs with efficiency, honesty, and credibility
- trust in the capacity of the government to supply public goods, including security for lives and property
- state monopoly of the instruments of coercion and, therefore, the legitimacy to deploy force;
- fairness and equity in the administration of public affairs and the commonwealth.

The demands for restructuring which started in the 1990s as a fringe campaign have, over the years, entered into the mainstream of national politics. It encompasses calls for (a return to) "true" federalism, the convening of a (sovereign) national conference to (re)negotiate the terms for pursuing a Nigerian nationhood, and the adoption of a new constitution to replace the one handed over to elected politicians in the 1999 transition from military to democratic government. The various calls, which carry different meanings and connotations for different groups, have flourished all over the country, occupying the centre-stage of national politics and setting the pace for public discourses with their competing narratives about the Nigerian project. The critical challenge now is how to forge grand national narratives as a basis for a social compact to rally the nation around a new set of national ideals and values.

Nigeria Today

NATURAL RESOURCES: from curse to blessing

Nigeria has significant natural resource wealth, ranking in the world's top 10 for proven reserves of oil and gas. It remains the main oil exporter in Sub-Saharan Africa and is rich in other natural resources. ⁵¹ But despite Nigeria's inherent wealth in natural resources, the challenges facing the country are enormous. The recent oil market shocks and a global trend towards a zero-carbon world economy by 2050, highlight the country's economic vulnerability. The federal government has recognized the need for change.

Climate change is a catalyst for a disruptive shift towards more sustainable economies worldwide. Nigeria needs to follow suit given the impact on Nigerians already and also the opportunity to build new economic sectors to ensure national development and transformation. Nigerians are directly impacted by climate change, evidenced by more frequent extreme weather events, droughts, and floods, during which critical infrastructure is damaged and people are displaced. Farmers and herders are finding ways of coping with the limited means available to them, leading to increased conflicts. The effects of climate change are becoming more apparent; impacts on crop yields and the rising sea levels could impact coastal cities including Lagos and Port Harcourt.

In recent years, there have been initiatives developed by the Government of Nigeria to drive the green growth of the country by leveraging climate-smart initiatives for a cleaner and more sustainable economy and ecosystems. Central to these initiatives is Nigeria's pledge to reduce its greenhouse gas emissions between 20% and 45% by 2030 under the Paris Climate Agreement.⁵² The Nigeria's Nationally Determined Contribution (NDC) proposes transformational climate change mitigation actions in energy, oil and gas, agriculture, industry, and transport which, taken together, can propel Nigeria into a green economy pathway. The Nigerian green economy has an estimated investment potential of \$250 billion⁵³ in areas such as renewable energy, waste management, smart agriculture, sustainable transport, and water solutions. These shifts would position Nigeria as a major powerhouse in creating green jobs of the future and further strengthen the private sector in sustaining the country's GDP as Africa's largest economy.

HUMAN RESOURCES: Nigeria's great opportunity

In spite of its challenges, Nigeria exemplifies the true promise of diversity and inclusion. It is a country that is awaiting to be unleashed on the world through her people's energies, creativities and brand, telling a narrative of a thousand fabrics and textiles, caps and hats, festivals, culinary delights, unique birds, flora, exceptional drums and exemplary traditions; grand narratives that elevate the stories of her people, past and present, their dreams, sacrifices and efforts, the stories of how their lives and relations can be lived and what the country could mean to the world.

We cannot ignore the nearmiracle of a country of about 374 ethnic nationalities⁵⁴ and about 552 living languages⁵⁵ with over 206 million⁵⁶ people and in less than 70 years of independence being in the top 25 economies in the world⁵⁷.

The incredible fact that about 62%⁵⁸ of its people are literate, from a very low level at independence, should not be treated as of no consequence. The fact that it is the largest economy in Africa⁵⁹, has one of the top-three filmmaking cultures in the world⁶⁰ and is currently one of the most influential music cultures⁶¹ are just seen as footnotes. Nigeria has no single hegemonic ethnic group controlling its politics, economy or culture, a global rarity.

The enormous **human capital** that exists in Nigeria is perhaps Nigeria's greatest opportunity.

In spite of its challenges, Nigeria exemplifies the true promise of diversity and inclusion. It is a country that is awaiting to be unleashed on the world through her people's energy & creativity.



Photo by Thelma Dike on Unsplash

Nigeria Today

The importance of investing in human capital is a lesson from Japan, Singapore and Korea's development with government working with companies to repurpose human capital in the private sector as well as ensuring that youth and gender friendly policies cut across both social and governance reforms so they are recognised as active agents for change. The diversity of Nigeria has long been considered a source of conflict, but it is also a great strength, bringing myriad talents together. Nigeria's many cultures could become its selling point. Nigeria enjoys a vibrant media and civil society which could play an important role in ensuring transparency and accountability.

Education is the key to leveraging Nigeria's human capital but currently over 10.5 million children, according to UNICEF, are out of school⁶². Over two thirds of women in the North West and North East have no education at all⁶³. If education is to make a leap forward, it will need to do so with the most marginalized children in mind and acquire a breadth of skills. It is not just literacy and numeracy but also problem solving, communication and flexibility with a focus not just on access but also on improving quality. There are a number of good examples to draw on in the region and to that end a number of countries have increased their share of government expenditure spent on education.

Nigerian **culture** is now a dominant force providing revenue and contributing to the country's growing influence across the continent and globally. The country's entertainment and media industry is projected to become the fastest growing entertainment and media (E&M) market with revenue expected to increase from US\$4.5 billion in 2018 to US\$10.8 billion in 2023⁶⁴. Nollywood now generates over \$1 billion a year⁶⁵, displacing Hollywood and Bollywood as the most important movie industry on the continent, and is enjoying increased visibility across Europe, the Americas and the Caribbean.

The film industry has become a major employer, employing approximately one million people⁶⁶. With an estimated 50 films produced per week⁶⁷, it has recently been identified as Nigeria's next "mineral resource" because of its huge economic prospects in a digital economy. Music is also now big business, growing in sales and global influence.⁶⁸ It is said that the country's entertainment and media in-

dustry had an estimated total revenue of \$4.8 billion in 2015 and was likely to grow to some \$8.1 billion in 2019, making it "the fastest-expanding major market globally" 69 . The Nigerian Fashion industry is reputed to be worth over \$4.7 billion 70 . Fuelled by an increase in demand for Nigerian fashion globally, the sector has experienced an average growth rate of 17% since 2010^{71} . Moreover, it is also a good example of how investment in promoting value chains can reap dividends with many of the inputs (textiles, leather etc.) being sourced domestically. Cultural goods have become the economic drivers in today's digital age and the oil that will lubricate the knowledge-based economy.

Much of this success has been done without government support that could be provided to assist. For example, issues relating to copyright and piracy are a serious problem. The World Bank estimates that for every legitimate copy of a movie sold, nine others are pirated with almost all exports pirate copies⁷². This is mainly due to there being few legal channels for exporting movies, with few or no returns going to film makers or the government in tax revenue. There are also other potential issues that could be addressed including tax reforms to provide incentives and tailor tax policies to the film industry, public private partnership to boost capacities including through establishment/upscaling of training centres and mentorship schemes and through legal reforms to protect intellectual property rights. There are also good practices to draw on. For example, the Indian Government supported Bollywood through a combination of (1) foreign investment, promoting Indian cinema globally and signing film treaties, (2) supporting training of 1.2 million skilled workers in the sector, (3) crackdowns on piracy, and (4) investments in digitisation (which reduces piracy) all of which led to rapid expansion of the sector.73

REGIONAL LEADERSHIP

Nigeria is the biggest country in Africa in terms of population and the economy (GDP); about 16% of Africans are Nigerian. In the West Africa region, Nigeria is home to 55% of the population and about two-thirds of the economy 74,75,76 . Moreover, Nigeria has significant military power that has had some success in bringing stability to the region.

Nigeria is the biggest country in Africa in terms of population and the economy (GDP); about 16% of Africans are Nigerian.

Traditionally, Nigeria has exerted important leadership in Africa. Nigeria gathered countries in West Africa to build the ECOWAS and invested vast resources in the prevention and resolution of devastating conflicts in the continent. Nigeria's first external affairs minister, Jaja Wachuku, asserted in 1960 that: "Our country [Nigeria] is the largest single-unit in Africa... we are not going to abdicate the position in which God Almighty has placed us... The whole black continent is looking up to this country to liberate it from thraldom."

The position has also been supported by action. In justifying the Nigerian-led ECOMOG forces to restore stability in Liberia (which was opposed by some members of ECOWAS e.g. Côte d'Ivoire), the then president Ibrahim Babangida stated that: "[In] a sub-region of 16 countries where one out of three West Africans is a Nigerian, it is imperative that any regime in this country should relentlessly strive towards the prevention or avoidance of the deterioration of any crisis which threatens to jeopardize or compromise the stability, prosperity and security of the sub-region."⁷⁸

Nigeria has demonstrated leadership from its engagement in setting up continental institutions such as AU, AfDB (including the setup of Nigeria Trust Fund), to its critical role in the liberation of the African continent from colonial governments, to sending experts like judges, military personnel, teachers and skilled people to help newly

independent African countries. In the late 1980s, Nigeria led the formation of ECOMOG to keep peace in Liberia, Sierra Leone and Guinea Bissau. It went on to invest millions in Liberia and Sierra Leone.

Nigeria has the desire and the might to lead Africa. However, this passion has not always been reflected in influence that can be leveraged for political and economic development. A study by the Institute of Security Studies (ISS) argues that only Nigeria has the potential to be a hegemonic leader in Africa with global significance. However, they say that such a development would require a complete change in its current domestic stability, governance capacity and political leadership. Unlocking the potential for Nigeria building and projecting its power to drive Africa's transformation is crucial. What will it take for Nigeria to become that locomotive?

The effect a fully implemented African Continental Free Trade Area (AfCFTA) will have on the Nigerian economy cannot be overstated, removing barriers to intercontinental trade and investment. The African Union has estimated that, if successfully implemented, AfCFTA could generate a combined consumer and business spending of US\$6.7 trillion by 2030⁸¹. At the moment, oil and distillation products constitute the vast majority of Nigeria's total exports (around 94% in 2018)⁸². AfCFTA presents a good opportunity to diversify and boost non-oil exports and services while leveraging its oil exports.

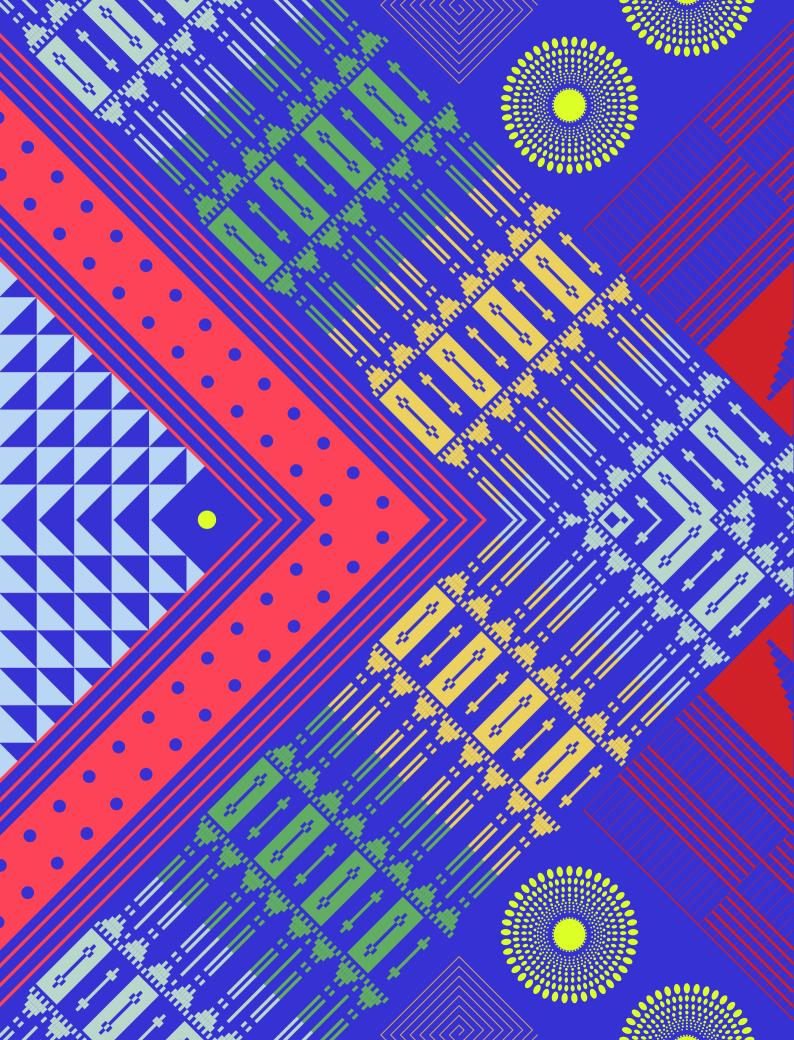
Conclusion

This panoramic of Nigeria shows that while there are many opportunities which could be the basis for Nigeria's definitive take off, there are also many daunting challenges. The future of Nigeria will be determined by the collective actions and inactions of Nigerians with respect to the opportunities, the challenges as well as the emerging global developments. The next section of the report examines the major global trends and alternative scenarios on the future of Nigeria.



Photo by Tolani Alli, SA Photography





Part Two.

Futures: The Possibilities

03 Global Trends

Change and uncertainty are, today, the only constants. Looking to the future, the pace of change is expected to rise exponentially and to generate more uncertainties.

As the global and regional context becomes more complex, the challenge for Nigeria is how to ride the wave of opportunity, while mitigating threats to progress. Changes already underway will impact the major industrial countries as well as the developing world, Africa included. We define three major buckets of change: politics/economics, technology and environment.

Politics & economics • New economic powers • Marketplace globalization • Rising energy demand • Inequalities • Agriculture 4.0	Citizenship Hyperconnectivity Individualization Citizens' movements (local/global) Knowledge culture Gender shift Transparency Populism	Demographics Rapid urbanization Mobility Migration Returning diaspora Silver society Security	
Environment Climate crisis Resources scarcity Nature-based solutions Green economy	Technology Technology shift and exponential advancement Digital transformation 4th industrial revolution Biotech. Artificial intelligence New work Clean tech	Development Enablers Investment in human capital Governance (public sector and business) Empowerment of women Entrepreneurial youth Clean tech	

POLITICS & ECONOMICS

We live in a multipolar world with the rise of new economic and military powers. As the world continues its path to further integration and globalisation, many countries are also seeking more control over their borders. Brexit and the rise of various "my country first" ideologies (in the US most notably, and also across Europe) are the manifestations of anti-globalisation and anti-immigrant movements. They are growing and driven in part by rising economic inequality and anxiety. Nigeria has not been immune to the demand for change. The recent #ENDSARS demonstrations in many parts of the country is an indication of the increasing demand by the populace for change. But while some advanced economies are moving backwards on globalisation and global trade, Africa signed its free trade agreement in 2018, bringing 1.3 billion Africans into one market. The AfCFTA is poised to drive inter-African trade and provide opportunities for socio-economic development.

Despite the rhetoric, global trade continues to rise even with the negative impact of the COVID-19 pandemic.83,84 The rising interconnectedness of global economies, particularly when it comes to trade in technology and services, is related to increasing digitisation: data is the new commodity. As a consequence, the technology sector (particularly US firms) dominates the world. The power of these firms has risen significantly with the rise of platform economics where firms like Google, Facebook, Amazon, Uber, and AirBnB control large swaths of global activities. Chinese firms are competing in the hardware space while also building their own platform economies. In fact, Chinese firms now have the dominant position in critical areas such as 5G and have made tremendous inroads in the developing world where they are the leader in the mobile market, supplying affordable smart phones and building infrastructure. The Chinese government has made significant bets by providing loans to developing countries as part of its national strategy for influence. Europe is far behind the USA and China, but it has taken decisive actions in regulating global technological monopolies.

Global Trends

These developments point to a reversal of the idea that the state has only a minor role in the economy. While this is not the end of neo-liberal capitalism, there is a renewed emphasis on the role of the state in the economy, which means there is room for the state to engage more in the economy. Countries like Nigeria could seize the opportunity to build a developmental state focused on structural change and socioeconomic transformation. This requires an effective and efficient government able to serve as a catalyst for economic development, regulate the markets while promoting the private sector.

A critical development over the years is the rising demand for freedom, human rights and democratic governance. This is the story of the 20th century with more and more countries moving towards giving citizens the ultimate say in selecting their governments and leaders. This trend is likely to continue with more efforts in promoting citizen's rights. Women's equality remains a critical challenge; while the acceptance and codification of women's rights in law have spread around the world, customs and practices remain persistent hindrances.

The emergence of hyper connectivity — the spread of internet and social media — is providing new ways of organising and engaging for people around the world to build citizens' movements. Typical demands include increasing accountability of governments, transparency and addressing social ills. While citizens' movements are on the rise to address perceived social ills, there is also increasing individualisation.

Demography: crisis or blessing

The future demography of Nigeria is fairly predictable. Global changes in demographics mean one in four of the world's labour force will be African by 2050. Meanwhile, an increasing absolute number of elderly populations as life expectancy increases has implications for pension and social protection systems.

The reality today is Nigeria's population is growing rapidly and by the year 2050, if the current growth rates remain

the same, its population will have more than doubled⁸⁵. At 400 million, Nigeria is expected to be the third most populous country in the world. The nation will continue to be youthful; over 40% of the Nigerian population is already under 15⁸⁶. Interestingly, however, Nigeria is also expected to witness a growth of older people, as life expectancy continues to improve. The African continent is expected to mimic the developments in Nigeria, with a fast growing population heavily dominated by the youth. In the developed world however, population growth is expected to be in decline, with most seeing a population that is ageing.

Urbanisation in Nigeria, which has been growing on average by over 4% per annum⁸⁷, is changing patterns of living and helping to increase the middle class; Nigeria is now an increasingly important destination for consumer goods and services in their own right. Rapid urbanisation is expected to lead to more megacities, but the lopsided growth of cities without the necessary social and economic infrastructure will be problematic.

Combined with automation, a critical challenge is the issue of employment for the growing youthful population in urban centres. Increased mobility is expected with people moving from rural areas to urban centres in search of elusive opportunities and others seeking ways to emigrate. In the meantime, the emerging hostility to immigrants in the West is unlikely to ease as the social and economic challenges facing these countries are likely to deepen. The resulting realities in the West might even lead to the return of some Nigerian diaspora.

These developments have implications for crime and security. Unless the economy is able to grow rapidly and to create jobs for the growing youthful population, the demographic boom might simply become a bust. On the other hand, with appropriate human capital development and economic policies, demographic growth could be harnessed for socioeconomic transformation. The youthful population, if properly trained, could give Nigeria an edge and ensure that the economy has the skilled workers of the future. This will only come through purposeful strategy and actions. Maximising the potential of women and girls will reap exponential positive social and economic

effects, including in the workplace to ensure training and educational opportunities; closing gaps on salaries, employment, promotions as well as politically and socially.⁸⁸

TECHNOLOGY

Since early 2020, our lives have been deeply altered due to the COVID-19 pandemic, imposing limitations on our work environments and educational systems. Those with access to technology — whether countries, communities or individuals — have been able to better adapt, with tele-working, webinars, and distance education becoming the new normal. COVID-19 has not just changed the way people live, it has also demonstrated the importance of investments in the digital economy and has opened space for countries to really take that as an opportunity to leapfrog. Crises bring opportunities and opportunities demand change.

Many of the major shifts in the world today are driven by science and technological innovations. Some countries are now entering the fourth industrial revolution. The so-called "Internet of Things" is becoming a reality. Many ideas which were only in the realm of science fiction a few years back are becoming the norm — from robotics and automation to 3D printing of buildings to artificial intelligence composing music and writing stories. The technological foundations driving these innovations include the internet, social media, mobile cloud services, and big data analytics; key accelerators have included the ever-increasing computing power of semiconductor chips, nanotechnology, cognitive systems, and blockchain. All this technology means our future will be so radically different from today as to be almost unimaginable, with experts talking about things such as radical life extension, human machine convergence, and empowerment economy.

One immediate effect is the technology cold war that has emerged between the United States and China. It is a new cold war driven by the desire by China and the United States to each achieve supremacy in the industries-of-the-future with consequences for economic and global dominance. While the United States had the upper hand for a long time now, it is being challenged on multiple fronts by China. In some critical areas such as 5G,

China is ahead. While the United States is rallying its allies and using its diplomatic pressure to diminish China's lead, China, on the other hand, is making massive investments in critical sectors while using its economic diplomacy to promote the adoption of its technologies in the developing world. The techno-nationalism raging in the world will have significant repercussions. The challenge for countries like Nigeria is not to be caught in the middle while also investing to build their own technological capabilities.

Another major consequence of the various innovations taking place is that a green economy becomes more likely, with significant implications for oil economies such as Nigeria; a combination of technological innovations in renewable energy, changing attitudes, as well as decisions by countries, businesses and consumers on the need to protect the environment will reduce significantly the share of oil in the energy mix. While Nigeria, like others in the developing world, will need time for transition, there are no guarantees given the pace at which national policies, corporate decisions and consumer habits are changing (Box 1).

This is likely to accelerate the global energy transition which is already underway. The maturing of existing renewable energy technologies such as solar and wind plus the development of new forms of energy will likely lead to partial but substantial replacement of fossil fuels in energy generation. The newer and cleaner energy sources could provide the jobs of the future and help transform economies. In addition, the increasing digitisation and the harnessing of data portends a future in which digital infrastructure is key to development. Data is and will continue to grow as the new source of competitiveness and power. While Nigeria is beginning to make some inroads in technology, it is not a global leader in any field, nor has it been able to build the necessary innovation ecosystem.

Global Trends

1 ► The Peak of Oil?

In September of 2020, the British oil giant BP Plc published a report stating that the demand for oil will fall over the next 30 years⁸⁹. For BP, in a business-as-usual scenario, oil demand would peak around 2025, while it has already peaked in a net-zero alternative. As forecasts for peak of oil go, OPEC's is more conservative than those of BP, affirming that oil demand will plateau in 2040⁹⁰. When the peak of oil will actually come is yet an uncertainty, but analysts agree that COVID-19 has hastened trends and a turning point for the oil industry is already upon us⁹¹.

The rise of the electric vehicle

While during the pandemic car sales fell heavily, electric vehicles sales passed the test and managed to thrive during the economic crisis⁹². As battery technology gets better and cheaper, bringing the cost of electric cars in line with internal combustion vehicles⁹³, many car manufacturers have pledged to shift some of their production to electric cars:

Vehicle Manufacturers ▶ Pledge

Volvo; Bentley Only electric cars by 2030 Ford Only electric cars in Europe by 2030 Tata Motors Jaguar brand will be entirely electric by 2025 General Motors Fully electric automaker by 2035 **BMW** 50% zero emission vehicles by 2030 Over 70% of its European sales Volkswagen and 50% of its US and China markets will be of electric vehicles by 2030 Fiat Chrysler Fully electric or hybrid for its and PSA Groupe Stellantis line by 2025 in Europe

It is not only car manufacturers, 16 countries have taken varying types of action to encourage the phasing out of vehicles with internal combustion engines (ICE) in favour of electric vehicles (EV)⁹⁸:

Countries ▶ Pledge

Sources: multiple 94, 95, 96, 97

Austria
No ne
South Korea
EVs ac
Norway
Will or
Germany
Only c
2030

India

- ▶ No new ICE vehicles sold after 2020
- South Korea $\,\blacktriangleright\,\,$ EVs account for 30% of auto sales by 2020
 - ▶ Will only allow sale of EVs by 2025
 - Only allow registration of ICE vehicles by 2030
- lceland No ICE vehicles registered after 2030
 - No new ICE vehicles sold after 2030
- Ireland ► No new ICE vehicles sold after 2030

 Israel ► No new ICE vehicle imports after 2030
 - No flew ICL verilicle imports differ 2050
- Japan ► Incentive program to promote EV sale
 Netherlands ► No new ICE vehicles sold after 2030
- Sweden Phase out ICE vehicles after 2030
- Slovenia Ban the registration of ICE vehicles

Scotland ► No new ICE vehicles sold after 2032

Sri Lanka

 Replace all state-owned vehicles with electric or hybrid models by 2025, a move that will be extended to private vehicles by 2040

Britain Costa Rica Taiwan

- ▶ No new ICE vehicles sold after 2035
- 0% of buses and 25% of cars electric by 2035
 Phase out fossil fuel powered materix vales

 Phase out fossil fuel-powered motorcycles by 2035 and fossil fuel-powered vehicles by 2040

Denmark Egypt France Portugal

- ▶ No new ICE vehicles sold after 2040
- ▶ No new ICE vehicles sold after 2040
- ► No new ICE vehicles sold after 2040
- Official target and incentive in place for EV sales

In addition, 35 cities 99 , including Paris, Los Angeles and Cape Town, have signed the 'Fossil Fuel Free Streets Declaration', pledging to procuring only zero-emission buses from 2025 and ensuring that a major area of the cities will be zero emission by 2030 100 .

Focusing recovery on the green economy

At the same time, the IMF¹⁰¹, the United Nations¹⁰², the United States¹⁰³, the European Union¹⁰⁴ and African leaders¹⁰⁵ have called for a green economic recovery. The US, with Biden's Climate Policy¹⁰⁶, and the EU, with the 'European Green Deal'¹⁰⁷, are focusing their development strategies to address climate change commitments through the lens of the green economy.

Net-zero pledges already encompass three quarters of the global economy

In the fight against climate change, 121 countries, 2,357 companies, 700 cities, 163 investors and 624 organisations have joined the Climate Ambition Alliance in committing to achieve net-zero CO_2 emissions by 2050^{108} . If we consider that China announced it will reach carbon neutrality by 2060^{109} , that South Korea has officially committed to be net-zero by 2050^{110} , and that the United States rejoined the Paris Agreement earlier this year¹¹¹, then the equivalent of over three quarters of the global economy has committed to reach carbon neutrality in the next decades.

Within the private sector, many companies from various sectors, regions and sizes have already pledged to be net-zero by 2050. It should be noted that 'The Climate Pledge', a commitment to reach the Paris Agreement 10 years early co-founded by Amazon and Global Optimism, already has 106 private sector signatories.

вох

Digital divide or digital transformation

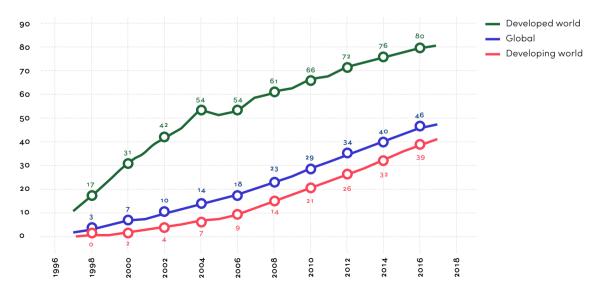
Rapid technological developments, particularly in digital technologies, present emerging markets like Nigeria with unprecedented opportunities for economic transformation and innovation¹¹². Even the currently unfolding geopolitical rivalry between China and the US, presents important innovation opportunities for Nigeria and other African countries¹¹³. Nigeria's digital technology sector has great potential for economic growth and development, as shown by the recent acquisition of the five-year-old Nigerian fintech start-up, Paystack, by Stripe, the Silicon Valley based fintech giant, for over US\$200 million¹¹⁴. Flutterwave, the Nigerian digital payment services company reached a valuation of over a billion US dollars in March 2021 following its successful fundraising round¹¹⁵.

The digital economy is the application of digital technologies to the production and delivery of products and services. This helps create new industries and fosters productivity in existing ones, while at the same time transforming the way people interact, consume, socialize,

communicate, create, and internalize information. Graph 1, below, shows how the global digital divide persists with internet usage in richer countries far more common, leading to negative consequences for poorer countries including: social exclusion, limited access to knowledge, difficulty in sharing information, and decreasing opportunities to those in the lower level of the social pyramid.

Investments in the digital economy boost efficiency in most economic sectors, minimize geographical barriers, generate new opportunities for wealth generation, improve education, address gender issues, diversify the economy, and improve countries' integration in the global supply chain. A well-integrated country creates more opportunities for its private sector, including small and medium companies, to trade internationally. It also allows more foreign investments, boosting the economy and public revenue generation. Governments with more money can invest more in social and economic development. Stronger private sectors can invest their money in innovation, reinforcing the positive cycle.

GRAPH 1 ► Internet Users per 100 Inhabitants



Source: Lumen Learning¹¹⁶.

Global Trends

Among the biggest challenges for countries seeking to boost their digital economy are the need for investments, the preservation of intellectual property rights, a trustworthy institutional arrangement, demand for adaptability of companies, development of human capital, a predictable infrastructure sector (energy, internet, transport, logistics, etc.), revision of investment rules and limitations, demand for digital services, digitalisation of traditional firms, update of regulations in data security, privacy, consumer protection, and cultural values.

With the world rushing to a digital era, the role of technology in economic and social development will grow and digital transformation will create new forms of digital divides between and within countries. It highlights the importance of education and constant re-skilling. Negative social and economic impacts could endanger stability and put at risk economic development for those left behind. However, digital transformation can help rebuild and redefine globalisation, offering countries that have been excluded from the global markets an opportunity to better trade products and services and to develop their economies and social systems.

Data could be to the 21st century, what oil was for in the 20th. In such a world, only those that are able to make the necessary investment in infrastructure (digital, transport, energy) and skills upgrading for their citizens are likely to win. In this digitized world, there is a potential for the splintering of the internet, with a bifurcation or multiplication of "internets". Also expected are the continued rise in automation, robotics and artificial intelligence, which will drive both social and economic activities. The potential of these developments to drive and transform firms, business models and the demand for skills and capabilities is likely to be quite huge. Having the digital infrastructure, skills and the capabilities to develop services will be crucial for national competitiveness.

ENVIRONMENT

The major challenge facing humanity today is the climate crisis. The inertia and inability of the world to move swiftly since the early 1960s when environmentalists began to

raise alarms have meant that no matter what is done now, the world will continue to suffer the effects of climate change. Even with the rapid policy response going forward, which is not guaranteed, temperatures will continue to rise with consequences for (among other things) sea levels, coral reefs, glaciers and ice sheets. Sadly, the developing world, especially Africa and small island states, which have done the least damage to the environment, will suffer the worst consequences.

The global climate crisis is already impacting Nigeria. Without a dramatic change in the emission of CO_a soon, parts of low-lying cities like Lagos may go under water. Ensuring dramatic shifts or drastically bending the curve on emissions over the next decade will be a formidable effort given where the world is today. While the West is worried about economic impacts, the developing world simply do not want to pay the price for the past transgressions of the advanced developed economies. Examples of the emerging negative impacts of environmental degradation and climate change in Nigeria abound. Lake Chad which provides livelihoods for millions is drying and may not be there by 2050. It is creating significant challenges for the poor, with its impact on agriculture noteworthy, increasing food insecurity as well as inequality. The crisis of the herders which has plagued Nigeria in recent times is largely due to fights over resources as climate change drives cattle herders further south. The increasing number of undocumented immigrants risking everything to travel via the Sahara and the open seas with nothing more than dingy boats, is partly due to the desire for better livelihoods away from climate ravaged areas.

While the world's policymakers may be moving slowly, technology and public opinion are advancing at a rapid pace. Today, the prices of renewables are beginning to rival fossil fuels¹¹⁷. Solar power and wind energy technologies are maturing while many new streams of energy technologies are under development. Public opinion is changing, especially among the younger generation. Habits are also changing as early adopters seek ways to reduce their energy footprint. Firms are taking the lead along with some governments around the world. We have also witnessed the emergence of automakers that only make

Many new ideas utilize nature-based solutions.

Although the impact of these may not be felt on the environment soon, a drastic shift in fossil fuel consumption will have significant impact on Nigeria's economy.

electric cars, while a few traditional automobile makers are announcing that by 2030 half of their cars will be electric tric. backed by research that estimates that the cost of manufacturing an electric car is to drop to the same level as internal combustion engine cars by 2024.

Many new ideas utilize nature-based solutions. Although the impact of these may not be felt on the environment soon, a drastic shift in fossil fuel consumption will have significant impact on Nigeria's economy.

The COVID-19 crisis has given the world the opportunity to rethink the way governments and economies work. The new approaches that could emerge may foster inclusiveness while enhancing societies' resilience and efficiency. Although the pledge of developed nations to provide US\$100 billion/year by 2020 to combat climate change was not met, a series of international organisations and countries worldwide have been pushing for a green COV-ID-19 recovery. ^{120, 121, 122, 123, 124, 125}

Going green

The United Nations Environmental Program (UNEP) defines an inclusive green economy as one that improves human well-being and builds social equity while reducing environmental risks and scarcities¹²⁶. A green economy not only increases resource efficiency (capital, labour, materials, energy, and natural resources) and reduces greenhouse gases emissions, but also improves social equity and human well-being. Consequently, green growth can be defined as a "constant increase in the proportion of intangibles in GDP and in lifestyles by multiplying the productivity of resources and improving the quality of life of the great majorities"¹²⁷.

After the 2007–2008 financial crisis, numerous countries implemented green economy stimulus packages to reinvigorate production and consumption. Investing in bolder policies for a green economic recovery was also promoted in 2020 as an effective strategy to building resilient economies in the Post-COVID-19 era. In this regard, the International Monetary Fund (IMF) called for fiscal policymakers to "green" their response to the pandemic-driven

crisis¹²⁸ and the European Union (EU) created a recovery plan aimed at building a "greener, more digital and more resilient Europe"¹²⁹. In Africa, a recovery plan backed by 54 African leaders recommended "focusing stimulus investment on resilient infrastructure and food security to overcome the COVID-19 climate crisis"¹³⁰, while the continent's environment ministers pledged support for green COVID-19 recovery in their annual meeting, held virtually in December 2020¹¹¹¹. Also in 2020, the AfDB set up a \$50 million blended finance initiative to establish the COVID-19 Off-Grid Recovery Platform focused on decentralized renewable energy solutions¹³², whereas the European Investment Bank (EIB) and the African Export-Import Bank (Afreximbank) directed 25% of their €300 million COVID-19 recovery package to green projects¹³³.

The AfDB has been seriously investing in green growth initiatives for almost a decade¹³⁴. Several African governments have developed, or are developing, green economy strategies and action plans¹³⁵. More recently, the European Union launched its "European Green Deal" 136 in December of 2019, aiming at being the first climate-neutral continent in the world. By January 2020, BlackRock, which manages assets worth over 17 times Nigeria's GDP¹³⁷, announced initiatives to place sustainability at the centre of their investment approach¹³⁸ and joined the governments of France and Germany to establish the Climate Finance Partnership, which plans to invest between \$500 million and \$1 billion in climate change mitigation projects in emerging countries¹³⁹. Coupled with these are increasing reluctance to finance fossil fuel projects (Box 2 on next page).

Also in June 2020, the World Economic Forum launched "The Great Reset" initiative, calling for "entirely new foundations for our economic and social systems"¹⁴⁰. Similarly, the World Business Council for Sustainable Development (WBCSD), which hosts almost 200 companies around the globe, launched in November 2020 an issue brief advocating for a new capitalism to "ensure that the power of private enterprise and competitive markets is better directed towards enabling 9+ billion people to live within planetary boundaries"¹⁴¹. 121 countries and over 1000 businesses have already joined the United Nations Framework Convention on Climate Change's (UNFCCC)

Global Trends

"Climate Ambition Alliance", pledging to reach net zero greenhouse gases (GHG) emission by 2050, while the world's biggest GHG emitter, China, announced in September 2020 that the country will reach carbon neutrality by 2060. More recently, Denmark became the first oil-producing country to announce that it will phase out oil and gas exploration in the North Sea by 2050¹⁴².

Consequently, as an alternative to the current economic model, the green economy seems to be a relentless global trend, not only in government policies, but also in business and social behaviour.

2 ▶ Is this the end of financing for Fossil Fuel Projects?

We are at a turning point. On the one hand, consumers are more climate aware and making consumption decisions that are pro-green. Manufacturers are pledging to reduce or end the production of automobiles and vehicles consuming fossil fuels. Cities and countries are making pledges to ban or reduce the number of fossil fuel automobiles while more and more countries are pledging to meet the global climate accord.

Further accelerating the trend is the emerging pledge by financial institutions which may lead to drastic reductions in funding for fossil fuel projects. Financial firms are increasingly engaging in global initiatives on climate change, with many of the biggest stakeholders making commitments that recognize the risks of climate change to private sector operations and are responding to both public and shareholders' pressure, pledging to make their operations (and investments) net-zero by 2050¹⁴³. Forty-three major financial institutions, holding US\$28.5 trillion in assets, are part of the UN sponsored Net-Zero Banking Alliance which seeks to align lending and investment portfolios with net-zero emissions by 2050. They represent some of the biggest financial institutions in global finance both in the West and in the emerging markets.

In a more ambitious initiative, the recently created Glasgow Financial Alliance for Net Zero (GFANZ) brings together existing and new net zero finance initiatives into one sector-wide strategic forum that gathers 160 firms, between banks and asset owners/managers, valued at \$70 trillion. 144 The GFANZ is supposed to be the platform for mobilizing the trillions of dollars necessary to build a global zero emissions economy. In the reporting aspect of these commitments, the Partnership for Carbon Accounting Financials (PCAF) joins 100 financial

institutions, holding over US\$38 trillion in total assets, in an effort to develop and implement a harmonized approach to assess and disclose GHG emissions associated with their loans and investments. ¹⁴⁵ In this regard, the US Securities and Exchange Commission is currently discussing new standards for the disclosure of climate change related information for public companies operating in the country, in an effort to update and improve a 2010 guidance.

What does it all mean? It means that, although the biggest players in the financial sector cannot easily divest from all sectors with high carbon emissions, they are committed to transitioning investments to net-zero GHG emissions during the next two decades. This will have huge impact in the global economy. This will influence carbon intensive sectors by incentivizing the rapid transition to a low carbon future. The implications will be significant for countries hoping to continue to invest and exploit their fossil fuel assets.

The rising number of networks (14 alliances to-date¹⁴⁶), corporate commitments and changing consumer preferences towards a net-zero economy are setting a speedier pace for movement towards green economy while hastening the possible demise of fossil fuel.

вох

WHAT DOES THE FUTURE HOLD?

The future will likely be driven by the interplay of the three critical areas identified above, along with other trends and unexpected events. These emerging realities lead to several serious questions. Will we build futures of resilience and progress that carry everyone along? Will the world continue to build on the existing global order to improve collaboration and enhanced partnerships for win-win outcomes or will the rise of "me first" win, with increasing movements of isolationism, xenophobia and nationalism? Will technological advancement be democratized and put at the service of human race or will it simply be captured by global monopolies and a few countries? Will we enable cooperation in our collective struggle against climate change and exploitation? Who will own the emerging global data mines and digital infrastructure? Will most countries be able to participate in the fourth industrial revolution or will it be for a few, further exacerbating global inequalities?

Examining these realities leads us to three critical uncertainties: the nature of global cooperation, the democratisation of the emerging technologies, especially in the digital economy space, and the continuing risk of environmental disaster (while environmental disruption is a certainty, all out disaster is not).

In an increasingly multipolar world, will major powers (led by the US and China) use their resources to build "client states"? Might citizens' movements emerge to drive change, pushing the idea of global citizenship? Could global crises (from a global pandemic to environmental disaster) fuel the spirit of interconnectedness required to address global challenges? Will the traditional African philosophy of Ubuntu at least partially defeat the "me first" ideology?

When it comes to technology, will control be in the hands only of those with the resources, or will we find a way to distribute progress more fairly? In a "techno-cold war", will countries have to select which major power they are aligned with? We know that big data, artificial intelligence and automation will become increasingly more important, but will private control dominate the public good, or vice versa? Will we see a reversion to colonial-era domination by foreign enterprises, or will populous regions leverage their large consumer base to empower themselves? Will emerging technological advances be harnessed to serve humanity or just those countries and communities able to climb the technological ladder?

Finally, environmental degradation is happening. But can it be reversed? Will environmental degradation spiral out of control, with climate change making hundreds of millions of livelihoods untenable, or will the world manage to pull back from the brink through concerted action? Might rapid technological advances in big data, artificial intelligence and green energy, along with a renewed emphasis on multilateralism, lead to a successful Global Green New Deal, with various Manhattan and Moon Shot¹⁴⁷ type projects leading to investment poured into finding green and circular economy solutions for the world, or will the world slide into environmental chaos, with countries like Nigeria struggling to stay afloat?

More importantly,
how will Nigerians react
to these challenges?

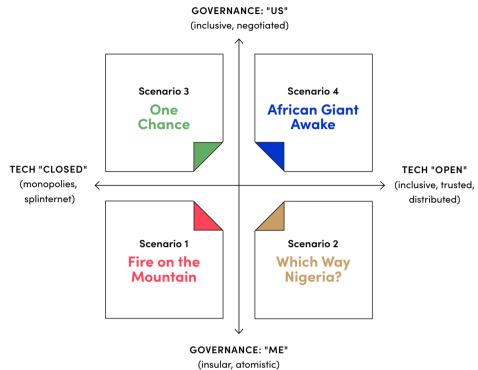
INTRODUCTION TO SCENARIOS

Scenario-building processes focus on the long term.
Scenarios are a creative way of shining a light on the critical factors that will drive countries in one direction or the other. They don't make predictions, nor even explore which future is most likely. They help decision makers think through how to better manage uncertainty and complexity, the only constants in today's world.

The four scenarios in this study were developed in this tradition. They address the different approaches that Nigeria could take in response to some major global trends as well as critical uncertainties, namely governance and technology — see the quadrant on next page (fig 1).

Will we have an "us" governance that is inclusive and negotiated or a "me first" governance that is atomistic and insular?

And will technology be open, inclusive and trusted, or closed and monopolistic — a "splinter-net"?



SCENARIO 1: Fire on the Mountain

In the first scenario, Fire on the Mountain, the parameters are a "me-first" governance in a closed technology environment. This is a story about what happens when Nigeria's deep inequalities are ignored by an elite class that is focused on maintaining the trappings of the state. Citizens are sacrificed on the altars of oil, data and sweatshops.

SCENARIO 2: Which Way Nigeria?

In the second and third scenarios, the Nigerian government responds well to one of the challenges but poorly to the other, leading to poor outcomes but not total catastrophe. In Which Way Nigeria? the nation seeks to address security challenges through effective surveillance that increases monitoring capacity giving unprecedented ability to collect taxes and undermining traditional sources of power. Collected data proves to be a goldmine. But the failure to pair new power with reforms to increase accountability engenders a new kind of tech-savvy opposition, launching the country into cyber warfare.

SCENARIO 3: One Chance

Meanwhile, in One Chance, the parameters are reversed, with accountable governance but a closed and splintered technology ecosystem. The nation tried for a quick fix but was seduced by the easy money offered by global tech giants to fund government agenda.

SCENARIO 4: African Giant Awakes

In our final scenario, the nation gets it right on governance and technology. African Giant Awakes is a story of a renewed Nigeria taking a leadership role in Africa and transforming its economy and society. This Nigeria is also enhancing its capacity to innovate, domesticate technology, diversify its economy and produce for both local and external markets. Nigeria is blossoming and optimism abounds as a result of hard work, and bold national ambition despite persistent challenges. Nigeria is finally getting the basics right.

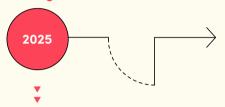


This scenario is named after the Nigerian expression 'Fire on the mountain, but no one is running' which denotes an extreme emergency with no apparent attempt to prevent or contain it.

Timeline

Fire on the Mountain

A poor response to COVID-19 has amplified Nigeria's social fractures



Poor response to COVID-19, anti-vax sentiment, and new

variants increase death and cement vaccine apartheid.

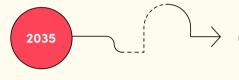
Citizens struggle to make ends meet while only the vaccinated can move freely and get jobs.

Intensifying waves of insecurity concentrate government efforts in restoring order.

Attacks against oil facilities force state governments into a deal with the saboteurs, who are successful in keeping the oil flow for the next decade.

China's digital giants, the BATs (Baidu, Alibaba, Tencent), secure the Nigerian market in exchange for US\$1 billion annual payments to the government.

In this me-first world, tech remains unregulated, and opportunists line up to extract maximum value from Nigeria. The Rule of the Cabals

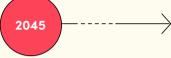


Insecurity rises with sabotage to oil infrastructure and the rise of 'protection' schemes, while massive unemployment remains.

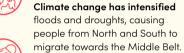
The BATs and several Nigerians earn billions selling people's data, reducing most citizens' data to commodities.

Foreign investors partner with local businesses to exploit the unemployed youth in sweatshops, profiting from ultra-light regulatory regimes.

The resistance emerges



Oil is no longer a source of wealth due to the global transition to net-zero.



New strains of COVID and a new pandemic plague the country.

Conflict and economic divides intensify.

Desperation and deprivation are leading to rebellion, supported by the diaspora.







2025

A POOR RESPONSE TO COVID-19 HAS AMPLIFIED NIGERIA'S SOCIAL FRACTURES

It is 2025 and while the COVID-19 pandemic and its many variants remain a huge concern, two related priorities have floated to the top of Nigeria's discourse.

For the authorities, intensifying waves of insecurity have concentrated minds on suppressing insurgencies and restoring a semblance of order.

For the majority of ordinary citizens, making ends meet is the only priority.

The impacts of on and off lockdowns have been severe and many think it is better to risk a small chance of dying from COVID or the new variants than the certainty of starvation.

Government's overall response to the initial pandemic and the later waves suffers from a lack of attention, imagination, seriousness, and resources. The huge gap between rhetoric and reality has cemented vaccine apartheid and endless pandemics.

Vaccines arrived a little late and inadequate in number for the large and growing population. However, the uptake by the people was quite low, providing space needed for the emergence of new variants of the COVID pandemic over time. As a public relations move, the vaccines were administered first to political leaders and health workers 'in order to raise awareness.' But they did not trickle down much due to trust issues and a sizable share of the population simply did not accept to be vaccinated.

Still in 2025, Nigeria's public health system cannot handle the wide vaccine deployment nor convince a sizable portion of the population to be vaccinated. Distribution is chaotic and the bad state of the country's roads, electricity and health system makes it a challenge to get a handle of growing health pandemics. The emergence of vaccine resistant as well as more deadly and infectious variants compounded the challenges.

With the gaps and increasing severity, opportunists emerge with ineffective vaccines and in some cases outright fake vaccines. Information trickling out was that those who received ineffective vaccines were re-infected, as the virus mutates. Old suspicions about polio inoculations continue to fuel anti-vax sentiment and many citizens continue to avoid being vaccinated. Stories about the vaccines being a means by the "West" to control Nigeria have added fuel to the fire. The fact that there are 'fake' vaccines in circulation only compounded the challenges. With the epidemic largely handled in the West, interest and investment in producing vaccines wane. The focus shifted to controlling entry.

Nigerians are divided between those very few who have received a proper vaccine and carry a Digital Vaccination Passport (DVP) on a mobile device to prove it,¹⁴⁶ meaning they can move freely both within and outside the country, and everyone else who has received a questionable jab or none at all. Getting a job, already difficult, has become almost impossible without the DVP and moving between states faces serious restrictions (let alone international travel).

The yawning gap between rich and poor, urban and rural, healthy and sick, secures wealth and power for a few, but everyone else — the pandemic underclass — is permanently locked out of all but the most basic (and often back-breaking) opportunities.

Faced with these crises, Nigeria's leaders are overwhelmed. Their paramount objective is to maintain the Nigerian 'ship of state', at least in form, even if not in function. They are desperately open to suggestions, interventions, proposals and solutions — from any corner.

The election of 2023 took place as a powerfully virulent strain took hold, expanding infections and increasing deaths. Within three weeks of the elections, one of the crude oil storage facilities in Port Harcourt came under rocket fire. The degree of deadly insecurity in the South went up a significant notch and newly elected state governors were desperate to secure their oil assets. They knew that the window of opportunity to make money from oil was

closing. Within the next three decades, the world would accelerate its energy transition away from hydrocarbons.

They instructed their security chiefs to identify the Big Men behind the rocket attacks. But rather than arresting the saboteurs, the governors proposed a deal. They handed over the keys to the oil infrastructure in exchange for a share of the revenues from sales. Without the resources for a protracted fight to secure the oil installations, they just wanted peace and the chance to sell as much crude oil as fast as possible.

In this me-first world, where tech remains unregulated, opportunists — known as the Cabals — line up to capture and extract maximum value from this flailing giant of a nation.

2035 THE RULE OF THE CABALS

Despite the sporadic sabotage, the deal with the new Oil Barons has guaranteed that over the last decade (2025–2035) the oil has flowed uninterrupted, exported to other countries around the world which have been slower at achieving their energy transition.

The new generation of Oil Barons
have amassed tremendous wealth, a
fraction of which is used to create job
opportunities in the protection business
for the pandemic-ravaged young men.

While cruder forms of sabotage against the oil infrastructure have continued sporadically, carried out by bands of desperate young men who had no other way of earning a living, a classic protection racket has also emerged for a disciplined militia. Instead of attacking the assets, a few local 'big men' began to organise militia to offer "protection" services.

The Digital Dons

Sensing a series of major, long term opportunities, China's digital giants, the BATs (Baidu, Alibaba, Tencent), swooped in just after the 2023 elections, acutely aware of the government's desperate need to be seen to be managing both the pandemic and deepening insecurity. They wanted to secure the attractive Nigerian market against western competitors, offering everything from digital entertainment platforms to biometric verification services.

So they approached the new government with two proposals. First, to roll out a Digital Vaccination Passport (DVP) accepted by major airlines, immigration and health authorities around the world. Second, to deploy a domestic Digital Health Pass (DHP) containing detailed information on an individual's health status. Now, in 2035, while the DVP confers freedom for those who have it, the DHP can be used to effectively control people.

In exchange for deploying these platforms and securing exclusive rights to all of the data they collect, the BATs pay an annual concession payment of \$1 billion. Given the light regulations on privacy, the BATs have extracted maximum value from Nigerians' personal health data. They hit the jackpot by selling the data containing biological and behavioural insights to the pharmaceutical industry seeking to test new vaccines and therapies. As a veritable petri dish of the virus, Nigeria was a perfect laboratory. In exchange for a series of upfront payments to continue funding election campaigns, federal and state governments have authorized the testing of vaccines and therapies on ordinary Nigerians. The modest stipend offered for participating in these clinical studies has attracted massive crowds.

The BATs also use the data to offer health-profiling services — anyone seeking to hire a worker can receive a full digital health profile of the prospective candidate. Over the last 10 years, the vast majority of Nigerians have been reduced to a stream of health and related data; disembodied and turned into commodities. Having developed a valuable goldmine of health, physiological and behavioural data for millions of Nigerians, a local subsidiary of a BAT has just launched a hugely successful initial public offering on the Shanghai Stock Exchange. Several new Nigerian

digital billionaires were created overnight on the backs of their compatriots' intimate personal data.

The Sweatshop Kingpins

On top of everything else, the country still faces a massive unemployment problem. While the vaccinated well-off continue to enjoy job opportunities, the vast majority are excluded from formal economic activity.

Capitalising on this massive pool of schooled, but unemployed youth, a group of foreign investors from Asia has teamed up with local business leaders to create special manufacturing zones, promising to create hundreds of thousands of manufacturing jobs, and to turn Nigeria into the factory to the world, making both low-tech garments and hi-tech digital gadgets.

They call themselves "the Conglomerate" and their proposition is irresistible for a government seriously short of both cash and credibility.

The Conglomerate negotiated a 20-year concession with the government to develop a series of factory enclaves. They have now developed, at their own cost, the physical infrastructure to support a huge build out of manufacturing facilities — roads, electricity, water treatment, and runways large enough to handle large cargo planes. They developed these factory enclaves in the most deprived and pandemic-prone locations of Nigeria. In exchange, government provides land and an ultra-light regulatory regime, effectively exempting all factory enclave areas from labour and environmental standards.

The country is desperate for work.

And the Conglomerate's Sweatshop Kingpins provide it.

During the building of the factory enclaves many hundreds of thousands of manual labour jobs were created, and it has taken five years to complete the infrastructure. Today the factories are humming, making electronic devices for the huge Asian market, personal protective equipment for the African market now struggling with new epidemics, and garments for the American and European market which take advantage of the relatively short supply chains from Nigeria to their online retail warehouses.

Working with the BATs, the Conglomerate uses digital health and ID platforms to identify and vet the factory workers they need. Workers are hired on zero-hour contracts which means they are paid only for those hours they spend on the factory floor. Should they fall sick or are absent for any reason, they are easily replaced at a moment's notice. There are jobs, but no job security, and no job satisfaction. Those who get hired are grateful for the work, however uncertain the terms. It is better than scratching out a living within their pandemic prone locations. The Conglomerate is enriching itself on the back of a large pool of desperate Nigerians.

2045 THE RESISTANCE EMERGES

It is 2045 and over the last 10 years the economics of the oil industry have changed radically as the energy transition towards renewables accelerates. Oil prices have fallen permanently. The oil barons have abandoned the infrastructure they have been milking during the previous decades, unwilling to invest in maintaining assets which are no longer generating income. Nowadays there is no oil industry to speak of in the country, only a large wasteland of abandoned infrastructure.

Climate variability has intensified floods and droughts. The south gets too much rain. Lagos, Port Harcourt and other densely populated coastal areas are daily losing more land to the sea as polar ice caps continue to melt. Migrants are moving from Lagos and the South West northwards to the Middle Belt, bringing with them their regional strains of COVID, further accelerating mutations.

Nigeria's North is even more vulnerable to climate change, facing increasing aridity, more frequent multi-year droughts, and accelerating desertification. Herding and farming are less viable. So migration from the North to the Middle Belt has also intensified. Competition for resources (land, water, and opportunities) has been worsened by the identity dynamics of ethnicity and faith¹⁵⁰.

Meanwhile, another pandemic (which some believe is related to COVID) surges in waves of varying severity, eroding confidence and sapping the energy of a large swathe of Nigerians. With limited movement, urban slums expand, causing greater economic divides.

Without economic opportunities, the urban slums have grown to become a veritable problem area.

Resistance

Desperation and deprivation are leading to rebellion. A group styling itself Nigerian Patriots has emerged from the fringes of the declining oil sector in the South, and there are the Climate Refugees in the Middle Belt — many of whom have not known a permanent home for almost twenty years.

Angry at being abandoned by local, state and federal governments, exhausted by the unrelenting pandemics and tired of being exploited by politicians, Oil Barons, Digital Dons and Sweatshop Kingpins, the Patriots and Refugees have found common cause and committed themselves to three main objectives:

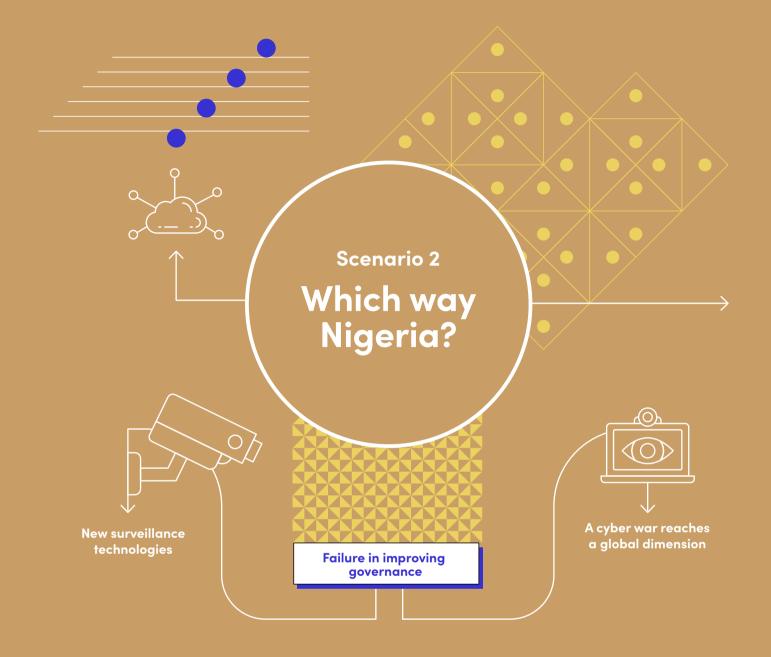
- Stopping the plunder of their country
- Taking back their land and dignity
- Making Nigeria Proud Again

Their appeal for self-determination cuts across location, ethnicity and religion. The nascent movement is over-

whelmingly young, and it is attracting growing material, digital and global communications support from Nigerians in the diaspora.

The Patriots and Refugees have begun to target the factory enclaves and their supply chains and the network infrastructure running the digital data systems. Careful not to cause harm to people, their dedication to revolution is attractive and their numbers are growing.

How will it end? Will the resistance gather momentum and easily take over power? Will it be able to disrupt the systems of exploitation that have rendered Nigerians mere commodities? Or will the powerful fight back, leading to an all-out war causing death and destruction on a scale unimaginable?



"Which way?" is a commonly used rhetorical question in Nigeria. It expresses a sense of exasperation at the state of affairs bearing in mind extant dilemmas and risks for the future. In this scenario, Nigeria focuses on addressing one critical challenge at all costs while neglecting other issues necessary to build a thriving nation.

Timeline

Which Way, Nigeria?

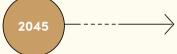
Towards the surveillance state

New surveillance technologies

Conflict









Nigeria faces a series of security challenges, unrests, and secessionist impulses.

A new government is elected with the promise of increasing security.

A locally developed surveillance system manages to reduce

insecurity and improve revenue.

Data becomes the "new oil", as the world transitions to renewables.



access to Nigeria's 5G market.

increases dramatically.

Crime and security threats diminish significantly, while tax collection

Reduced global demand weakens the importance of oil in Nigeria's economy.

Almost all economically active **people** are now banked and using a government mandated e-commerce platform.



With a better view of is citizens, the government found ways to identify citizens who are productive and those considered of little value ('the Left Behind Class' - LBC).

To avoid surveillance, rebels isolate themselves in Do-It-Yourself (DIY) tech villages.

Religious groups also reject surveillance and become hermits.



Globally, open science, open innovation, open data is the prevailing paradigm.

Climate change drives the transition to green technologies.



All data is now a global public good but with strong protections on privacy.

In Nigeria, data mining start**ups** are thriving servicing the government.

Several cities grow due to more efficient infrastructure and migration of climate change affected populations.

Efforts to improve governance in Nigeria fail.

DIY villages, which are in a tech war against the government, grow as LBC people seek shelter from a major climate change impacts.

Slowly a semi-autonomous movement of 'tech liberators' emerges with the objective of revolution and providing Universal Basic Income (UBI) for all.



Overwhelmed, the Government recruits outlaws and provides them with surveillance tools and data to help in fighting the rebels.

The cyber war reaches a global dimension.





2025 TOWARDS THE SURVEILLANCE STATE

Nigeria faces a series of security challenges from Islamists in the North, farmer-herdsmen conflict in the middle, rampant kidnappings, youth unrests and secessionist impulses in the South. At the same time dwindling oil revenues mean that security is increasingly unaffordable. The prospect of state failure is real. This was the key campaign issue for the 2023 elections and the new president won on the basis of restoring security.

He took on a recently returned policewoman whose PhD was on the potential for using technology to address security through better surveillance and predictive analytics. An innovation fund and challenge was quickly launched to develop a prototype of the surveillance system. A successful proposal was made by a local entrepreneur that combined surveillance with data analytics and also allowed deployment of armed drones and robots to carry out pre-emptive strikes against security threats.

Within 6 months, a major farmer-herder conflict was predicted and diffused based on data on cattle movements and weather. Two terrorist cells were broken using intense surveillance of a known sympathizer (movements, waking times). Later, a potential urban youth uprising was predicted by tracking game-playing patterns. Misinformation tricks were used to give government control of the movement.

The surveillance systems also had unintended positive effects. For instance, systems installed in marketplaces proved themselves effective in collecting data on market activities e.g., how much produce came in, how much was sold and at what price. The key revelation was the huge leakage in revenues.

Another revelation was the profits being made by market traders, with many making much more than middle class employees yet paying zero income tax. By 2025, government was already gathering more tax with this new information. Data was indeed the new oil.

2035 NEW SURVEILLANCE TECHNOLOGIES

The utility of new surveillance technologies having been demonstrated, a special commission was set up for a national rollout but no local organisation could handle its speed and scale (and government wanted total control of system) so Chinese^{151, 152} and Israeli firms^{153, 154} were contracted to implement a turnkey project. A consortium of Chinese firms, eyeing the big 5G market offered to do it for free in return for exclusive access to the 5G market. The ability to showcase surveillance technology for export to other markets in Africa and elsewhere was also an important attraction. Today, in 2035, 70% of the country is under surveillance, including all big cities and most road corridors.

The citizens were initially apprehensive but were persuaded by improved security. On roads, the hijacking has disappeared. Sure, they can no longer bribe police for traffic offenses (and have to pay fines) but they have realized that if they obey the law, they neither have to bribe nor pay fines. Muggings have also largely become a thing of the past and Nigeria is a 24-hour economy. There is only one power to deal with — the government — and since the government is clear about what it wants, life is quite easy (as long as you obey).

The government monitors national threats and takes preemptive actions, meaning security threats are generally fended off. And since it has been effectively monitoring its tax agents, they can no longer take bribes or steal from the state. Tax collection has increased dramatically. To further increase tax and ease its collection, the government has put in place a plan to move the economy online, with a new platform allowing informal traders to trade online, access government services and even enrol into national social security and access some support e.g., occasional grants.

To encourage use of the platform and enrolment on the online payment system, free smart phones have been provided with free data for financial transactions. Again, Chinese firms provided the financing. Almost all economically active people are now banked and are using the platform, and almost all consumers are online,

making monitoring and taxing much easier for government. A new appreciation of technology has seen massive investment in equipment and skills and a re-organisation of government, with the Ministry of Finance now merged with Defence and Internal Security, under a super minister.

The vast amount of data now in possession of government has opened opportunities to build new businesses, as new elites bargain with government on data concessions^{155, 156}. This has provided some stability. Oil has now faded from being the most important source of revenue for the state, as prices have slumped with reduced demand globally.

New data has allowed better segregation of people who can now be valued and commercialized. New identities tied to marketplace have been engineered. People become a commodity!

With a better view of its citizens, the government has found ways to identify citizens who are productive and those considered of little value ("the Left Behind Class", LBC). "Productive citizens" are given priority in providing services, while "the LBC" are generally abandoned to their devices but monitored in case they become restless (in which case pre-emptive action is taken).

Given the prevalence of open technologies globally, there are reports that some groups of technology rebels are beginning to organise themselves into Do-It-Yourself (DIY) tech villages that will be able to block surveillance technologies and even hack the government systems^{157, 158}. The cost of fighting these nascent rebel groups is currently seen as not worth it and they are largely left alone. But their villages are growing and are becoming part of a global movement against the surveillance state^{159, 160, 161} with the diaspora acting as a bridge.

The religious communities of Nigeria have largely followed the government direction and, in return, data on their congregations is made available allowing them to accurately establish incomes and tithe accordingly. However, a splinter group that sees end-of-times doom emerges, just as the government begins to take biometrics from all citizens and equip all livestock with chips^{162,163}. They reject the system and become hermits.

In this world, criminal gangs prey on the LBC and the hermits.

2045 CONFLICT

It is 2045. Cities have grown as a result of government encouragement of "more efficient" urban growth, and resources have been allocated to provide basic infrastructure. The more educated have emigrated as they cannot tolerate the surveillance state and do not have appetite for being rebels in the DIY Semi-Autonomous Tech villages. Climate change has only accelerated urban migration, although the LBC cannot avoid nor endure the vagaries of climate change. The DIY villages have adopted green technologies like windmills and solar and are using 3D printing, blockchain technologies and other "fourth industrial revolution" technologies as part of a tech war with government.

Many data mining start-ups have now been established and are thriving servicing government (with the sponsorship of various owners of data concessions). Government is employing legions of social engineer experts to develop new identities and undermine traditional sources of power.

Globally, open science, open innovation, open data is the prevailing paradigm. The battle against COVID-19 saw the adoption of the open science principle and the subsequent development of several vaccines in under a year demonstrated the power of open science. With the other looming challenge, climate change, becoming a bigger danger by the day and requiring the invention of many technologies, and indeed a whole shift of the

economy to green technology, the world agreed on "open science, open innovation, open data" and a global agreement was reached.

The mandate of United Nations Educational, Scientific and Cultural Organisation (UNESCO) was greatly expanded and all countries agreed to contribute a 0.5% share of revenue to an innovation fund to support global R&D. In this spirit, big Tech companies were forced to make their data available to all. Indeed, all data is now a global public good but with strong protections on privacy. People have control of their personal data and can sell it. A thriving market to sell personal data emerges.

However, tragically, efforts to improve governance in Nigeria have not been successful and the idea that countries should not impose their governance standards on others has prevailed.

A major climate change event (huge flood in South and huge drought in the North) a few years ago triggered a massive movement of LBC people mainly to DIY enclaves which are less dangerous.

Slowly a semi-autonomous movement of "tech liberators" has emerged with the objective of revolution and providing Universal Basic Income (UBI) for all. They have reached out to the LBC, educated them on cyber warfare techniques and started to engage government. They do counter surveillance and publicise every movement and transaction of key government officers and enablers. 164 They also flood certain parts of the system and bring them down. The diaspora provides financial and technical support. 165

Overwhelmed, the government recruited outlaws and provided them with surveillance tools and data to help in fighting the rebels.

They got some data concessions as part of their payment as well as access to powerful tools usually only available to the government. Reports have emerged that mercenaries from the global dark web are invited to join the local outlaws. The fight is also joined by hackers from the open world who support the Tech Rebel coalitions with new tools and even cyber warriors. The cyber war has a global dimension.

It is not clear what will happen next. Either rebels will over-whelm the government and make their systems unusable, forcing the government to open surveillance systems for oversight by civil society. This could lead to new leadership that is accountable, making available the full benefits of open technology/open science. Or the government could prevail, with the support of criminal elements. The criminals with other forces would gain new power and expand their zones of influence, demanding a greater share of revenues on data concessions.

The cyber war has a global dimension.





Photo by Shutterbouy and Ayanfe Olarinde on Unplash



"One Chance" is a Nigerian expression that refers to the practice of being hoodwinked or tricked. Warnings are usually given to Nigerians not to enter "One Chance" when on a journey or in a business relationship.

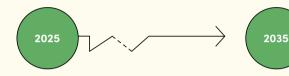
In this scenario, Nigeria chooses the easy options, but is seduced and hijacked by tech giants.

Timeline One Chance Timeline

The Trojan Horse

Deal with the Devil

The Pushback





Tech giants (FAANGs: Facebook, Amazon, Apple, Netflix, Google) choose Nigeria as their entry point to Africa, creating jobs for the people and generating revenue for the government.

Broadband infrastructure and an integrated Digi-Gov system are fully deployed in Nigeria.



The tech services sector thrives in Nigeria, driving unprecedent growth and government efficiency.

Trust in the government improves while a general sentiment that 'our data is our future' prevails.

AfCFTA accelerates with the FAANG deal seen as a blueprint for Africa.

The Nigerian government starts shutting down local entrepreneurs that could become competitors to the FAANGs.

Rumours start circulating about the actual deal with the FAANGs and what Nigeria was getting out of it.



Extreme weather, caused by climate change, destroys infrastructure built by the FAANGs and coastal cities are left with no internet access.

The FAANG replicate the "Nigeria Digital Dawn" in some other Africa countries.



A new political party, the 'takebacks', is formed by a group of tech savvy politicians opposed to the FAANGs deal.

Dissatisfied with the FAANGs deal, groups move to areas with limited internet access and revert to pre 2021 times.



Government starts using big data to reward good behaviour and punish opposition, imprisoning their leaders as 'enemies of the state'.

Information on how the FAANGs use Nigerians' data to monetize is leaked by rebels and the citizens realize they were lied to for years.

A group of Nigerians displaced by climate change extreme events band together to destroy much of the digital infrastructure, resulting in parts of some major cities going 'dark'.



Government and the FAANGs

are using their remaining digital infrastructure to censor and manipulate news.

Sabotage to the FAANGs infrastructure is spreading across the country.



The diaspora funds the 'takeback' movement and Nigerians urge FAANGs to pay back what they really owe for profiting with people's data.

The FAANGs threaten to pull out of Nigeria and demand payback for their investments in infrastructure.

2025 THE TROJAN HORSE

The 2020 election of USA President Biden was a turning point for the FAANG group of tech giants (Facebook, Amazon, Apple, Netflix, Google). Under the previous presidency, they were used by Donald Trump to polarize the United States 166, 167. To ensure that the FAANGs would not be able to exert that kind of influence again, stricter anti-monopoly regulations were put in place in the USA and EU. 168, 169

The FAANGs realized that with doors closing in the West they had to look for other markets to maintain hyper growth. The obvious target was China, but trade tensions with the USA had not yet calmed so they had to find an alternative.

Nigeria was their entry point into Africa, the fastest growing region of the world expected to account for half of global growth.

To ensure their individual and collective survival the FAANGs formed an "arms-length" relationship to use elements of their know-how to create a "closed off" technology/digital system¹⁷⁰. In the aftermath of the 2023 elections, they approached the Nigerian Government with a deal, whereby they would (as a collective) provide the following:

- Mass digital training in areas such as machine learning, Al, systems thinking, quantum computing, etc.
- Preferential job prospects ahead of candidates from other countries.
- Investments in Nigeria's physical infrastructure to supply high speed, 100G per sec connectivity to the entire country¹⁷¹. Any visits to their collective assets would be "zero rated" (free).^{172,173}
- Headquarter their Africa and Middle East businesses in Nigeria[,] and help position Nigeria^{174, 175} as the head of "Digital Africa"¹⁷⁶ catalysing a new "Silicon Valley" to attract tech companies to the country.

- Jointly create a proprietary Digi-Gov platform to help accelerate government digital transformation and "share" data to ensure hyper efficient government services.^{177, 178}
- Use their platforms to enhance Nigeria's tech sector by, for example, giving Nollywood preferential services on Netflix¹⁷⁹ and significantly reducing piracy.
- Enhance "Brand Nigeria" and help uncover new Nigerian talent to create local content.

In exchange for the above, the FAANGs successfully negotiated:

- Rights to all Nigerian citizens' data (to be 'shared" with government) for commercial and research purposes
- Within reason, exclusivity within their various domains e.g., E-commerce for Amazon, Apple would be sole provider of hardware to the service sector, etc.
- Payment of a "concession fee" of US\$30bn per annum (based on future NPV for access to all the above)

The FAANG deal is easily justified; simply formalising the informal economy could increase the tax base by as much as 20% of GDP! After some consideration, the Nigerian Government agreed stating: "After many false starts, this is truly the Africa Rises moment. Today is the day we start standing on our own two feet!"

The official opposition party disagreed, releasing the following statement, "This is a Trojan Horse. The government has decided to not only invite them in, but to serve them burukutu and let them into our bedrooms." But for the Nigerian government and many in the business and civil society, this was a big win which could provide a basis for structural change and economic transformation.

Now in 2025 the terms are fully operational. The FAANGs have built infrastructure (Loon internet) and equipped SMEs with computers and physical infrastructure such as "Silicon Valley" buildings. The integrated Digi-Gov system has been inaugurated. Mass employment has been created through the need for more workers to satisfy the newly created industries and hundreds of thousands of tech-enabled workers have joined the FAANG workforce, with many more using their new skills in non-competitive, adjacent in-

dustries as well as providing offshore outsourcing services. So far the use of data is minimal especially given the main focus on building massive infrastructure. The sceptics have been silenced. It's looking good.

2035 DEAL WITH THE DEVIL

In 2026, a group of engineers trained in the first FAANG cohort realized they could use machine learning and AI to optimize grain yields en masse¹⁶⁰ and revolutionize agriculture. Similar gains have now been seen across various sectors such as manufacturing using automation to reduce errors. With new elections coming up in 2027, the opposition party ran on the premise "Forego the FAANGs" but while there was some initial support, ultimately the GDP growth, unemployment decreases and general sentiment that "our data is our future" won the day.

The Digi-tech platform¹⁸¹ has created hyper efficient government eliminating much corruption, with the FAANG implementing early warning Al tools for fraud^{182, 183} and user error. Even better, with increased efficiencies and more businesses in operation, not only has the tax base swollen, but these extra funds have been invested into primary healthcare, policing, housing, roads and water access.

Gradually, Nigeria realized that data was indeed the new digital oil¹⁸⁴ and "mining" it was not only "easier" but substantially more valuable as it could be reused to improve services. This was especially important given the declining revenue from oil. These incredible gains led to unprecedented "trust in government" levels never seen before in Nigeria with an approval rating of the President of over 78%.

By 2030, Nigeria was hailed as the "epitome of tech and gov"; the results were there to be seen. Since agreeing to the deal with the FAANGs, Nigeria had experienced an annual average growth in GDP of 15%. The President called for an acceleration of AfCFTA since the FAANG deal is now seen as a blueprint for Africa. The motion is overwhelmingly supported. The FAANGs now have a scale option to replicate the "Nigeria Digital Dawn" across Africa and in-

crease their already swelling coffers of revenue and, more importantly, data.

In 2032, the President won a second term virtually unopposed, although her approval ratings dropped slightly as rumours started to circulate about the actual deal with the FAANGs and what Nigeria was getting out of it.

Meanwhile, the BATs (Baidu, Alibaba, Tencent), realizing the opportunity window was closing, created similar deals with Egypt and Kenya putting these countries on similar trajectories in terms of growth but bringing the "East/West" conflict to the battlegrounds of Africa.

Although a number of Nigerian entrepreneurs create businesses that could become competitors with the FAANGs, the Nigerian government is forced to shut them down or acquire them, because of the deal it has signed. Many move overseas to headquarter in other countries.

Climate change and health crises

This year, 2035, climate change struck with a massive Atlantic storm that flooded half of Lagos and other coastline cities 185,186. The infrastructure built by the FAANGs was mostly destroyed and coastal cities left with no internet access. As the floods spread, so has disease, and even the rapid search functions of Google, which have helped identify symptoms and direct aid, have not prevented the deaths of hundreds of thousands. In this crisis, the President decided to delay elections.

A new political party has been formed by a group of tech savvy politicians opposed to the FAANG deal: The Takeback party. They have started to openly question the motives of the FAANGs, backed by some religious leaders.

This message is resonating strongly with many who have grown tired of their dependence on the FAANGs and want to take back their country. Parts of Lagos without internet become desirable locations as those that live there revert to pre 2021 times with limited/no connectivity while it is being rebuilt¹⁸⁷. For some, it seems like independence!

2045 THE PUSHBACK

In 2036, the President and her Cabinet grew concerned with the groundswell support of the Takebacks. The government realized that the mass data on Nigerian citizens could further be optimized by linking online behaviour to the physical world. This was a form of social engineering to incentivize "good" behaviour through benefits such as reduced taxes, better interest rates on loans, higher access to jobs, preferred treatment with government services. Those with bad behaviour have diminished access to services, and those without a digital history are completely disqualified from any government services¹⁸⁸. The latter narrative was not publicly made but the spread of disease is reason enough for most citizens to agree to (once again) sacrifice and go online to counter death by the disease.

Of course, the Takeback party and its supporters are targeted with questionable ratings and many of them are disallowed from voting. There was uproar but in 2037 the government went a step further and banned Takeback as "enemies of the state", imprisoning the leaders. The government officially recorded a rebound in approval rating, but many were excluded due to low social scores.

By 2040, the use of the Nigerian data was still lucrative for the FAANGs but, in an ever–increasing push for profitability, they licensed Nigerian data through Application Programming Interface (API) that increases their revenues outside of Nigeria¹⁸⁹.

Nigerians were increasingly viewed only as "streams of data" to monetize.

In 2042, this information was "hacked" by a diaspora-linked group and the information the FAANGs promised they would share with the Nigerian government was found to be incomplete and even censored. The Nigerian populace realised it had been lied to for two decades. Demands for the President to resign grew as evidence emerged that in the run up to the 2035 election, the FAANGs used their data to sway public sentiment to ensure the government was re-elected¹⁹⁰.

A group of displaced citizens, many of whom moved during the great flood of 2035, banded together to destroy much of the digital infrastructure, resulting in parts of some major cities going "dark".

Fork in the Road

It is 2045 and the government and the FAANGs are using their remaining digital infrastructure to censor and manipulate news¹⁹¹ and silence rumours that both previous presidents were "pawns" of the FAANGs. The government is using tactics from 25 years ago to bring in fake news, but this has swollen the ranks of the Takeback party. The destruction of FAANG infrastructure is spreading across the country. The Takebacks are funded through the diaspora. "No to digital colonialism" is the rallying cry.

Nigerians want to support local businesses to compete with the FAANGs and receive government investment. And they want the FAANGs to pay back money — USD300bn per year reflecting the true market value over the last quarter of a century. Encouraged by the Takebacks, other African countries are supporting this stance and there are rumours of regional bloc sanctions on Nigeria unless the FAANGs abide by the new demands.

The FAANGs are threatening to pull out of Nigeria and demanding payback of \$750bn plus interest lest they cut off the digital infrastructure they have invested in over the last 25 years.

Caught at the crossroads of an unknown future, Nigerians need to determine their path. Either the FAANGs will refuse to relinquish control, aided by the President who manages to squash the Takebacks' uprising. This would lead to enactment of the exclusivity clause further consolidating FAANG power, a model they would then replicate in other countries with exponential gains due to higher "data wells" leading to what some fear could be an "existential threat of digital colonisation." Or the president will be voted out, leading to the FAANGs being negotiated out of Africa, with Nigeria open-sourcing its data, encouraging a "million flowers to bloom".

Caught at the crossroads of an unknown future, Nigerians need to determine their path.

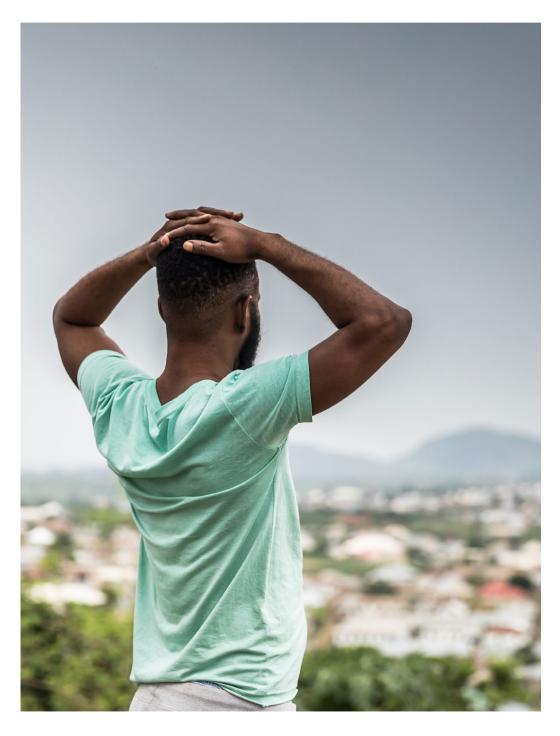
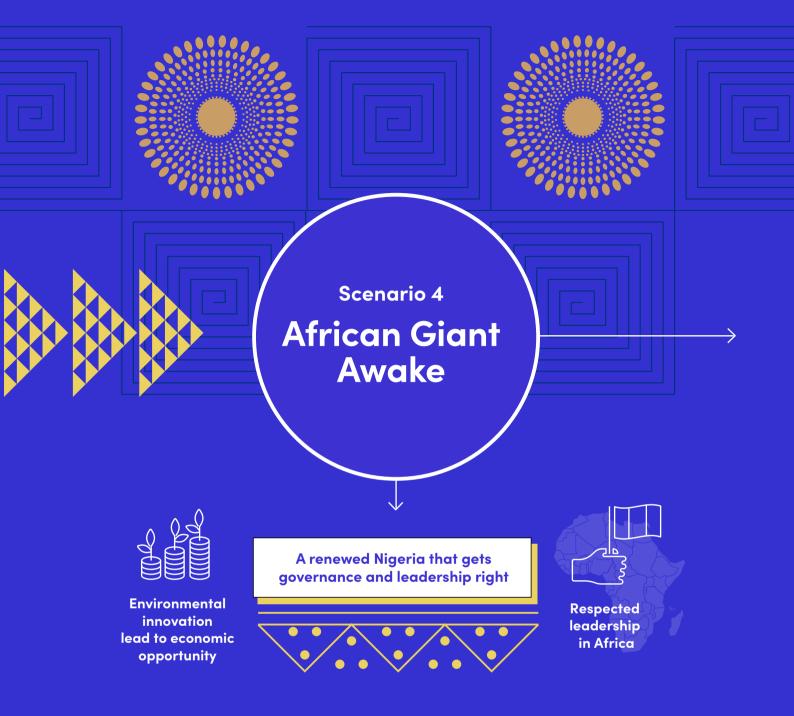


Photo by Ovinuchi Ejiohuo on Unsplash



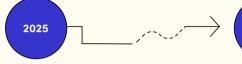
Nigeria is often referred to as the "Giant of Africa" owing to its size. But it has been a "sleeping giant" with latent, untapped, strengths and opportunities. African Giant Awake! is a scenario of a renewed Nigeria that gets governance and leadership right while enhancing innovation and diversifying its economy.

Timeline African Giant Awake

Finally tackling entrenched problems

Environmental innovation has led to economic opportunity

Respected leadership in Africa





2045



Oil shocks and the COVID pandemic raise awareness on the imperative of improving revenue mobilization.

Nigerians elect a new, dynamic

improve revenue collection and

leadership which sets out to

invests in productivity.



The buzz of change drives the growing youth population to elect more reformist governors, building a political movement never witnessed in Nigeria.



Climate change related extreme weather events in the North and the South of Nigeria lead to major internal displacements, resulting in the new government investing in better climate and health crisis response and resilient agriculture.



A coalition of frustrated youth and middle-class urbanites lead protests.

A range of new challenges develop

from rising urbanization, limiting

Fears of social unrest grow as

The elections saw the rise of a

youth-led party campaigning on

the need for rapid change; Nigeria

experiences a new wave of reforms.

Green and blue economy is centre-

stage, while R&D initiatives rebuild

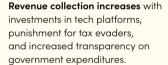
urban and rural infrastructure and

with the oil further receding.

inequality rises and jobs are hard

the country's productivity.

to come by.

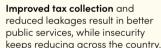


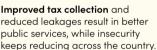
Impunity is being addressed by

reformists in key positions and

improving judiciary.

additional funding is directed to







Strengthening industrial capacity and economic diversification can now be the focus of public policies.

Partnerships with the private sector and massive investment in local R&D and start-ups revolutionize traditional sectors while creating



new ones.

A new pandemic hits the world and, due to the renewed R&D system, Nigeria is the first to produce an effective vaccine.

New technology is being used to tackle impunity and improve accountability.

Positive results bring many in the diaspora back bringing skills and investments

Investments are made in building state capacity and devolving responsibilities in critical areas to state and local governments.

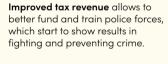
Growth begins to decline.



Training for the emerging tech sector and a more tech-savvy agrobased industry create jobs and

Nigeria starts to witness a reversal of urbanization trends.

Nigeria has become respected globally for leading the African continent and pushing for better global governance to address the emerging challenges of the second half of the 21st century.







2025 FINALLY TACKLING ENTRENCHED PROBLEMS

It is 2025 and following two recessions within 4 years (2016 and 2020) as a result of two oil shocks and the havoc wreaked by the COVID-19 pandemic, there is a heightened sense of awareness about fiscal crisis and the imperative of improving revenue mobilisation.

In 2023, the Nigerian president who was not seen as a threat by the power brokers turns out differently and he amassed reformist elites in the Cabinet. There is tangible domestic and international excitement over a new, more dynamic, leadership in the world's largest black nation, which has immediately set out to improve revenue collection and invest in productivity.

New technology platforms have been built, some in partnership with local private sector, to make it easy for everyone to pay their taxes, and the government has begun to crack down on prominent politicians and businesspeople who evade them. All government officials are obliged to declare their assets and tax payments on a routine basis as a pre-requisite for holding government office. Citizens are now required to show proof of tax payment prior to receiving key government services.

When some "political godfathers", previously considered untouchable, are put on trial for tax evasion, people expected a major backlash from vested interests but the president and his reformist cabinet are standing firm, even in the face of opposition's claims that the government is trying to exploit Nigerians.

To counter this narrative, the government has launched a campaign to explain how taxpayer funds are being spent, including town hall meetings broadcast live on major media platforms. A hotline has been established to answer questions. Revenue collection data and project implementation updates are available online.

Government has also begun to address impunity, placing reformists in key positions. Funding for judicial services is increased (using higher tax revenue). With better

funding and equipment, police investigations are beginning to improve. Officials have been directed to prosecute all known cases of police brutality and the presidency invests time in communicating those efforts and engaging with the citizens.

Last year a case caught national attention when an army general and his security detail attacked a group of people for not getting out of the way in traffic. The general and his men were arrested and publicly tried and although the general got off with a fine, it was an indication that the administration would get tough, even on prominent individuals.

At the same time, the administration is seen to be urgently focusing on the security threat. Better funded police are recording wins, even apprehending criminals prior to crimes being committed — from cattle rustlers to kidnappers. These wins systematically communicated by the government is increasing trust in the government. Truly overhauling the security services will take several years, but Nigerians feel encouraged by a decisive focus and evident success.

2035 ENVIRONMENTAL INNOVATION HAS LED TO ECONOMIC OPPORTUNITY

The buzz of change (and the fear of falling backwards again) drove the growing youth population to rally around the President and elect more reformist governors building a political movement never before witnessed in Nigeria. The 2027 election is won by a landslide giving a mandate to continue reforms.

Although tax reforms have led to a much higher tax-to-GDP ratio of about 20%, exceeding most African peers, it is still lower than the OECD average leaving room for further improvement. Leakage is down, as it becomes more difficult to hide proceeds of corruption, and citizens have begun to see improvements in critical public services like power and security. There is a sense that insecurity has also reduced across the country.

The government has now decided to focus on strengthening industrial capacity and economic diversification. In partnership with the private sector, big bets have been made on developing new and climate-compatible economic activities in technology, agriculture, and green economy as well as deepening the creative economy (design, fashion, movies, music).

As part of this effort, government has set aside 50% of the education tax (2% of company profit) to fund R&D, and company spend on R&D gets matching government funds or a tax write-off. Nigerian "policy banks" help promote national objectives of improving productivity and expanding exports.

Agriculture is a key target:

expanding food production, adding
value, and ensuring that emerging
Nigerian agribusiness can enhance
processing and exports.

Agricultural productivity has been improved through state-provided financing, expanding irrigation and access to technology, and addressing storage, processing and transport. Rural roads have been built and improved.

Government has set a target for boosting Nigeria's domestic automobile and steel industries, building on existing local capacities, helping — with significant public investment — to establish entrepreneurs to produce automobiles (electric vehicles) and products for the African market. Tax/finance incentives and tariffs on imported vehicles have been paired with an aggressive requirement to export. Firms report quarterly export revenues to a new government agency. This focus on exports forces higher productivity, allowing Nigeria to tap other African markets.

Government is also seeking to scale up 1 million start-ups in a decade, bringing together government, policy banks, industry and international DFIs such as the AfDB. The focus is on light and green manufacturing, digital economy, soft-

ware, agriculture and health. A \$5 billion "Nigeria Startup" fund has been launched and after only a few years, Nigeria has begun to witness the rise of new entrepreneurs and firms. Many in the diaspora witnessing a change, and with targeted incentives and policies, have begun to return home to create businesses or partner with Nigerian firms. Exports have exploded.

As the next stage in tackling impunity and improving accountability, new technology is being used to monitor the police and other security agents, enabling citizens to report public officials breaking the law. Those caught are severely punished.

Further, faster

With greater state intervention in the economy, lack of state capacity has been highlighted: poor services and ineffective oversight. Progress is being made, but people are asking for more! A new program of state reform has been launched, focused on building state capacity to implement Nigeria's ambitious agenda.

Elements of the reform include restructuring public administration, creating islands of excellence and experimentation, merit-based recruitment, and new independent agencies to drive implementation.

Recognising the challenge of transforming the country from the centre alone, the federal government — in partnership with states — has begun a significant devolution of responsibilities to state level in critical areas such as education, health and security. States have also been given the power to manage the business environment including corporate registration, regulation and taxes. These reforms have given states more power to drive their own development agenda. Competition among states has meant spectacular results for the leading states, while the others begin to copy their example.

Today, in 2035, exports are growing, significantly easing pressure on the Naira and expanding revenue for the country. Success is driving new measures including the launch of a program to promote exports by Nigeria's

creative industries. This includes the first 'Nigeria Towns' — think Chinatown — launched in Atlanta (Georgia) and Brooklyn (New York). The concept is licensed to private sector investors hoping to launch similar concepts in major cities in Europe and elsewhere. People from all over the world come to enjoy Nigerian movies, music, dance, food and fashion.

2045 RESPECTED LEADERSHIP IN AFRICA

In 2036, Nigeria suffered two extreme weather events: excessive rains in the South and prolonged drought in the North. These led to major internal displacements and migration and provided fuel for naysayers to challenge the government on the lack of adequate disaster prevention. The ruling party won the election but by a diminished marain.

A newly elected president took the vote as a call to drive change even faster than the previous government.

The first decision was to create a think tank linked to the Presidency focused on environmental scanning to help the government put in place a national disaster and recovery strategy. The think tank is working with existing agricultural institutions — national and state — to adopt new approaches to farming which rely less on rain.

The government has also put in place programs to anticipate and address health crises, leading to the revamping of research and development in the biomedical and health fields with links to key medical schools and private sector investors. In a few years, Nigeria is back to producing vaccines and developing new medical products to address health challenges facing the developing world.

With increasing confidence in its locally developed products, government is strategically using its purchasing pow-

er to promote national industrial development, launching a "Proudly Nigeria" trademark to brand high quality products for the local and export markets.

When a new global pandemic rapidly spread around the world in 2038, Nigerian biomedical institutions were at the forefront of producing the vaccines. Astonishingly, a Nigerian vaccine was the first to be approved by many countries around the world. This was a game changer for the Nigerian health industry. It drove investment in the sector and attracted international firms coming to locate their R&D and manufacturing in Nigeria.

A new Nigeria was emerging. With improved economic performance, citizens feel dignity and a sense of national belonging. This virtual circle is attracting investors and skilled experts, boosting confidence, and raising domestic savings and investment.

Managing setbacks

Despite the progress, growth began to decrease in 2039 as a result of many factors, including rising inflation due to increasing food prices and the inability to continue to ramp up civil service reforms. As growth slowed, political bickering intensified, and the middle class grew increasingly restive. Major controversies emerged over who receives government support, threatening progress in improving industrial productivity. There were also still large numbers of youth unable to participate in the economy, given low levels of education and lack of skills. A sizable share of the population had not fully benefited from the growth.

Meanwhile rising urbanisation has caused a range of new challenges. Growing urban centres mean people can organise better to hold governments to account; elected officials are voted out more often. While this volatility endangers policy continuity and hampers investment, it does provide a basis for incremental progress in governance. However, years of planning failures and a backlog in investment meant infrastructure has not expanded to meet the need causing traffic jams and limiting productivity.

Will Nigerians and their leadership rise to the occasion? Time will tell.

Fears of social unrest grow as inequality rises and jobs are hard to come by. A coalition of frustrated working-class youth and unemployable middle-class urbanites seeking more lead protests.

The 2039 elections saw a landslide victory by a youth-led party campaigning on the need for rapid change, skills-based education, adoption of technology, radical reduction in population growth, radical decentralisation, leading Africa and transforming the economy. They argue that previous reforms were not consistent, and the pace was too slow and embarked immediately on reforms to promote efficiency and effectiveness, transferring more power to states and speeding up online government.

Today, in 2045, green and blue economy is centre-stage, with major R&D initiatives and rebuilding urban and rural infrastructure.

Nigeria is rallying African nations to work together on the global stage as a bloc, building on its youthful, dynamic population and a sizeable market. The oil economy is now almost a memory.

A national industrial apprenticeship program is helping millions of unemployed or underemployed youths with training for the emerging tech sector and a more tech-savvy agro-based industry. With growth and infrastructure development in rural and semi-urban areas, Nigeria is beginning to witness a reversal of urbanisation trends. The government has built coalitions with civil society on the human challenges arising from rapid growth focusing on fair access to resources and opportunities.

Nigeria has become respected globally for driving a distinctively African agenda, promoting continental integration, from open movement of labour, goods and capital to cooperation on major issues such as innovation, education and continental infrastructure. The new Nigeria is leading the African continent pushing for better global governance, global citizenship and evermore global inter-

connectedness to address the emerging challenges of the second half of the 21^{st} century.

Nigeria will have to be ingenious, mobilize all its citizenry and harness a broad-based leadership if it is to achieve the African Giant Awakes scenario. It has all the currency it needs in terms of size, cultural and soft power, a perceived leadership role in Africa, and the market power to carve opportunities for itself in an increasingly competitive global environment.

But it will not come on a silver platter; the scramble for Africa continues whether by the old actors or newly emerging powers. Nigeria will have to work for its right to lead and use its position within the region to rally the continent for a common purpose and agenda. The challenge for Nigeria, as the Analysis section showed, is to ride its opportunities, while mitigating threats to progress.

Will Nigerians and their leadership rise to the occasion? Time will tell.

SIGNPOSTS FOR THE SCENARIOS

All four scenarios are plausible and some kind of combination of more than one scenario is likely. The table below gives pointers to identify if one or other scenario is emerging.

TABLE 1 ▶ "Signs that a scenario is becoming likely"

Scenario 1 Fire on the Mountain

Signposts:

- There is a large gap between COVID-19 vaccination ambitions (70% of population vaccinated) and achievements
- Major countries and firms make public commitments to achieve carbon neutrality in the next 20-30 years. Oil becomes a stranded asset
- The government finds it difficult to address growing insecurity
- A digital cold war between the US and China, which incentivizes firms on both sides to secure large markets in Africa
- Extreme weather events increase with adverse effects on urban centres

Scenario 2 Which Way Nigeria?

Signposts:

- Security is the biggest concern across Nigeria.
 Citizens become more likely to exchange privacy for security
- The army is deployed in the North, South, and Middle Belt
- Increasing diaspora engagement in supporting movements in Nigeria
- DIY villages function in some areas of Abia State with complete makeshift oil refineries
- Chinese dominance in 5G is reduced by the US asking allies to kick out Huawei¹⁹²

Scenario 3 One Chance

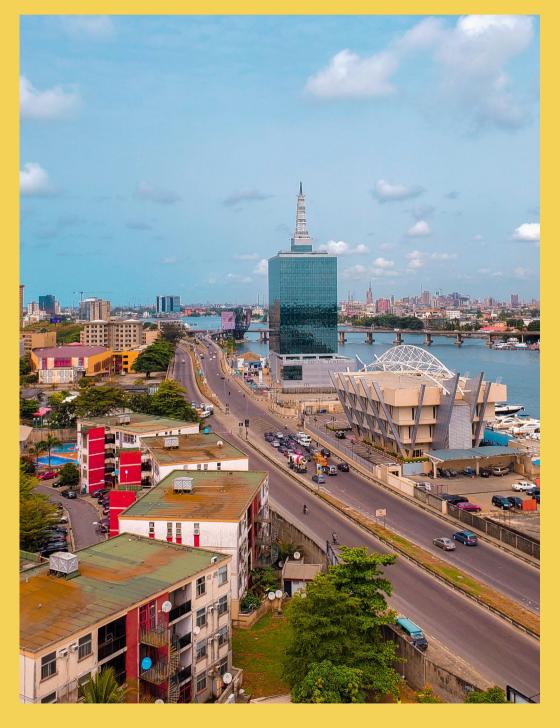
Signposts:

- There is a vacuum of adequate digital infrastructure leaving "external" players to readily fill the gap
- The breach in digital understanding between Nigerian citizens and the rest of the world is accelerating
- Multinational companies are cut off from their primary, secondary and other growth markets and need data sets
- The "deal" is too good to be true
- Regional trade blocs are slowing, and new ways of national growth are required

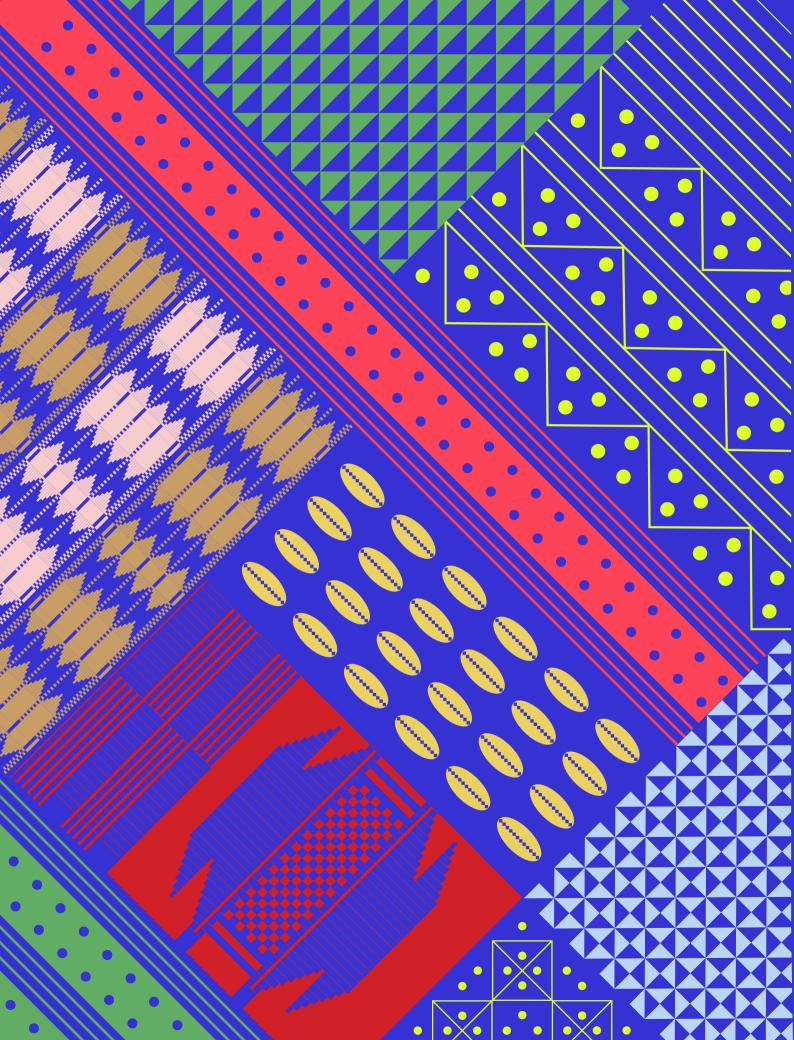
Scenario 4 African Giant Awake

Signposts:

- Determination to enhance domestic revenue and improve resource management
- Willingness to address security issues head on and end impunity
- Technology is built and adapted to address critical issues
- Investments are made in technological learning, particularly R&D
- Firms are rewarded for raising exports
- Governance is enhanced at the various levels, including devolution of powers to states and local governments
- The public is engaged on key national issues; people achieve a shared national vision



Lagos, Nigeria. Photo by Nupo Deyon Daniel on Unsplash



Part Three.

Recommendations: The Opportunities

The Way Forward Nigerias many opportunities to shine brightly

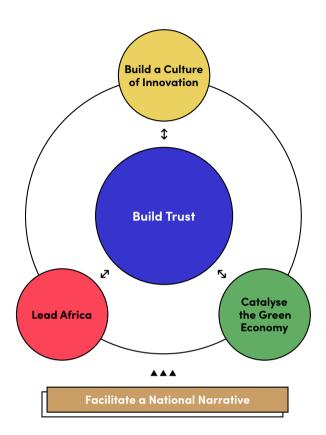
As the Analysis and Futures sections have shown, Nigeria has many opportunities to shine brightly in the coming years but is facing many daunting issues. While there are many issues to be addressed, a few rise to the top given their potential to create chaos. These existential threats include climate change, the growing levels of insecurity, the looming end of the oil economy, and rapid population growth leading to unprecedented levels of migration and urbanisation. These in many ways are 'wicked' problems which do not lend themselves to easy solutions, and for which the wrong "solutions" might further complicate the problems.

Increased self-reliance will be important to Nigeria's development in the 21st century,

including a reliance on local solutions and (most importantly) greater domestic resource mobilisation. One of the most devastating impacts of oil dependence was the lack of attention to raising revenue internally through taxation. Most of the state governments today rely primarily on the federation account for funding¹⁹³. At all levels of governance, there is a need for increased mobilisation of domestic resources through taxes and levies. This is what will help Nigeria solve many of its perennial development challenges such as the inadequate infrastructure and provision of social services, including power, roads, potable water, quality health care and education. As illustrated by the scenarios, increased revenue mobilisation will enhance the capacity for service delivery, engender trust and potentially build a virtuous circle for development. However, this is dependent on engaging the citizenry and avoiding short cuts to obtain revenue that could drive the nation into scenarios that are untenable in the long term.

In this world of constant and rapid change, nations and their policy makers need to gear up their systems and processes to be able to adapt quickly. Early warning systems will be crucial to anticipate and make sense of emerging shifts. The golden rule will be: expect the unexpected. Such openness is critical if policy makers are to assess what can/cannot be controlled and to think deeply about unintended consequences. If the scenarios illustrate one thing, it is that policy makers are tempted to seek easy solutions to complex problems, but that the results of perceived short-term benefits are quickly wiped out by serious long-term consequences.

Nigeria's inherent strengths as a nation mean it has many opportunities. Nigeria's size - in terms of its geography, population, large and highly skilled diaspora, creativity and ideas, growing soft power and potential hard power - makes the country the natural leader for the African continent. The emerging digital world combined with Nigeria's strengths in culture, arts, fashion and music has led to the idea that Nigeria is not just a geographic space. Nigeria is also fast becoming a virtual space which can be exploited to build a 'global nation' in which belonging is not necessarily linked to being physically present in Nigeria or connected to Nigeria through 'genes'. One can be connected through affinity, interests and the dream of being part of a larger idea and identity. But for this to fully materialise the country cannot let the demographic boom become a bust. A Nigeria must materialise that is more than a mere collection of disparate ethnic groups. This will require building a grand narrative and consensus about what it means to be Nigerian.



FIVE FOCUS AREAS FOR BUILDING FORWARD

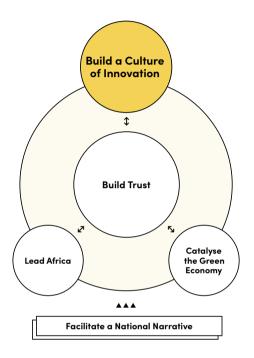
Given this analysis of the present context and possible futures, we have identified five major policy paths we believe the country needs to create the desired future. With so many important issues to deal with, it is critical to set priorities. We make five sets of recommendations. First, we propose three main policy agendas which we describe as: Build a Culture of Innovation, Catalyse the Green Economy, and Lead Africa. To underpin these policy directions, and indeed any progress in the country, Nigeria must Build Trust. If it fails to do this, every other vision will be almost impossible to achieve. But this is bigger than just the government. The whole of society needs to be engaged in building a new Nigeria, so we propose the Building of a Grand Narrative that will serve as basis for a social compact on who we are as a nation, our values, and a set of national commitments. These five elements - three policy directions, a radical reworking of governance and a process proposal - are summarised in the diagram below.

05 Build a Culture of Innovation

With a growing and increasingly youthful population, Nigeria will not only have to create more jobs over the next 30 years, but those jobs will have to be higher paying and higher productivity. In our view, in order to create such jobs, Nigeria's economy will have to become increasingly innovation-based.

Innovation is the key driver of long-term economic growth across all economies^{194, 195}. It is particularly critical to the economic growth of Nigeria and other African late-comer economies¹⁹⁶. There are numerous national examples of innovation-led economic development, including the United States, the Nordic countries, Israel, Japan, the East Asian Tigers, and most recently (and impressively), China.

Despite the crucial role of innovation to Nigeria's economic future, the country's de facto national system of innovation (NSI) suffers several major manifestations of innovation deficit¹⁹⁷. According to the 2020 edition of the Global Innovation Index (GII), Nigeria ranks 117th out of 131 economies and performs below expectations for its level of development198. A comparative assessment of African innovation systems described Nigeria as having "a relatively weak NSI characterised by poor interaction between universities, R&D institutions and manufacturing firms"199, and this would appear to still be the case over a decade later. There is therefore considerable scope to improve upon Nigeria's innovation deficit by building a much stronger national innovation system and culture. While strengthening the innovation system will require structural interventions that are medium- to long-term in nature in order to shift paradigms and ways of working, there are also shorter-term interventions which could help build awareness and momentum to sustain the effort.



BUILD A CULTURE OF INNOVATION

Culture has a significant influence on innovation both at national and organisational levels²⁰⁰. Different nations have adopted various approaches to foster innovation-driven economies, reflecting different contexts, path dependencies and innovation cultures — see Table 2.

The culture of a group can be defined as the accumulated shared learning of that group as it solves its problems of external adaptation and internal integration. It is important to get beneath the surface-level expressions of culture into the more fundamental societal values and foundations which must be engaged in order to drive any sustained system transformations. Leaders play a crucial role in influencing culture; indeed, leadership has been described as "the management of culture"²⁰¹.

Professor Thandika Mkandawire's Seven I's²⁰² in Table 3 offer a useful structuring device for delving into the system drivers of Nigeria's socio-economic culture, and identifying areas for leverage in driving towards a unique and robust Nigerian culture of innovation.

TABLE 2 ▶

Comparative analysis of countries that have used innovation to accelerate their economies

- Innovation culture /system/strategy
- Examples

USA

- Not centrally coordinated, but nevertheless characterised by strong government/academia/ industry linkages
- DARPA (R&D) / Tesla (key role of government subsidies) / Startup ecosystem

Israel

- ▶ "Start-up nation"
- Cybersecurity /Agritech / Watertech

Finland

- Human capital-led and characterised by policy and institutional capacity and adaptability
- Nokia (evolution from paper mill to high-tech firm) / Public expenditure on education (high quantity + high quality)

Japan

- Government-led industrial policy (MITI) and post-World War II keiretsu business groups
- Sumitomo (horizontal/financial keiretsu) / Toyota (vertical/industrial keiretsu)

Singapore

- Transition from low-cost manufacturing to knowledge-based economy
- High-quality, high-performance civil service (public sector innovation) / Higher education centred innovation ecosystems (e.g., NUS Enterprise)

South Korea

- Export-led, education-based
- Samsung / Hyundai

China

- Combination of government-led (5-year plans) and market-based (private and state-owned firms)
- Huawei (ICT) / Goldwind (wind turbines)

Sources: Multiple, including Taylor (2016) and Lee (2019)^{203, 204}.

Building a Culture of Innovation

TABLE 3 • The "Seven I's" (+1) of regional integration applied to innovation culture in Nigeria

"I" DIMENSION	DESCRIPTION	QUESTIONS FOR NIGERIA
Initial conditions	Size and Underdevelopment	 How will Nigeria capitalise upon its demographic size, including diaspora? How will Nigeria's economic potential interface with its relative poverty and inequality?
Ideas	Moral and political purpose, expressed through ideology. E.g. inclusion, Pan-Africanism, etc.	What are the big, purposeful ideas that will drive Nigerian innovation?
Individuals	Influential and inspiring / disruptive individuals	Who are the key champions who can foster innovation culture?
Institutions	Shared vision, collectivism, legitimacy	How will Nigeria build innovation-enabling institutions?
Interests	Legitimate national interests balanced with solidarity, Business interests, State interests	How can these interests be articulated, aligned and beneficially steered?
Industrialisation	Policies and politics of industrialisation at a national level, and linkages to economic performance and global relations	What is Nigeria's industrial policy and how does it interrelate with efforts towards NSI?
International context	Global and regional positioning	► How will Nigeria position itself globally and regionally in relation to other innovation-driven economies?
Idiocy	In Mkandawire's own words: "you would be surprised what a role idiots and ignorance play in debates on integration"	► What "idiots" and "ignorance" could frustrate Nigeria's innovation-driven efforts?

Source: Adapted from Mkandawire (2014)²⁰⁵.

OECD public sector innovation agenda for action

DIMENSION 1: People matter

TABLE

Governments must invest in the capacity of civil servants as the catalysts of innovation. This includes building the culture, incentives and norms to facilitate new ways of working.

DIMENSION 3: Working together solves problems

Governments must advance new organisational structures and leverage partnerships to enhance approaches and tools, share risks and harness available information and resources for innovation.

Source: OECD (2015)²⁰⁶.

STRATEGIC GOALS

Nigeria²⁰⁷, like a number of other African countries including South Africa²⁰⁸, possesses several key elements of a NSI, but it does not function optimally. Why? In our view despite the presence of promising "innovation hardware" — such as infrastructure and activities — it is the "innovation software", namely a functioning national culture of innovation, which is most lacking in Nigeria.

Government is the key enabler of a successful national culture of innovation because of its vital integrative role across the knowledge, innovation, and business ecosystems²⁰⁹. Its role involves facilitating the right cultural practices — customs, conventions, routines²¹⁰ — required to stimulate innovation.

The OECD's proposed four-point call to action for state-enabled innovation²¹¹, (Table 4, above) can be adapted to define Nigeria's strategic innovation goals:

DIMENSION 2: Knowledge is power

Governments must facilitate the free flow of information, data and knowledge across the public sector and use it to respond creatively to new challenges and opportunities.

DIMENSION 4: Rules and process to support, not hinder

Governments must ensure that internal rules and processes are balanced in their capacity to mitigate risks while protecting resources and enabling innovation.

- Nigeria should support an innovation-driven development agenda that will be people-centred, i.e., the innovation will depend upon the effort and skill of the people, and we will support the people.
- We will be evidence-based and will also invite and enable public access and use of public data so that the overall system can creatively use evidence and data to support innovation and development efforts.
- We, the government, cannot do it on our own. We will collaborate with partners locally and internationally (businesses, civic structures, and knowledge communities) who can bring their resources to bear.
- We will not be a rigid bureaucracy; we want our institutions to reflect a culture of agility, responsiveness, proactivity and intensity. But we will also put measures in place to ensure that we are being responsible and held accountable.

Building a Culture of Innovation

A fifth goal may be added on urgency: "We are learning by doing, and planning while learning". This implies a break with conventional bureaucratic approaches which linearly sequences planning, action and evaluation. As well as prioritising action, we need to acknowledge the interconnection with a longer-term agenda and unfolding insights.

The table on next page also looks at barriers, levers and guiding questions for each of the goals, adapted from OECD studies on a range of countries combined with the consideration of urgent actions.

THE CRUCIAL ROLE OF THE STATE

In order for governments to support the transformation of systems in ways that drive agreed individual and social outcomes in contexts of complex socio-technical changes, "governments must not only be innovative; they must also create the right conditions for innovation within and across systems" 212. This does not make government the most or only important role-player, but the evidence from elsewhere is consistently that government is a crucial actor in fostering innovation on a systemic level and in order to achieve transformative outcomes 213. This is illustrated with the example of China's government in Box 3.

The China case affirms the role of the state in fostering an effective system of innovation, including the need for a state to: "construct an institutional and policy environment conducive to innovation, including a venture capital management system and an intellectual property system, which are necessary both to increase the propensity of domestic firms to innovate and to maintain China's attractiveness for knowledge intensive foreign direct investment. [The state] should play a leading role in the areas marked by a prevalence of market and systemic failures through direct involvement in technology innovation activities and the provision of public goods and common basic technology. Finally, it should guide the science and technology development of some specific industries following the principle of 'be aware that there are things that must be done and things that must not be done', as well as make innovation resources available in line with the interests of specific industries through making good use of various financial means."214.

The Nigerian state should play a central role in the definition of the country's innovation agenda, adopting strategies that can take cognizance of the strengths and weaknesses of the main system actors, government itself included. A phased approach may be required.

RECOMMENDATION 1.1 Build a National System of Innovation

A National System of Innovation (NSI) is "the network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies"²¹⁵. For it to be effective it needs three core pillars: innovation capacities, innovation policy and economic development²¹⁶.

A successful NSI deliberately levers institutional relationships to produce and use innovation, including: educational policy; higher education investment; research institutes; research infrastructure; technological infrastructure; technological capacity; government policy; promotion of strategic industries²¹⁷.

NSIs have a positive effect on economic growth and have helped build "institutions devoted to the production of knowledge, public policies and programs for building technological capacities in enterprises"²¹⁸.

However, one assessment of the poor state of African innovation NSIs over two decades ago could as well have been written today: "NSI in SSA countries are characterized by low investment in science and technology, a concentration of investment in public large enterprises concentrated in big cities and an exclusion of the large mass of population to the formal economy. It is clear that these economies must adopt new indicators to evaluate skills and competencies acquired in traditional sectors, the ability to promote inter-linkages between actors in their process of adopting and absorbing new technologies ... [Even where countries] have a NSI, differences remain in their efficiency of resource production and their distribution power of knowledge. Innovation in less developed countries is not about the creation of new technologies or processes but about the strategic promotion of resource

Dimension: Goal

Targeted barriers

Government levers & [Recommendation]

Questions for policy makers

People matter:

TABLE

"A people-driven, statesupported culture of innovation for development"

- Lack of reward and motivation to innovate.
- Skills not adapted to enable innovation.
- Hierarchy and command-and-control paradigm.
- Employee risk aversion.

[NATIONAL HUMAN RESOURCE FRAMEWORK] Human resource management policies (recruitment, training and performance).

- How is your civil service system developing civil servants' skills for innovation?
- What incentives are available for innovators?
- ls your organisational setting designed to offer opportunities to innovate?

Knowledge is power:

"A knowledge-based, data-driven innovation system"

- Lack of capacity to analyse, share and use internal and external information, and transform it into organisational knowledge to support decisions.
- Limited predictive capacity may lead to repetition of mistakes.

[NATIONAL DATA & INFORMATION FRAMEWORK]
Knowledge management system and policies; data sourcing, processing, analysis and sharing; information sharing system and platforms.

How is your organisation managing information in support of innovation?

Working together solves problems:

"A transversal, partnershipdriven institutional approach to solve common problems"

- ► No lateral thinking.
- Silos blocking collaboration across organisations.
- Lack of clear organisational mandate to support innovation.
- Lack of innovation champions.

[DEDICATED NSI DRIVER & INTEGRATOR]

Government structures to support innovation (dedicated teams). Innovation steering committee or groups.

- What are your priorities for innovation?
- Is innovation supported by a specific strategy?
- Do you have a dedicated unit/ organisation/ team for innovation?
- ▶ What function does it perform?
- ➤ Who "owns" it?
- How does it work with other organisations?

Rules and processes to support not hinder:

"Dynamism with accountability"

 Specific rules and procedures are blocking innovation (e.g., misperception and/or misapplication of rules by public servants).

[INNOVATION FUNDING MODEL]
[AGILE MERL FRAMEWORK]
New processes (prototyping and co-creation) to help deal with risk

management.
Resource allocation and management to support policy goals.
Funds for nurturing innovation.

- ► How far are rules and procedures viewed as a barrier to innovation?
- ► How are you assessing how rules and regulation hinder innovation?
- Are there genuine barriers (and to what extent is it perception)?
- What are you doing to change perceptions?
- Do you have funds to support innovative pilots?
- ls resource allocation optimised to support policy goals?
- ► How do you enable resource flexibility?
- Are the preconditions for success in place?
- Are you using processes that can help to manage risk (e.g., prototyping and co-creation)?
- ► Has the full architecture of the solution been defined?
- How does it work with other organisations?

Action is Urgent: "Learning by doing, planning while learning"

- State inertia makes it difficult to do new things
- Lack of internal and external (public) confidence in state actions
- Changes in administration deter or fail to sustain long-range interventions

PRAGMATIC INNOVATION PROGRAMMING & QUICK WIN PROJECTS

Balance long term systems changes with shorter-term tactical interventions to create and sustain momentum.

- What are the strategically chosen "quick win" initiatives that Nigeria can embark upon immediately?
- Do you have funds to support innovative pilots?
 Is resource allocation optimised to
- support policy goals?How do you enable resource flexibility?
- Are the preconditions for success in place?
- Are you using processes that can help to manage risk (e.g., prototyping and co-creation)?
- ► Has the full architecture of the solution been defined?
- How does it work with other organisations?

Building a Culture of Innovation

National innovation strategy | China

Key phases of China's evolving NSI have been described as:

First phase (1985–1992):

вох

The reform of the funding system and governance relaxation on scientific research institutions

Second phase (1992-1998):

Government support to basic research

Third phase (1998-2010s):

The policy of 'relying on science and technology to rejuvenate the nation' and build a national innovative system.

This last stage included:

- 'Relying on Science and Technology to Rejuvenate the Nation' being made a national strategy:
 Administrative system reform of 242 scientific research institutions attached to 10 state-level bureaus managed by the State Economic and Trade Commission at the end of 1998 in order to reduce the number of independent state-level research institutions, encourage enterprises to set up their own applied research institutions and transform enterprises into the main actors of technology innovation. The business sector has consequently become the dominant R&D actor (2/3 of funding).
- Vigorous promotion of the commercialisation of scientific and technological achievements capitalisation, reward, tax incentives, mobility:
 Series of technological innovation policies introduced, including: 'Some Provisions on Mechanism of Venture Capital Construction' (1999); 'Innovation Funds for

Small and Medium-sized Technology-based Firms' (1999); 'Technology Innovation Project' in order to boost both enterprises' and regional innovation; innovation policies to improve industries' innovation capability, the most important of which was 'Policies on Encouraging Development of Software Industry and IC [Integrated Circuit] Industry.

During this period, policy also marked that China's science and technology development strategy would transform from imitation-based innovation into indigenous innovation

Key lessons from China's experience include:

- The government plays a critical role in the NSI.
- The establishment and implementation of key national science and technology programmes and projects has promoted integration and cooperation among enterprises, scientific research institutions and universities, which became main actors of China's NSI.
- Chinese enterprises continued lacking innovation capability for a while, and the planned economic system developed in the past was a serious impediment to the innovation of enterprises. It was therefore critical for China to establish a modern system and strengthen enterprises' innovation capability.
- The incentive system of innovation and the service system of intermediary organisations are imperfect, and many key elements did not for a long time develop an appropriate innovation structure and network.

Source: Ly Ping (2013)²¹⁹.

networking for adoption and absorption of available technologies. In this perspective, science and technological policies analysed under the concept of NSI will promote the development of local centres of knowledge through decentralisation, the repatriation of experts and the inclusion of the informal economy in strategies of technological capability building. In other words, SSA government policies must be re-oriented to correct systemic weaknesses of their specific NSIs"²²⁰.

Despite the lack of a well-functioning NSI in Nigeria, we acknowledge efforts made including the 2012 launch of a Science, Technology and Innovation policy document which made reference to establishment of an NSI and a National Research and Innovation Council (NRIC) chaired by the President as important enablers of economic development²²¹. Things moved slowly with the NRIC being inaugurated in 2014, but only holding its first meeting in 2016.

Extra efforts are needed by emerging economies to promote the development of an NSI so as to explore the potential growth-inducing effects of a well-functioning NSI²²². There are important challenges to achieving effective NSIs in the global South:

- managing learning processes that can connect externally while also considering diverse (including endogenous) knowledge systems;
- centrality of sound innovation policies for growth and technological competitiveness and therefore for North-South catch-up strategies, which requires policy learning and policy experimentation capabilities; and
- contextualisation in terms of how innovation (results, learning capacities, or capability building) can be achieved in a complex context where "NSIs are constructed between technology and informal learning, between domestic networks and international networks, between growth and development, between scientific actors and civil society, between productive capital and social capital, between top down interests and bottom up perspectives."²²³

South Africa, for example, has learned many lessons and is currently embarking upon a new strategy to address issues that Nigeria should watch out for (see Box 4). Nigeria should establish an explicit NSI, learning from the experiences, both positive and negative, of others, particularly those of comparable latecomer economies that are constantly evolving.

RECOMMENDATION 1.2 Build Anticipatory Governance Capability

Anticipatory governance is a "whole-of-government process incorporating foresight at every level of governance, visualized and structured as a complex process."²²⁴ In the so-called "VUCA" (volatility, uncertainty, complexity and ambiguity) times that have characterised the early part of the 21st century, it has become even more essential to have processes in place to enable anticipatory governance, ensuring that policy is not short-termist or blinkered.

Governments must have in place dynamic and integrated systems of strategic foresight, intervention and review to support effective policymaking. The US, even as a federal system, demonstrates how a synthetic complex of anticipatory systems is evident in several sectors, and indeed the country was the innovation leader globally through 20th century. Other international exemplars for formal anticipatory systems in countries with strong innovation systems include Singapore and Finland (see Box 5).²²⁵

Nigeria should establish a strong anticipatory framework institutionally where it can be used to support long-range governance, decision making and review.

Building a Culture of Innovation

4 • Building National Systems of Innovation (NSI) | South Africa

South Africa's NSI may be considered to be the basis of the National Development Plan 2030, and then a science, technology and innovation (STI) policy package consisting of the 1996 White Paper on Science and Technology; 2002 National Research and Development Strategy and Ten-Year Innovation Plan (2008–2018); and the latest 2019 White Paper on Science, Technology and Innovation and Decadal Plan.

These have been used as a framework for establishment of an NSI based on a strong science and technology system; to promote STI as critical to long-term sustainable and inclusive socioeconomic development; and aimed at reducing poverty, unemployment and inequality.

The first STI decadal plan (2008–2018) was mainly based upon:

- Strategic priorities driven through Grand Challenges (Bioeconomy, Human & social science, Global change, Space, Energy Science)
- Human Capital through Centres of excellence, national research chairs initiative, professional development programme
- Knowledge infrastructure Science councils, state-owned enterprises, global projects
- International cooperation regional and continental partnership; and
- Investment plan based on strategic priorities

In South Africa's 2019 STI strategy, the following shifts are specified:

- Improved coherence, coordination and strategic M&E of policy and institutional landscape
- Focus on "enabling environment" for innovation
 e.g., through innovation compact approach, scaling from SMEs to SOEs, leveraging government procurement, and developing local innovation ecosystems.
- Ensure an open, responsive and diverse knowledge system

- Recommits the government to increasing the levels of R&D investment in the economy to 1.5% of gross expenditure (GERD) and STI investment framework will be institutionalised
- Improve funding efficiencies through the harmonisation of existing funding instruments, including Technology Innovation Agency (TIA), the National Intellectual Property Management Office (NIPMO), parts of the Industrial Development Corporation (IDC), and parts of the National Research Foundation (NRF).
- Extending beyond measurement of inputs (e.g., investment in STI) and outputs (e.g. increases in graduates, publications and patents) to emphasise also outcomes (e.g., improved partnerships between NSI actors and increased policy coherence, yielding improved innovation performance).

The new strategy has also informed some sector specific strategic NSI responses, such as decisions to:

- Mitigate against under-investment in technology & innovation in identified niche and strategic sectors of SA economy so as to improve their competitiveness, or
- Encourage private sector to co-invest with government in RDI activities that address competitiveness and sustainability of participating sectors.

And although the country rates the NSI for having achieved some of its milestones, the National Advisory Council on Innovation (NACI) indicates that the South African NSI's most significant weaknesses remain in four key areas:

- effective inter-departmental coordination leading to greater policy cohesion and the achievement of a culture of innovation within Government;
- human resource development;
- the promotion of an information society; and
- the use of government incentives for Innovation.

Sources: Multiple, mainly DST (2019)²²⁶

вох

Singapore - Singapore has long used a combination of strategic foresight, ecosystem thinking, and strategic risk management as part of its famed public policy machinery. When starting up new national initiatives, there is often much thought into thinking about how it might be sustained by itself without government intervention. There has been an evolving institutional framework to support the anticipatory system. In 1995, the Government set up the Scenario Planning Office in the Prime Minister's Office, which was renamed the Strategic Policy Office (SPO) in 2003 to reflect the strengthened links between foresight work and strategy formulation. In 2009, the Centre for Strategic Futures (CSF) was established as a futures think tank within the SPO to focus on blindspot areas, pursue open-ended long-term futures research, and experiment with new foresight methodologies. In 2015, CSF became part of the new Strategy Group in the Prime Minister's Office, which was set up to focus on whole-of-government strategic planning and prioritisation, whole-of-government coordination and development and to incubate and catalyse new capabilities in the Singapore Public Service. Other related developments in-between included the 2007 establishment of Risk Assessment and Horizon Scanning (RAHS) system, a strategic risk assessment and analysis tool, which aims to provide early alerts on potential threats to national security by developing a network that links various independent government agencies.

Finland – Established in 1993, Finland has a Committee for the Future as an established, standing committee in the Parliament of Finland. Consisting of 17 Members of the Finnish Parliament, the Committee serves as a Think Tank for futures, science and technology policy in Finland and reports to the Prime Minister. The Committee's mission is to generate dialogue with the government on major future problems and opportunities. A key task of the Committee for the Future is to prepare the Parliament's response (Parliament's Future Report) to the Government's Report on the Future (which is each administration's report on long-term future prospects and the Government's targets). In this way the Finnish Government and Parliament can recognize important political themes at such an early stage that different alternatives and policy lines are still completely open and under development.

Sources: Multiple, including Singapore Centre for Strategic Futures (c 2021)²²⁷, Scalable Analysis (2020)²²⁸, Parliament of Finland (c 2021)²²⁹.

RECOMMENDATION 1.3 Invest in key sectors

Since independence in 1965, Singapore has developed from a low-cost, manufacturing-based economy to a diversified, knowledge-based economy. In the process, it has made several transitions from existing to new and emerging industries.

Singapore offers the following related lessons and takeaways in terms of enabling factors^{230, 231, 232}:

- Supportive legislative, regulatory and policy institutions, e.g., property rights and incentives
- Sector targeting public sector prioritisation and investment in specific high-potential sectors, such as bio-medical sciences
- Infrastructure basic infrastructure (e.g., energy and telecommunications) and advanced infrastructure (e.g., AI [Artificial Intelligence] and next-generation communications networks like 5G).

This is relevant to Nigeria's need to transition from a predominantly oil-based economy to a diversified economy. Nigeria can target new sectors such as the strategically imperative green and circular economy industries, as well as promising emerging sectors such as technology (e.g., fintech), the creative/cultural industries (e.g., Nollywood, music and fashion), vehicle manufacturing (e.g., IVM and Nord) and agriculture (e.g., Babban Gona).

Nigeria should target certain key sectors that have the potential to drive innovation and create jobs. For example, developing the green and circular economy industries is of vital importance to Nigeria due to the long-term outlook of its oil industry, the country's growing energy needs and the geostrategic importance of responding to climate change. The government should consider creating a \$5 billion multistage green and circular economy venture capital fund targeted at different sizes and stages of companies in the sector, from start-ups to large firms. The fund should also provide different investment mechanisms and performance metrics to cater for the different types of organisations.

Building a Culture of Innovation

In close consultation with key sector/industry stakeholders, Nigeria's government should pursue an aggressive policy of innovation-focused deregulation, by identifying current laws and regulations that are impeding innovation, and that can be immediately repealed or reformed in order to stimulate innovation. For example, Nigeria's current laws and regulations preclude crowdfunding-based venture capital because private firms are prohibited from receiving money from the public and having more than 50 shareholders is difficult. Furthermore, anecdotally, Nigeria's creative/cultural industries face various legal and regulatory impediments, notwithstanding the apparent success of the sector. Finally, the need to strengthen Nigeria's intellectual property rights (IPR) laws in order to safeguard the creative products of the sector is well documented.

The government should invest in both non-physical and physical innovation infrastructure. For example, enabling frameworks to support AI-based innovation and 5G/multi-access edge computing (MEC) applications, which are important because AI is a general-purpose technology (GPT) whose ramifications extend to all sectors of Nigeria's society and economy, and 5G/MEC is a key enabler of next-generation Internet of Things (IoT) services. Such disruptive new technologies provide the best opportunity for latecomer economies like Nigeria to approach or exceed the global innovation frontier²³³.

Here the risk to be avoided is focusing on too many or too few sectors, choosing the wrong focal sectors, and transitioning into or out of new or existing sectors too quickly or too slowly. This risk can be mitigated by maintaining clear selection, progression and transition objectives and criteria.

RECOMMENDATION 1.4 Enable digital transformation with regulation

A country's regulatory policies can have large impacts on the digital economy and the digital divide. Several studies demonstrate that "countries that require formal regulatory approval for Internet Service Providers (ISPs) have fewer Internet users and Internet hosts than countries that do not require such approval" and "countries that regulate ISP final-user prices have higher prices than countries that do not have such regulations" ²³⁴.

What kind of regulation are we talking about? On the one hand, there is content regulation. Some countries, like Singapore and China, adopt a more restrictive perspective, while others, like the United States and European countries, are more permissive. There are also those that guarantee more space for their own culture, like Canada and France. The best approach is the one that fits a country's culture. As threats to national security, minorities, human dignity, personal and corporate reputation and individual privacy become more frequent, there is an upward trend in government involvement in content regulation.

On the other hand, there is regulation of the business environment. As a rule, regulation should foster competition as much as possible, but in some cases this also means cooperation among stakeholders. In the telecommunications sector, for example, a sole focus on enhancing competition may ironically endanger competitiveness if existing firms monopolize infrastructure and deny entrants access. To make competition viable, the government must guarantee that entrants can interconnect and pay for the use of already existing infrastructure.

The World Bank proposes four priority regulatory interventions in Nigeria²³⁵:

- Reducing or eliminating taxes on entry-level smartphones, tablets, or laptops will decrease their prices and allow more connectivity and internet demand.
- A regulation that allows fast and predictable concession of 'right-of-way' would help expand infrastructure coverage.
- Compensating landowners for use of property would reduce equipment vandalism and theft, decreasing operational costs.
- Enforcing fixed national rates for laying fibre network (without state variation) would decrease the infrastructure risk and could boost investments.

In close consultation with key sector/industry
stakeholders, Nigeria's government should
pursue an aggressive policy of innovationfocused deregulation, by identifying current laws
and regulations that are impeding innovation...



Photo by CDC on Unsplash

Building a Culture of Innovation

6 ► Dynamic regulation

The case in Brazil

The digital economy is dynamic, with companies being created and disappearing regularly. To enable this dynamic, the rules for formalisation and extinction of companies must be adapted. A progressive regime allows companies to start with low costs. As it progresses taxes and other demands increase. Brazil is a good example. The Individual Microentrepreneur Program allows any person in certain economic areas to formalise their business through the internet, paying around US\$10 per month of taxes. When those companies achieve an annual income of US\$15,000, they pay up to 6% of their monthly income and have some new demands such as new licences. However, they can still count on several benefits such as a reduced tax rate. If the company's annual income surpasses US\$800,000, the company will automatically change category again and now it may choose among several more complex fiscal structures. The special benefits finish and they have full demand for documentation and accountant services. This structure allows small entrepreneurs to be exposed to less risk, while still contributing to the country's development.

The government should start an open consultation with the private sector to define which laws and regulations should be created, changed or eliminated and why. Once all data is compiled, government will be able to decide what, how and where to change. The publication of the findings would increase transparency and accountability. If possible the government should test the impact of the measures within a smaller context before applying them nationally.

RECOMMENDATION 1.5 Build a Robust Monitoring & Evaluation (MERL) System

One of the key lessons learned the world over is the critical importance of having a robust qualitative and quantitative system for monitoring and evaluation that is holistic and endogenous²³⁶. Reporting is also crucial for accountability and transparency. It enables lessons to be learned from experience, which is crucial to affirm or inform strategy. There are critical lessons to be learned from examples of failures where red flags could have been picked up earlier within the initiatives, but which also begin to suggest key indicators to look out for in the design of any future innovation programmes to avoid wasting scarce time and resources.

Once again, South Africa provides useful insights. In both cases outlined below (Box 7) the projects got off the ground with great aplomb, but ultimately did not have full stakeholder buy-in, and were accused of being too ambitious. A key takeaway from these cases is that stakeholder buy-in and management is of crucial importance, especially of investors, this should be included in key metrics for monitoring and learning.

Nigeria should establish a robust Monitoring, Evaluation, Reporting & Learning system to give feedback in real time on initiatives and increase accountability.

вох

The abandoned multi-billion Rand Pebble Bed Modular Reactor (PBMR), South Africa

In 2010, South Africa abandoned what would have been its first 4th Generation unit, the Pebble Bed Modular Reactor (PBMR) nuclear project. After a massive injection of public resources (about a billion US dollars) and many irregularities, the project was abandoned by the central government due to lack of investors and authorisation issues with the national regulator. The project had little local political or social buy-in, largely foreign knowledge holders, and there was little accountability for the massive wasted resources. As South Africa forges ahead into the Square Kilometre Array (SKA) initiative, the intergovernmental radio telescope project being planned to be built in Australia and South Africa at a public price tag of over a billion dollars again, it may be instructive to look back at lessons from the 2010 project.

The Joule – The rise and fall of (South) Africa's first electric car

In a similar case, this time in the private sector, The Joule Electric Vehicle was a "born electric" 5-seater passenger car with a totally new vehicle design incorporating a locally developed battery, motor and software technologies. After being initiated in 2005, the start-up company, Optimal Energy, that was driving the project seemed to flourish until it was terminated in 2012 due to lack of funding. This has lessons on complicated issues around the innovation chasm created by a misalignment of institutions, interests, expectations, funding and communication to enable effective commercialisation.

Sources: NEI Magazine (2017)²³⁷; Groenewald (2010)²³⁸; Swart (2015)²³⁹.

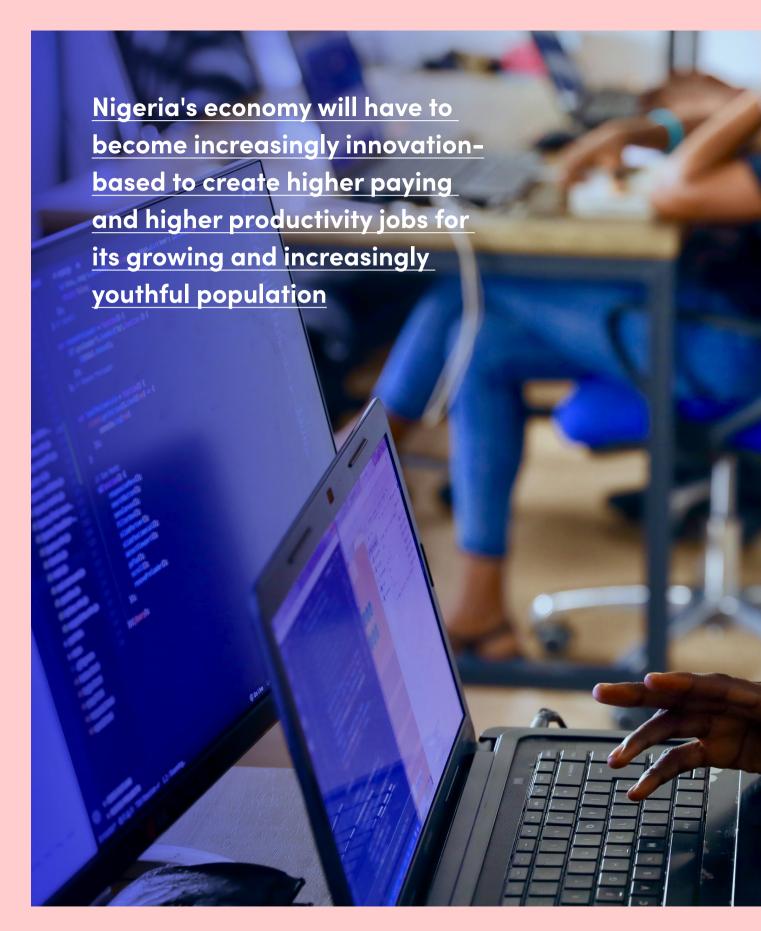


Photo by Lagos Techie on Unsplash



06 Catalyse the Green Economy

Questions are sometimes raised that a green transformation may hinder economic growth and thus poverty reduction. The green economy is still a fairly new approach, which means data on the results of green growth policies is scarce and sometimes conflicting, so concerns should be considered carefully and the government should adopt a systematic policy learning approach that includes corrective action²⁴⁰.

But governments, international organisations, and businesses around the globe are not pushing for green growth only simply because of a genuine concern for the severe long-term consequences of overusing the world's natural resources. The green economy is also critical to spurring new business opportunities, creating jobs for all kinds of workers, and saving businesses and governments money via the efficient use of energy and materials.

The green economy could represent as much as 10% of the global market value by 2030²⁴¹ but the green market can still be classified as young which means many business areas are still wide open, with no identifiable leaders.

Build a Culture of Innovation

Build Trust

Catalyse the Green Economy

AAA

Facilitate a National Narrative

As competition is still low, middle-income countries such as Nigeria can harness their human capital and growing green international financing (public and private) to foster locally grown innovations.

In China, for example, spending in renewable energy already generates nearly 70% more jobs than investing in fossil fuel²⁴², creating opportunities for both low and high skills workers. In Nigeria, a joint UNDP-ILO green jobs assessment estimates that policies to increase power generation could generate around 12 million net additional jobs over the period 2020 up to 2035, while initiatives focused on smart climate agricultural production systems have the potential to add some 3 million net jobs across the economy within the same timeframe. It should

be noted that the UNDP-ILO research shows that the Agriculture, Forestry and Fishery sector is the one with the most impact regarding net employment effect per dollar invested, as between 230 and 290 green job opportunities could be created per one million US dollars invested²⁴³.

Going green is in the national interest of Nigeria and it is a strategic choice that, if fully pursued, could allow Nigeria to exploit an emerging global trend in its own favour. This is particularly important in light of the declining appetite to finance investments in fossil fuel projects. It has also been shown that the increasing costs of environmental crises are already undermining growth²⁴⁴, and that greener production processes can be applied to all production chains and companies of all sizes to generate cost reductions, since less inputs are required to produce the same output. Eco-innovative companies of all sizes grow, on average, at a rate of 15% a year²⁴⁵ and can capture market share²⁴⁶ in previously monopolistic markets, especially with regulatory changes that reduce the barriers of entry to eco-entrepreneurs. Additionally, by facilitating formalising and providing special benefits to those micro, small, and medium enterprises (MSMEs) that adopt green processes and/or deliver green products and services, Nigeria can not only make its MSMEs and start-ups more efficient, but also increase their profits, commercial growth and even foreign market share - fostering what could be classified as a 'green growth from below' approach.

GREEN WEALTH CREATION

Wealth creation aligned with transiting to a green economy could range from large-scale solar installation to small-scale grassroots level projects across core sectors nationwide. On the global scale, the 2018 New Climate Economy report²⁴⁷ estimates that bold climate action could deliver at least US\$26 trillion in global economic benefits till 2030, which includes creating over 65 million new low-carbon jobs, avoiding over 700,000 premature deaths from air pollution, and generating \$2.8 trillion in government revenues through subsidy reform and carbon pricing alone. In food, land and ocean use alone, the World Economic Forum "Future of Nature and Business Report"²⁴⁸ registers that nature-positive solutions could create 191 million new jobs and \$3.6 trillion of additional revenue or cost savings by 2030. Additionally,

new business opportunities in sustainable food and land use systems across sub-Saharan Africa could total US\$320 billion each year by $2030.^{249}$ See Box 8 for some ideas.

A futuristic green Nigeria will not only be a Nigeria with sustainable transportation systems without ${\rm CO_2}$ -emitting vehicles on our roads and plastic waste taken off the streets as a result of an efficient recycling and waste management system. It will also be a country that will curb unemployment by creating green jobs for the future in a more diversified economy.

As Nigeria is expected to lose one-third of its oil and gas revenue under a low-carbon scenario²⁵³, the sooner the country decides to invest in green growth, the easier and more affordable the transition will be, and the easier it will be to take a leadership role both in international environmental negotiations and the business sector. A flourishing green economy would generate more efficient industries and provide prominence for Nigeria in Africa and the world, especially if Nigeria "goes big" and develops a comprehensive strategy based on technology, innovation, training, and on support to the formal and informal micro, small, and medium enterprises (MSMEs) as well as major industries.²⁵⁴ Additionally, the country could become Africa's supplier of solutions (technologies, equipment, and maintenance service) regarding both the un-commercialized green opportunities listed above and fair transition initiatives, such as those related to LPG commercialisation for electricity generation and clean cooking.

A circular bio-economy alone
presents a US\$7.7 trillion
opportunity for businesses
globally.²⁵⁵ In Nigeria, the green
economy is estimated to be able
to create \$250bn in investment
opportunities.²⁵⁶

Catalyse the Green Economy

8 Ideas for green wealth creation in Nigeria

Sustainable water transportation

Most boats run on dirty diesel fuel. Nigeria has a large coastline of over 800km which can be used to improve regional trade and transportation of goods and persons. The use of electric and solar powered boats could revolutionise all aspects of the Blue Economy. Although the use of solar energy in water transportation still depends on progress in the development of lighter, water resistant solar panels, and increasing battery storage capacity, some initiatives have shown its potential, such as the Kara Solar river transportation project for indigenous communities in Ecuador, the daily commuter ferry transportation run by the Kerala State Water Transport Department (SWTD) in India, and the eco-tourism boat used in the Chim National Park in Vietnam.

Paper Packaging

Today, the preferred packaging material in Nigeria is polythene and it is not ecofriendly. The Nigerian polyethylene market is expected to grow twice as fast as the country's GDP by 2023²⁵⁰. Paper is a biodegradable material and has the potential to compete with polythene if properly harnessed, as paper can be produced using recyclable paper materials. With a lot of retail businesses on the rise in Nigeria, this is a sector worth exploiting at a scaled capacity.

Green Building

With buildings emitting more energy-related carbon globally than the entire transport sector, experts say holistic adoption of green building standards in the housing industry would boost efficiency and lower construction costs²⁵¹. Additionally, investing in building efficiency, for example, creates almost 3 to 4 times as many jobs per \$1 million spent as investment in coal and gas²⁵².

Solar technology

Solar power can be used in agriculture where solar powered irrigation pumps can be used by farmers, while manufacturing industries leverage renewables to reduce the cost of purchasing fossil fuels to power their machines.

вох

By harnessing its dynamic youth, Nigeria can use the technological revolution to foster the design and adoption of affordable eco-efficient solutions that reduce costs and improve competitiveness. Entrepreneurs and researchers can also be fostered to create viable solutions to low productivity and environmental challenges that are already undermining growth worldwide, increasing the proportion of services and intangibles in the country's GDP.

CAN NIGERIA RISE TO THE CHALLENGE?

Can Nigeria rise to the challenge and become Africa's green powerhouse? To do so the country needs to create a comprehensive green growth agenda, steered by leaders with the authority to bring together all current government initiatives and the resources to make the necessary policy choices and investment, properly informed by accurate data on the country's reality and potentials. By providing incentives and support to MSMEs and its sizable informal sector, Nigeria can increase the job creation potential of the sector by promoting green entrepreneurship through eco-innovation and adoption of green and eco-efficient measures and processes. Also, fostering the larger Nigerian companies that are expanding into other African countries to drive the green economy by investing in eco-efficiency and eco-innovation could steer Nigeria to a position of leadership in the continent.

The effect of climate change in Nigeria cannot be over emphasized and needs immediate attention to adopt alternative and sustainable mitigation and adaptation measures. Nigeria is one of the highest emitters of GHG emissions in the African continent²⁵⁷. Positioning the country as a green economy leader in the continent will compel it to lead by example in terms of GHG reduction.

It will certainly be a substantial challenge, but if successful Nigeria will not be the first country to build competitive advantage in a new non-obvious sector. To the surprise of many experts around the world, South Korea became the world's top shipbuilder rising from a market share of 2% to around 40% in the last fifty years, mainly because of its government's ambitious vision and planning²⁵⁸.

Nigeria has what it takes to shift to a green economy: creative entrepreneurs, large private companies that are expanding in other African countries, natural resources, a sizable formal and informal MSME sector, previous and current policy experiences, the ability to lead Africa, and a great potential in renewable energy and circular economy. Green Energy is the future. It makes economic sense, and it is in the interest of Nigeria to grow wealth and create jobs while also saving the planet. It is a young and emerging market; so many areas are still wide open, with no obvious leaders yet. The question therefore is whether Nigeria is willing to make the necessary efforts to become a leader in the green economy sector globally.

All sectors of the Nigerian economy must be encouraged to embrace green practices in their day-to-day activities from industries to Ministries, Departments and Agencies (MDAs), to individual persons, in essence, the entire ecosystem. Advocacy will play a vital role to achieve this feat as education about climate change and its consequences should be embedded in school curriculums from an early age in order to achieve practical impacts. Materials to support this effort already exist. In 2020, the Nigeria Federal Ministry of Environment through the Department of Climate Change, developed "Climate Change Youth Action Manuals"259 for different age groups. In addition, a sustainable incentive model should be designed to encourage buyin into circular value chains and encourage responsible consumption through extended producer responsibility initiatives. Additionally, there must be a national strategy to incubate and grow companies in the green economy space.

RECOMMENDATION 2.1 Embed the Green Agenda in Economic Policy

The Green Economy is a viable route to an efficient alternative economy for Nigeria that is defined by its inclusiveness and sustainable elements. As a country, the abundant potential to transition into a green economy is enormous and very evident from renewable energy sources to waste conversion potentials in most parts of the country. The green economy projects and policy recommendations registered here seek to eradicate most of the macro and micro problems experienced in the country like unem-

Catalyse the Green Economy

ployment, food insecurity, flood and erosions, insecurity, health hazards and loss of biodiversity among other pressing challenges.

For the green transition to be a fair transition, the green agenda should be embedded within Nigeria's development agenda, respecting the principle of common but differentiated responsibilities and in line with Nigeria's need for an economic growth that accompanies and controls its current high population growth. As many technologies and concepts deriving from the green economy approach are still at their infancy or are unproven elsewhere, further research and discussion are required to provide evidence on cost-benefit and feasibility of each policy recommendation or any initiative in the area, especially those related to the un-commercialized green opportunities listed in previous sections of this document.

There are numerous unexplored sectors in Nigeria where the Green Economy initiatives can be adopted, from transportation, housing, food processing, to fashion, and in various manufacturing sectors. A green futuristic Nigeria holds the capacity to accommodate this transition due to its vibrant and diverse ecosystem, coupled with a youthful population of disruptive thinkers.

The execution of a future green economy in Nigeria will require the formulation of strategic agenda and policies tailored towards achieving the desired outcome in the long run. This has to be adopted in all identified sectors that drive the Nigerian economy. The innovation and entrepreneurial space needs to be better strengthened and empowered through investment in building a robust policy and institutional environments as well as in strategic research and development in order to attract domestic and international green investments, especially in the adoption and transition towards circular approaches in the Country.

A Green transition for Nigeria must entail a forward-thinking approach towards unlocking future opportunities in unexploited markets within the green and blue economies. Nigeria should explore innovative measures through research and development in untested waters in order to build a thought leadership position in climate innovation in

the African continent and beyond. The primary goal should be to strategically position Nigeria as an investment destination for disruptive green innovation and as an industry leader in knowledge, data gathering, project planning and execution as well as technology transfer in the climate and green space.

The goal of the government should be to position Nigeria as a dominant player in the global green space through the adoption of sustainable policies to achieve a seamless transition to a green economy. This will be made possible through the buy-in of all stakeholders from individuals to public and private organisations, media, academia, environmental enthusiasts, climate innovators and entrepreneurs, advocates, and impact/social investors etc. This synergy, if inclusively harnessed, will help in the development and application of laws and policies that define a functional and sustainable green economy.

A strategy to transform the Nigerian economy into a green economy can be split into five subject areas and into short-term, mid-term and long-term goals.

Green projects proposed to drive a smooth transition for a futuristic green economy for Nigeria include but are not limited to the following propositions:

RECOMMENDATION 2.2 Invest in Renewable Energy

A World Bank report states that about 80 million Nigerians living in 8,000 villages do not have access to electricity²⁶⁰. This gap can be closed through massive rural off-grid projects which the Nigerian government through the Rural Electrification Agency in partnership with private sector players, especially impact investors, are currently working on providing 5,000,000 off-grid solutions to communities that are not grid connected²⁶¹. This will expand energy access to 25 million people, create 250,000 new jobs in the energy sector and improve the value chain by facilitating the growth of the local manufacturing industry²⁶².

A green future for Nigeria will replace the country's dependence on petroleum products and fossil fuels with

A Green transition for Nigeria must entail a forward-thinking approach towards unlocking future opportunities in unexploited markets within the green and blue economies.





Photo by Michael Förtsch and Nareeta Martin on Unsplash

Catalyse the Green Economy

6 • Strategy to transform Nigeria into a green economy

Short Term Mid Term Long Term

COMMERCIAL POTENTIAL	Identify new key potential sectors in the green economy and explore the potential to unlock evolving opportunities.	Create projects and businesses around the identified sectors or activities in order to develop and sustain new value chains.	Potential businesses and projects built to have long lasting positive impact on the climate as well as create wealth and improve livelihoods over time.
ALTERNATIVE ENERGY	Leverage natural resources that can be easily harnessed and transformed to energy. In this case Solar since Nigeria has abundant sunlight with the tendency to create more jobs in the space.	Evaluate the economic viability of other energy sources to create diversity in the energy sector like wind and biomass.	Reliable off-grid alternatives and clean power sources form a key part of the country's energy matrix.
WEALTH CREATION	Identify and create projects that are impactful and inclusive to all.	Improve capacity and train individuals on requisite skills to be independent and employable.	Job creation, improved income and revenue streams created with viable value chains within the ecosystem.
GREEN	Explore immediate solutions to the most pressing climate change crises and green challenges across selected sectors in the economy.	Evaluate the outcomes and viability of these solutions in effectively making the desired impact.	Nigeria becoming an investment hub for green ideas and technology.
GREEN	Advocacy at grass root levels and schools across the country	Educate all sectors on going green with benefits to self and environment	A full transition to a green economy is achieved.

SubjectArea

TABLE

→ FACTS AND FIGURES

Potential value of green economy in the world.

- Global economic benefits of climate action:
 US 26 trillion till 2030
- Business opportunity of the shift to circular bioeconomy: US\$ 7.7 trillion by 2030
- Green economy investment opportunities in Nigeria:
 \$250 bn

renewable energy sources from thermal to wind fully harnessed to their maximum potential without experiencing power cuts or shortages. Oil companies must be held accountable for the amount of carbon emissions expended through gas flaring in their daily operations. The development and deployment of carbon sequestration could be localized in Nigeria to reduce the cost of importing the technology as a solution to be adopted by petroleum companies to cut their emissions by a large margin. In addition, there should be taxes on emissions to discourage status quo and rethink innovative ways of oil production without harming the environment. One such initiative launched in 2018 is The Flare Gas Regulations approved to help prevent waste and pollution as well as to facilitate the recovery and commercialisation of gas. The regulation introduces new payment regime for gas flaring which adopts the polluter pays principle²⁶³.

By 2050, a sizable portion of Nigerians should have access to electricity from off-grid sources with 70% of energy derived from renewables and 30% from the national grid. This could be achieved in 3 phases over a period of 30 years, on a 10-year evaluation period per phase. Solar and biomass energy projects could be explored aggressively and executed to create a sustainable future with direct effects on our national GDP. The overhead cost experienced in manufacturing sectors from diesel consumption and other fossil fuels will be reduced significantly alongside carbon emissions. Currently with an installed capacity of 12,400MW, Nigeria is only able to transmit less than half of this capacity²⁶⁴, leading to a national electricity supply deficit. The one viable way to bridge this deficit is to leverage the untapped abundance of renewable sources in the country.

RECOMMENDATION 2.3 Manage Waste Better

According to a recent study²⁶⁵, yearly waste generation in Nigeria has increased from 6,471 gigagrams (Gg) in 1959 to 26,600 Gg in 2015 and is expected to reach 36,250 Gg per year by 2030, while related methane emission for 2015 was 491 Gg and should reach 669 Gg in the same year.

That means the country is losing at least US\$365.04 million yearly in revenue from electricity generation, based on the 2015 estimates. Therefore, both for its impact on health and quality of life and its capacity to generate energy while reducing GHG emissions, waste reduction must be a collective responsibility for all Nigerians, from producers to consumers. The extended producer responsibility must be implemented by all micro, small, medium, and large producers across board. Key sectors must be responsible for creating reverse logistics in the collection of their waste like the beverage companies, sachet producing companies and companies that bag their products, eateries and food processing companies. Proper logistical arrangements as well as incentivized mechanisms and tools should be put in place to encourage circular adoptions. The benefits derived from waste (energy, fuel and recycled products) should be well articulated in order to sustain the narrative and the momentum.

RECOMMENDATION 2.4 Green the Value Chain

Currently, the global material footprint (the total amount of raw materials extracted to meet final consumption demands), is increasing at a faster rate than both population and economic output²⁶⁶. Unmitigated climate change alone is expected to undermine GDP growth, productivity, food, and fuel security, as well as working conditions²⁶⁷. In Nigeria, struggles over increasingly scarce land and water resources already endanger peace and stability in many states, particularly in the North East and North Central zones.

To become a global powerhouse in green economy, Nigeria needs a transition strategy that allows the country to exploit the benefits of the green economy without immediately giving up its fossil fuel resources or compromising its need for economic diversification. At the core of the transition strategy should be incentivising the private sector to drive the green economy via the development and adoption of eco-efficient processes and technologies, especially regarding food production and processing.

Catalyse the Green Economy

Eco-efficiency can reduce costs in production by saving resources and energy.

Yet, scarce knowledge of eco-efficiency practices and lack of expertise to adapt such practices to enterprises hinder the development and adoption of eco-efficiency in the private sector. In this area, the government should partner with existing business platforms, such as sector associations, to promote knowledge dissemination. Offering priority in public procurement for those companies with greater results in eco-efficiency would act as further incentive for improving resource efficiency in the private sector.

RECOMMENDATION 2.5 Provide Opportunities for Greener MSMEs

Both the micro, small, and medium enterprises, and the informal sector, which are a major source of income for vulnerable people in Nigeria²⁶⁸, have been disproportionately affected by the COVID-19 crisis due to the lockdowns. Nevertheless, because they are small and generally flexible, MSMEs are uniquely suited to adopt lower cost eco-efficient processes and drive innovation in the green economy if receiving the adequate support.

Providing adequate support means an environment where formalisation is quick, easy, and provides benefits that overcome the burden of compliance to more rules and regulations. Nigeria should analyse what specific kind of support is necessary for its MSMEs and informal sector, but it usually means priority access to public procurement, simplified tax regimes, social protection (including retirement and sick/maternity leave schemes), no/low interest credit (including access to the country's green bonds resources), and tailored training services that include R&D via public universities and/or private sector driven "green hubs". Simplified access to updated information on the benefits and support provided to MSMEs by the various government agencies is also key and could easily be offered via a mobile phone app developed and

managed in partnership with a local enterprise selected through a competitive process.

Moreover, a comprehensive policy is necessary to provide such benefits and information access to MSMEs, in both the formal and the informal sectors, while simplifying environmental regulations targeting the sector, and creating growing benefits in line with the "green content" of each business model. A "green growth from below" policy strategy, therefore, would prioritize MSMEs and the informal sector in government and private sector driven initiatives to build a powerful, competitive, and job intensive green economy.

Formalisation of MSMEs itself has the potential to provide better jobs for both low and high skills, as well as social security for millions of people when combining enterprise development promotion with access to credit and a more favourable regulatory environment²⁶⁹. It should be noted that formalisation means different things in different national and sub-national contexts and Nigeria should run a profound analysis of its reality before deciding who and how to formalise. Yet, it should be noted that when coupled with specific incentives for the adoption and development of greener processes, products, and services, formalisation can indeed boost more resilient sectors of the economy²⁷⁰, create more jobs²⁷¹ more quickly, harness international financing, and solve standing problems in Nigeria, such as low productivity and income in agriculture, waste management, and access to reliable electricity.

Green innovation can also increase profits, competitiveness, and market share for MSMEs, even in the short and medium terms, by providing both efficiency gains in the production process and access to the growing market for green products. Within the circular economy, Nigeria could support its MSMEs and informal sector to create a reuse and maintenance industry that would mitigate (if not solve) the waste problem in the country while creating better work at the bottom of the pyramid, as the recycling industry shows worldwide.

Research also shows that consumers in Africa and other emerging economies are 23–29% more likely to pay a premium for some sustainable products²⁷².

At the core of the transition strategy should be incentivising the private sector to drive the green economy via the development and adoption of eco-efficient processes and technologies.





Photo by Mike Enerio and CHUTTERSNAP on Unsplash

Catalyse the Green Economy

Also, eco-innovative companies of all sizes grow at a rate of 15% a year 273 on average and, with regulatory changes that reduce the barriers of entry to eco-entrepreneurs, can capture market share 274 in previously monopolistic markets.

Therefore, for Nigeria to become Africa's green powerhouse, its "green from below" strategy must foster the creation of production clusters linking MSMEs, cooperatives and production associations to anchor companies. Nigeria must not only make its MSMEs and start-ups more efficient, but also increase their profits, promote scaling-up and commercial growth, and access to foreign market. The government's role in such arrangements would be offering incentives, such as tax breaks, lower interest rate financing, and access to the public procurement, for bigger companies that include green MSMEs, cooperatives, and associations in their production chains. Such benefits should also be extended to organisations in the training, R&D, and consulting sectors that build and disseminate locally produced green solutions and products, so the country could transition from an imitator to a promoter in developing green growth strategies while scaling up its MSMEs.

RECOMMENDATION 2.6 Build a Green Institutional Framework

Building a green economy is an ambitious agenda for Nigeria. Building green growth that actually works for Nigeria will require leadership, long-term commitment, coordination, monitoring and evaluation systems, and resource mobilisation in both the domestic and international arenas, as well as in both the public and private sectors. It will require a shared vision, national goals, robust strategy and the mobilisation of all key stakeholders to work in concert to drive the implementation of the agenda. It will also require foresight capabilities and capacity for anticipatory governance of the green economy space given the rate of change and the need for Nigeria to be ahead of the pack in critical areas.

While the market will be crucial, there is also the need for government to help drive the agenda. It will require an in-

stitutional framework that is dedicated and able to drive the implementation. This could be an authority, agency, a super-ministry or a small unit within the Presidency that is able to lead the design and coordinate public policies in green growth, as well as help mobilize the private sector, the research institutes, academy as well as the financial sector based on a broad-based vision. The institutional framework should include the participation of all key stakeholder groups.

No matter what form the institutional framework takes, it is crucial that it has the power to act, lead and coordinate as well as facilitate collaboration among the various actors. A critical role will include mobilizing government, the private sector, universities, international funds, as well as communities in support of a single-minded objective: make Nigeria a green power. It will be responsible for building and promoting Nigeria's green vision and building networks and relationships to mobilize the nation, gather and disseminate knowledge. Additionally, it is particularly necessary to help overcome the current fragmented governance at the national level, while promoting coordinated actions with state governments, municipalities, and other government institutions.

It should also be responsible for setting up, developing the rules and providing oversight for Nigeria's **Green Economy Fund**. It will design the fund in collaboration with the stakeholders as well as help mobilize the main government agencies, pension funds, insurance, industry, international partners, and development finance institutions to participate in the fund. The fund would not only seed green economy start-ups and MSMEs, but also seek to foster the scale up of companies in the green economy sector.

Other critical roles to be performed by the institution will include data gathering and analysis, facilitating education and learning, while also promoting research and development. These are critical functions if Nigeria is to become a global leader in the green economy space. The institution will help to create and manage a robust and dynamic **Green Data Gathering** and analysis system, linked to international, national, and state level statistics offices to support evidence-based decision-making, as well as support proper monitoring and evaluation of all its initi-

While the market will be crucial, there is also the need for government to help drive the agenda.

It will require an institutional framework that is dedicated and able to drive the implementation.

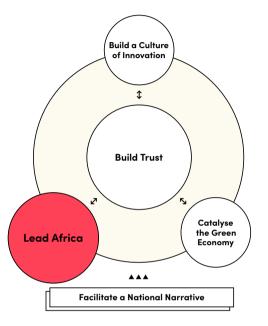
atives. Such data systems should also incorporate mapping pockets of excellence in the green economy sector around the country, as well as natural capital valuation.

In order to close the knowledge gap and increase productivity within Nigeria's green economy efforts, the institution would partner with Universities, technical and vocational education, and training institutions to create the **Green Economy Education Partnership** to help set clear targets (quantitative and qualitative) regarding green capacity building and help to ensure that the educational system is adapted and attuned to building the skills needed by the various stakeholder groups to actively drive the green economy sector. The fostering of autonomous **Research and Development platforms** through partnership with academia and the private sector must be a key element of the institution's focus. Emphasis must be placed on results and promoting competition and collaboration.

07 Lead Africa

Nigeria is well positioned to become a regional logistics and trade hub with the AfCFTA accelerating this process, utilising the ports in Lagos State, Port Harcourt, Onne, Warri, Sapele and Calabar, as well as its four international airport terminals serving West Africa, as well as leveraging the road and rail networks which are in the process of being modernised. Nigeria has historically been an important part of trans-Saharan trade, connecting the coast with the Sahel by virtue of its geography. Landlocked countries such as Mali, Niger and Chad can benefit greatly from closer ties with Nigeria in the future given the economy's size, diversity and projected growth in the coming years.

Stimulating cross-border trade could have substantial economic benefits for those border states. A 2019 World Bank Study pointed to the success of border bazaars, which have been implemented along parts of the India-Bangladesh and China-Kazakhstan borders and which could have economic potential in Nigeria. The country can also leverage its geopolitical leadership working with regional organisations to reduce trade barriers whilst helping to promote regional peace and security, a critical prerequisite given that insecurity is currently hampering cross border trade with Niger, Cameroon and Chad.



Coupled with other internal transformative initiatives, such as prioritising investments in green growth from below and increasing government transparency and accountability, taking over a renewed continental leadership focused on building and pursuing a long-term development agenda for Africa could also provide Nigeria with more control over the narrative on how the world perceives the country. More importantly, through providing strategic leadership for Africa, Nigeria could help to accelerate the creation of a continental market and economic bloc that is able to compete with other regions.

The aim is to engender a new level of regional cooperation within Africa that is able to facilitate socioeconomic transformation and development for the continent, including Nigeria.

TOWARDS AFRICAN LEADERSHIP

In the analytical framework below, we set out the concepts of Hard versus Soft Power. This framework allows us to explore Nigeria and identify gaps and thus point to a roadmap to help Nigeria unlock its potential to become Africa's locomotive.

In particular, we will use the framework to explore the following:

- Examine the assets Nigeria has and how to enhance them.
- Explore challenges and obstacles to unlocking its potential.
- Develop a plan detailing what Nigeria can do in the short-term, medium-term, and long-term. This will form an aspect of the core strategic agenda for the transformation of Nigeria.
- Propose an implementation plan for rolling out the strategy. The plan will also include a risk assessment and a mitigation strategy.

Nigeria needs to combine both hard and soft power to complement each other and build a smart power strategy. This will require rethinking economic strategy and leveraging significant soft power resources through a proactive approach for the creative sector. A diplomatic strategy could make Nigeria the big brother it has sought to be, but not a nanny.

Solving the governance challenges and the image problem will be vital to achieving Nigeria's full potential as the African leader. Even under the current circumstances, significant power can be captured and projected with the right strategies. Many countries still manage to project significant power despite the perceptions of their governance and human rights.

Nigeria should adopt a two-pronged strategy. On the one hand, seek to maximise influence within the given context and on the other, seek to increase influence through improving governance and repairing its image as need be. The potential for Nigeria to lead Africa is not in doubt. Nigeria has significant hard and soft power and the desire to lead Africa. However, Nigeria lacks a coherent strategy to convert various sources of influence to a smart power package. Nigeria needs to rethink its economic strategy so that it can be leveraged to drive its soft power. Similarly, soft power should be enhanced to support economic goals.

Nigeria is often accused of being unable to project power because of a profound domestic governance deficit that is manifested in internal violent conflict, the lack of state capacity and lack of inclusiveness²⁷⁵. It could also be argued that Nigeria is handicapped in leveraging its soft power potential due to a democracy deficit as attested by low scores in some indices²⁷⁶. This democratic deficit damages Nigeria's moral authority to promote effective governance across the continent. Nigeria must do more to strengthen the institutions of democracy.²⁷⁷ This governance deficit also undermines Nigeria's hard power and one could not ignore the irony of states such as Nigeria in the 1990s tasking ECOMOG with creating the necessary conditions for free and fair elections²⁷⁸.

Lead Africa

GURE 3 Towards African Leadership — Analytical Framework

HARD POWER	Economic Power — Leveraging market — Building Africa MNCs — Africa facing FDI — Building Technology for Africa	Stabilizing Power — Peace keeping — Counter terrorism	
	CAPABILITIES & GAPS		
SOFT POWER	Cultural Power — Music — Movies — Sports — Written word — Spiritual power	Diplomatic Power — Integration — Technical Assistance — International negotiation capacity especially in trade	

- What Assets
- ▶ What Gaps
- Building blocks/ pathways
- Strategies
- Projects and program

Despite significant soft power arising from creative arts, he perception of Nigeria continues to be a significant liability due in part to the issues of corruption, environmental degradation in the Niger Delta region, Boko Haram insurgency, human rights violation by the security forces, and conflicts. ²⁷⁹ So while Nigerians are admired, they are equally viewed with distrust, so much so that the Nigerian passport can be a liability as Nigerians tend to be viewed with suspicion at points of entry. The Henley passport index ²⁸⁰ ranks Nigeria very low at (95 out of 110) in terms of the places you go visa-free or get visa on arrival (46 countries) ²⁸¹. This compares poorly to its African rival, South Africa, which is ranked 54 with its passport opening doors in 101 countries.

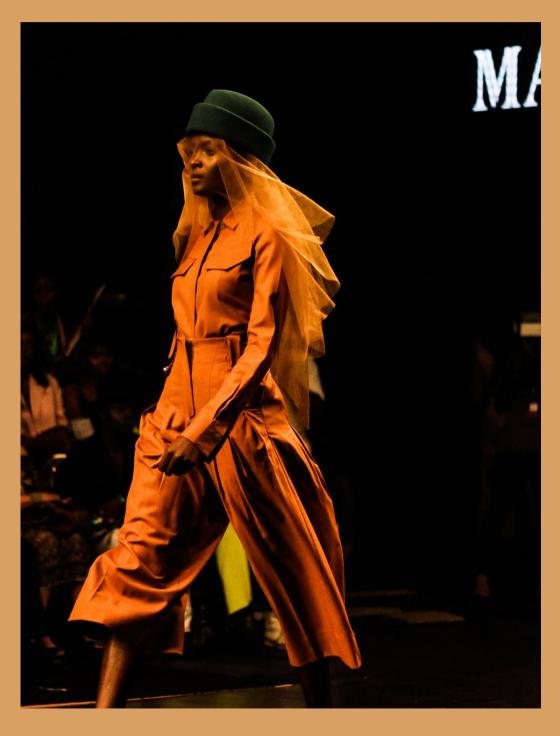
The recommendations outlined below will serve not only to strengthen Nigeria but also to improve its image. These actions need to be complemented by other efforts that can help build a Nigerian narrative that helps change perceptions. This should also be done in tandem with building a larger African story.

RECOMMENDATION 3.1 Maximise Economic Advantage

The economy is the ultimate power of a country. Nigeria's potential as a global economic giant is now accepted by many, with Goldman Sachs putting Nigeria as one of the Next 11 group (also known as N-11)²⁸². These are the eleven countries that are poised to become the biggest economies in the world in the 21st century, after the BRICS²⁸³ countries. To take one mundane example, Nigeria's diaper market is projected to become larger than that of Western Europe²⁸⁴. Another group coined to capture future economic powers that Nigeria belongs to is MINT (Mexico, Indonesia, Nigeria, and Turkey), selected by the investment firm Fidelity in 2011 as a group that they expected would show strong growth and provide high returns for investors over the coming decade²⁸⁵.

Its huge population makes Nigeria a highly coveted market. The market can support the emergence of significant local champions that can later expand to Africa and even globally. For instance, Nigeria's major banks are today

Nigeria has significant resources derived from cultural soft power, mainly due to the dynamism of its creative arts sector.



Mai Atafo. Photo by Gbenga Onalaja on Unsplash

Lead Africa

spread across Africa. The market also gives Nigeria significant power for driving industrialisation. For example, in 1990 Nigeria decreed that all beer should be made from sorghum rather than imported barley. There was a substantial increase in the domestic production of sorghum and the development of malting plants to process the sorghum for beer production ²⁸⁶. In smaller countries, multinational beer manufacturers might have pulled out or extracted a concession as Diageo did in Kenya, for example, when it agreed to use locally-produced sorghum in return for reduced excise duty, making sorghum beer very cheap and thus competitive with local brews.

Nigeria is also likely to replicate this in the Cassava sector, where mandates of cassava bread are forcing a vibrant cassava-based sector. Already, Nigeria is developing food-processing products for the exports market especially around cassava processing equipment, e.g. flash dryers²⁸⁷.

The importance of the Nigerian market to MTN, the South African telecom company, prompted an intervention from the South African president in a case where Nigeria had imposed a huge fine²⁸⁸ for various offences²⁸⁹. The handling of the MTN case is a demonstration of wielding power strategically²⁹⁰, and using it to build diplomatic influence²⁹¹. Further, a strategic use of its market size could allow Nigeria to position itself as a leader²⁹². Nigeria can leverage its huge market to develop national champions that can easily move to other markets in Africa and increase its influence. The market can also be leveraged to make Nigeria an African business hub.

Another area for potential leadership is infrastructure, especially energy. Infrastructure is a classic lever to exercise power: from Russia with its gas pipelines to Europe that has checked US influence, to China's ambitious Belt and Road Initiative. Nigeria has significant gas and oil reserves and many African countries are net importers. This provides opportunity for Nigeria to help lead the continent to push for transition energy such as gas. Building on the moderately successful West Africa Gas Pipeline, Nigeria can build a gas pipeline to supply African countries. Given that some other countries also produce gas; Nigeria can work with them to produce a pan-African gas network. Within a transition approach to

a greener economy, such initiatives could be accompanied by investments in renewable energy, with the creation of Pan-African production hubs to manufacture solar and wind power equipment locally. This will boost Nigeria's exports and also more crucially its influence. Nigeria can also mobilize resources for other infrastructure, including roads and railways.

Position Nigeria as an exporter of locally developed technologies

Nigeria has a vibrant food processing sector mostly supported by artisanal and SMEs food processors who are supported by an equally enthusiastic roadside and SMEs equipment fabricators. The fabrication sector has started exporting machines to other African countries²⁹³. Given the importance of food security and rising urbanisation that is creating demand for ready foods, Nigeria can be at the forefront of transferring technologies to local fabricators. Indeed, Nigeria can use its Technical Aid Corps (TAC) program to transfer the technologies. It has been proposed that Nigeria can lead Africa in developing special production hubs that cover several countries based on comparative advantage. This can allow countries to have economies of scale, enabling Nigeria to focus on producing home grown technologies.

Sharper Focus on Services

Nigeria's protectionist instincts stem in part from local producers who feel threatened by imports. Some fears are legitimate as countries already import cheap products and smuggle them to Nigeria. It has been argued that Nigeria is focusing on the wrong sector²⁹⁴; it needs to turn towards the service economy and be more open to regional trade, making it easier for Nigerian service businesses to enter neighbouring markets. The potential for services, especially ICT, is huge and likely to grow as the 4th Industrial Revolution unfolds. With a significant ICT industry already at home and a market that has seen the major technologies companies show keen interest, Nigeria is poised to become a major exporter of services²⁹⁵. Indeed, Nigeria can export the very systems that can make free

The potential for services, especially ICT, is huge and likely to grow as the 4th Industrial Revolution unfolds.

trade work, i.e., monitoring systems, and in the process help in incubating African multinationals.

A huge market means that some branches of African multinationals are bigger in Nigeria than in their home countries e.g., MTN and Ecobank. Nigeria can leverage this market to selected African companies so that they can grow to become Africa champions. For example, the success of MTN, a South African multinational, has largely been due to its success in Nigeria which gave it the needed resources to expand to the Middle East. MTN Nigeria is valued higher than its parent company in South Africa²⁹⁶. Nigeria can selectively invite African businesses with good potential to grow (or which have developed interesting innovations) to domicile in Nigeria through favourable tax policies and incentives. Indeed, the Nigeria Stock Exchange can become the preferred destination for successful African companies looking to go public.

The emerging African multinationals are driving a new kind of integration. There are now supermarkets operating across several countries and supporting regional value chain development as they buy goods centrally and distribute across their networks. So while a Ghanaian food manufacturer might struggle to enter the Nigeria market, becoming a supplier to Shoprite in Ghana has seen the product end up in Nigerian branches of Shoprite.

Lead African agenda focused on trade and economic development

Deep trade agreements, that is those that cover a larger set of policy areas, such as the AfCFTA, have been shown to be important institutional infrastructure for regional integration. When built effectively, they not only reduce trade costs and define common rules for economies to operate but can also improve policy cooperation leading to increased trade and investments, economic diversification and social welfare. In order to profit from these possibilities, Nigeria should lead Africa in the definition of clear long-term strategic agendas (national and continental) to drive concerted action within the continent, focusing first on regional trade as a tool for socioeconomic development. In particular, Nigeria should build proposals

aimed at creating integrated supply chains within Africa, starting with the West Africa region, that would harness each country's business strengths to promote economic diversification at lower costs. Rapid economic results can be achieved if priority is given to the integration of supply chains in sectors with higher job creation capacity and the potential to solve infrastructure challenges, such as renewable energy and internal/transnational road building.

RECOMMENDATION 3.2 Enhance Strategic Military Leadership

While military might is not the way to gain leadership, as even subduing a small country can be very costly, it is key to guaranteeing peace and stability. To be able to claim leadership, Nigeria needs to be able to guarantee peace in Africa through conflict resolution and peacekeeping efforts. Indeed, nations get acknowledged as regional powers on the world stage through their commitments to peace operations²⁹⁷. Nigeria has done this over the years, starting from the Congo efforts in the 1960s and more recent involvement in Sudan²⁹⁸. The epitome of Nigeria's capacity to use this power has been demonstrated through its leadership of the Economic Community of West African States Monitoring Group (ECOMOG) to restore peace in Liberia (and Sierra Leone) in the 1990s. In 1995, the force consisted of 8,430 troops of which 4,908 were Nigerian²⁹⁹, while the country contributed up to 80% of its funding³⁰⁰. The ECOMOG intervention succeeded in stopping ethnic killing, and it is regarded by many as a model of regional conflict resolution.

However, this power has deteriorated significantly. For example, researchers registered³⁰¹ that the Nigerian military and police contingents in the United Nations-African Union Mission in Darfur (UNAMID) could not meet 20% of the equipment needs required by the UN, while less than 30% of Nigeria's armoured personnel carriers (APCs) in the mission were functional. This deterioration in both quantity and quality has also meant Nigeria's loss of top mission leadership positions in the UN to other countries, including the special representative of the secretary-general, force commander, deputy force commander, sector commanders and police commissioners³⁰². Corruption has also low-

Lead Africa

ered the morale of peacekeepers as monies remitted from the UN through Nigeria to soldiers and policemen have been diverted³⁰³. This deterioration has also been reflected at home, where the army has struggled to subdue Boko Haram amid claims of incompetence and corruption^{304, 305}. Nigerian military power is currently ranked 4th in Africa (and 42nd globally) behind Egypt, Algeria and South Africa^{306, 307}. Thus, in using hard power, there must be a clear strategy and significant effort to build national consensus on the use of military power outside of Nigeria.

There is a significant gap between Nigeria and its Africa leadership contemporaries, which calls for the rebuilding of its military capacity and a focus on peacekeeping.

Additionally, the use of hard power has limitations in the Nigerian or any other political context.³⁰⁸

Africa Standby Force

As Nigeria (and Africa) grapples with the challenge of terrorism, it needs to craft a more holistic approach to security. Having the power to guarantee peace and security is key. A permanent African force is seen as the future of peace and security in Africa. In this regard, the Africa Standby Force (ASF) was proposed in 2003, however, after many years the ASF is still not ready mainly due to lack of political will and also resources ³⁰⁹. Nigeria can put more efforts into making the ASF operational through more concerted efforts at diplomacy. Indeed, ASF can relieve Nigeria from the huge burden of peacekeeping it tends to shoulder especially in its backyard and also reduce the internal political tensions which accompany the creation of a huge military footprint outside.

RECOMMENDATION 3.3 Invest in Diplomacy

As part of its leadership quest, Nigeria has sought to become a permanent member of the Security Council of the United Nations representing Africa, if the proposed expansion of the security council is actualised. In 1992, Babangida called for a permanent seat to fully reflect its geographical composition. More recently, the current Nigerian Vice-President, Yemi Osinbajo, asserted that if one country was to permanently represent Africa on the council, it should be Nigeria based on its peacekeeping role in the United Nations, the size of the economy, and the fact that it has the largest population in the continent³¹⁰.

However, Nigerian leadership in this context has been contested with the main contender being South Africa³¹¹. Nigeria has in the past failed to get countries it has helped stabilise (Sierra Leone and Liberia) to support its candidacy for Security Council membership, underscoring the uphill task for Nigeria in its quest for permanent membership in an expanded security council. It has also been argued that in the African Union, Nigeria's interests and position in Africa are routinely disregarded by other African countries underscoring the need to strengthen its diplomatic power³¹².

It has been pointed that increasing the density of connections within and across Regional Economic Communities (RECs) could, in turn, change the ability of African states to influence the international system and that this deepening of integration is a potential game-changer³¹³. So, perhaps the biggest failure of Nigeria in diplomatic leadership has been its performance in Africa integration efforts where, as the biggest economy, it should have taken the lead. Despite funding up to 40% of the Economic Community of West African States (ECOWAS), Nigeria has not devised a cohesive strategy to build a common ECOWAS market and to benefit from it. Importantly, it needs to take the responsibility for not simply funding but for organising and moving the region towards a common purpose³¹⁴.



Female members of Nigerian military forces march in front of authorities and members of the public during a Democracy Day parade.

Photo: MARCO LONGARI/AFP via Getty Images

Lead Africa

Beyond ECOWAS, Nigeria led the initial push to establish the continental free trade area. However, due to domestic demands by the private sector, it was one of the countries that delayed the agreement's ratification. It was only the 38th country to ratify the treaty.

So Nigeria's positioning as a kind of big brother is not fully reflected in its diplomacy. Nigeria needs to recognize that diplomatic leadership will come at a price. But this should be seen as an investment, not a cost. Nigeria should also see how its diplomatic efforts can be more effectively aligned with supporting economic goals. Some proposed actions include:

Building Negotiation Capacity

Africa is yet to become a global player in regard to international trade, tax, investment treaties, natural resources contracts and environmental negotiations. The existence of a large number of countries in the continent, with varying socio-economic realities and priorities, as well as the lack of sufficient financial and technical resources have made it difficult for the continent to pursue regional objectives effectively. At the same time, in climate negotiations, for instance, African states have become gradually more organised, setting shared priorities, and speaking with a common voice. This collaborative approach must be implemented in other critical areas.

Yet, much more can still be done if Africa is to obtain much earned benefits in international environmental fora in particular, which is comprised of a large set of conventions and treaties that seek to regulate and set targets for countries to improve their performance in a myriad of areas such as air pollution, international watercourses, and wildlife conservation. All these documents have direct or indirect ramifications for millions of people throughout Africa, who are among those most exposed to the impacts of climate change, desertification, biodiversity loss, and natural resources scarcity. Nigeria, as the continent's biggest economy and largest population, is in a privileged position to lead the continent in reaching common ground for a stronger African voice in international environmental negotiations, particularly in the climate change arena.

Using ECOWAS as a platform for action and providing research financing for its own universities, Nigeria should support the development of Africa's capacity to carry out research and data collection on critical global issues that are of importance to the continent, like environment. The research should be tailored to the continent's needs and specificities. On the issue of the environment, for example, Nigeria should organise the development of common longterm sustainable, climate-resilient development strategies for Africa. It would certainly require the country itself to mainstream environmental action into the federal and state governments by setting up clear guidelines, goals, and budgets for concerted operation at the national and local levels — which could be led by an intelligence group comprised of national and state governments, as well as the private sector, and civil society representatives. That would not only organise regional and sub-regional action but also support the continent in claiming a stronger, unified voice to ensure that the continent's common priorities are better reflected in the international environment regime.

Strategically, leadership on trade and environmental issues could be reached by building on the international negotiations structure already in place in the continent, such as the African Group of Negotiators, and pushing for rapid advance on the continent's identified main interests, which in the climate change negotiations is adaptation efforts based on Africa's special needs and circumstances. The country should also actively seek South-South and triangular cooperation to train not only negotiators but also project designers and managers so the continent can use local expertise to further tap the international grants.

Furthermore, Africa has many small countries that have limited resources in terms of presenting themselves. Some countries appoint prominent local people to represent their interests where they cannot have embassies. Starting with ECOWAS, Nigeria can lead efforts to create ECOWAS House where West African states can house their diplomatic representations and ECOWAS could pay for key staff for countries without the resources. This can be part of the development cooperation strategy.

Nigeria needs to recognize that diplomatic leadership will come at a price. But this should be seen as an investment, not a cost.

RECOMMENDATION 3.4 Modernise Development Cooperation

A key plank of soft power is development assistance or "aid". Countries get goodwill and over time aid recipients can also become investors in donor countries³¹⁵. Aid also tends to be tied to the purchasing of services and goods from the donor countries. Indeed, some have argued that much of the aid flows back to donor countries in this way. Nigeria does provide technical assistance with the Technical Aid Corps (TAC), the Nigeria Trust Fund (NTF) and the Nigeria Technical Cooperation Fund (NTCF) being the flagship programs.

Technical Cooperation Funding in Nigeria

The Nigeria Trust Fund (NTF) and the Nigerian Technical Cooperation Fund (NTCF)

The NTF is a self-sustaining revolving fund created in 1976 by an agreement between the African Development Bank Group (AfDB) and the Nigerian government. Its objective is to assist the Bank's development efforts in low-income regional member countries whose economic and social conditions and prospects require concessional financing. It is capitalized at US\$71 million. NTF resources can co-finance operations with the AfDB as well as fund standalone projects.

The Nigeria Technical Cooperation Fund (NTCF), created in 2004, is a special funding window from the NTF (Nigeria Trust Fund). It is capitalized at US\$28.9 million. One of the critical components of the NTCF is the sharing of expertise and knowledge amongst Africans. To this end, the DTCA's Scientific and Technical Exchange Programme (STEP) was established in 2006. STEP aims to deploy high-level experts and African descent professionals to serve as 'technical ambassadors' to sister African nations to bridge the technological gaps between African countries and the rest of the world.

Nigeria has been successful in leveraging the Nigeria Trust Fund to enhance its influence within the Bank ^{316, 317, 318}.

Nigeria should consider providing more development assistance as a way to ensure it has more influence. Contrary to the image given by donor countries, aid has good returns to the giver. In the first place, much of the money flows back in terms of purchase of services and goods from giving countries. For example, a considerable amount of US foreign assistance funds remains in the United States, through domestic procurement or the use of US implementers³¹⁹. Also, significant goodwill is built which can translate to trade and future investments^{320, 321, 322}. Nigeria can start with smaller countries and build to bigger countries over time as it builds its capacity to provide aid and leverage it to drive the export of goods and services.

Yet, Nigerian aid should not be tied to outdated donor-recipient paradigms. It should be based on forging mutually beneficial cooperation arrangements. In this regard, Nigeria could become the continent's reference in cooperation and training. South-South cooperation has been long thought of as a platform for building soft power, achieving prestige and acquiring knowledge that can foster rapid development of a country's own human capital to develop tailor-made, cheaper, more appropriate solutions to local problems and to prepare for a better future. By opening itself to actively offer and receive training on issues such as international negotiations, security, entertainment industry, green economy, strategic visioning, and poverty reduction, for instance, Nigeria can set itself as the go-to country in the continent for discussing African solutions to African problems. At the same time, the country could profit from regional knowledge to create and implement rapid deployment of high impact innovations that can create jobs and improve governance.

RECOMMENDATION 3.5 Further Realise Cultural Impact

Literature, music, movies, tourism, media, and religion are the key pillars of Nigeria's soft power³²³. Indeed, Nigeria has significant resources derived from cultural soft power, mainly due to the dynamism of its creative arts sector³²⁴. In literature, Nigerian writers including Chinua Achebe and the Nobel Laureate Wole Soyinka and more recent writers like Chimamanda Ngozi Adichie and Ben

Lead Africa

Okri have achieved world acclaim. In music, from Fela Kuti to the recent galaxy of global superstars like Davido and Burna Boy attest to Nigeria's depth of talent over generations. Nigerian music has global appeal³²⁵ and is now dominant across Africa.³²⁶ However, earnings remain below the potential due to challenges associated with copyright and running the business of music^{327, 328}. Nollywood movies are watched in the most remote parts of Africa and have inspired copycats all over Africa. Nollywood actors are fast becoming important influencers. For example, Omotola Jalade Ekeinde was named among the 100 most influential people by TIME magazine in 2013³²⁹. In sports, Nigerian superstars, especially in football, have a fan base that spans Africa and beyond.

Beyond soft power, the creative economy can contribute to the economy and create many jobs and more significantly be a driver of innovation. For example, online iROKOtv is the world's largest digital distributor of Nollywood films³³⁰. Building on this, iROKO has built powerful eCommerce platforms helping Nigeria get ready for the 4th Industrial Revolution. Nigeria's government, however, is in need of a coherent creative industries strategy. There is a lack of support structures in the areas of skills and capacity development, access to finance, infrastructure, intellectual property protection, incentives, development of creative clusters and international strategy.

Enhancing Cultural Power

A strategy to build a coherent creative economy should seek to refocus the sector to be more African than Nigerian, given that its consumers are all Africans. The Nigerian government could support Nollywood to become a magnet for the Africa film industry similar to how Hollywood became the proving ground for any actor or producer that wants to have a global audience. Nollywood has been copied all over Africa with varying degrees of success ranging from Ghallywood in Ghana to Riverwood in Kenya. All copycats should be identified and the most talented attracted to want to be part of Nollywood. African stars should be developed and casting of major films should try to integrate actors from around Africa. The government should incentivize big producers like Tyler Perry to put a studio in Nollywood. Nigeria should not wait for Ameri-

can organisations like Netflix to come and shape the evolution of Nollywood.

Nigerian musicians have been very good at adopting other upcoming musicians through collaborations, which helps win markets and, more crucially, transfer skills. Since only big stars have the budgets to do this, other less known stars or new sounds can be supported by having a fund to help new talent experiment in contemporary art forms through collaboration with other unique but less well-known stars.

RECOMMENDATION 3.6 Leverage the Nigerian Diaspora

The Diaspora is a soft power force through the image they build and as a vector of cultural imports. It is largely responsible, for example, for the global popularity of Nigerian music³³¹. Nigeria has a highly dynamic diaspora several generations deep that spread across the globe. This Diaspora has scaled heights of education, technology, business, and entertainment (including sports). People of Nigerian descent are the most educated of any ethnic group in the US (surpassing even the Jewish group). Nigerians and South Africans are the most highly educated, with 61% and 58% holding at least a bachelor's degree-this compares to only 32% of US born population who have a bachelor's degree or higher³³².

Nigerian Diaspora also have positions that hold significant political power, especially in the UK, where some are in the British Parliament and even the House of Lords, and in the US, where Adewale Adeyemo is the new deputy treasury secretary. In the creative industry, Nigerian diaspora has also been very successful with several highly rated actors in the UK and Hollywood. Cultivating this Diaspora has significant potential for building soft power.

The Diaspora is also currently a significant source of hard (economic) power through resources they bring, especially remittances, and trade and scientific networks they forge. Nigerian remittances rival the revenues from oil; 2018 migrant remittances are equivalent to 83% of the Federal Government budget in 2018, and 11 times the FDI flows in the same period³³³.

Nigeria lacks a proactive, diaspora engagement strategy.

Nigeria can also tap older Diaspora from descendants of slaves that identify with Africa generally (also those who can trace ancestry to the country through genetic mapping). This can also be a significant source of revenue from tourism and also in consuming and propagating Nigerian culture. Nigeria has also not done well in engaging the older Diaspora, especially the African American, in contrast to Ghana, which has been very good at connecting with them. Ghana made significant efforts to host the Year of Return that saw many pay homage to Ghana. Ghana's campaign saw a 200,000 increase in visitors and the Year of Return also generated \$1.5 billion in profit. The Government of Ghana estimates that the Year of Return had injected about \$1.9bn (£1.5bn) into the economy³³⁴. The event also attracted a number of celebrities including model Naomi Campbell, actor Idris Elba, comedian Steve Harvey and American rapper Cardi B³³⁵. In Brazil, some descendants still retain and practice cultural and religious belief that they came with from Nigeria, attesting to an even greater connection. The Door of Return of Nigeria, an initiative that aims to create an event where both foreigners of African descent and Africans can explore their common history is practically unknown to the Diaspora it is intended to reach 336 .

Develop a proactive diaspora engagement strategy

Diasporas need better engagement as a source of both hard power (economic) and soft power (image and cultural vector). Both recent and old Diaspora need to be courted. For the more connected Diaspora that send remittances, the greater focus is to create vehicles to channel the remittance to supported enterprises' growth while giving a fair return on investment to the remitters (PwC, 2019). The second and other generations are vital in building soft power.

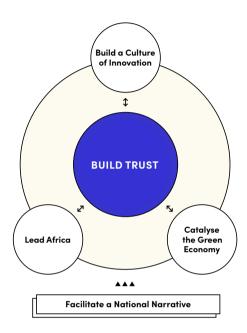
Nigeria lacks a proactive, diaspora engagement strategy. A PwC study³³⁷ points out that the Nigerian diaspora need credible investment opportunities with assured returns on their savings and earnings. However, there is no platform that can provide the needed information and also an investment vehicle. They argue that what is required is a coherent policy framework to harness remittances into generating capital for productive investments.

Borrowing from the successful diaspora engagement models, some proposals include:

- Develop diaspora investment vehicles. An example is Cape Verde which in January 2020 passed a law targeting diaspora investors³³⁸, which establishes, for instance, that dividends and profits for a period of five years from the date of registration of the investment are not taxed. After this period, profits and dividends are subject to a single 10% tax. Among other measures, diaspora investors will have their own One-Stop Service unit and, if they decide to build their first home in Cape Verde, the acquisition of finishing material is tax-exempt. Also, over 100 countries have some sort of citizenship-by-investment program that Nigeria could adapt to foster second-generation diaspora investments.
- The government can set up engagement links modelled on the very successful Chinese model, which includes programs targeting skilled diaspora members in academia and the science and technology sectors. They have portals and temporary exchange programs and special visas for second-generation diaspora members³³⁹.
- Create special status or automatic citizenship for the recent Diaspora so they can stay connected to their roots. India has a special status, Overseas Citizenship of India (OCI), which it gives diaspora of Indian heritage³⁴⁰.
- Modelling Ireland's program, set-up national awards to recognize the Nigerian diasporas who are excelling in sports, entertainment, business, academics in their home countries³⁴¹.
- Borrowing from Israeli policy of engaging with their Diaspora^{342,343}, Nigeria can organise trips and excursions to make sure that they understand Africa's culture and history. Indeed, Nigeria can develop an African cultural centre and museum for this. Furthermore, Nigeria can develop and sponsor a study abroad/exchange program to Historically Black Colleges and Universities (HBCU).

Imagine Nigeria

08 Build Trust



The COVID-19 outbreak has amplified shortcomings at all levels of society and further strained the trust between citizens and public institutions. As resilient societies are premised on good governance, trusted state-society relations are key to effective short-term crisis management as well as to developing a long-term recovery strategy.

The pandemic is not only a health crisis it has also been a test across multiple sectors. The crisis has amplified stresses in the system including inequalities between rich and poor, urban and rural, and risks exacerbating these. As Nigeria celebrates 60 years of independence (October 2020), it presents an opportunity to reinvent ${\bf Governance}$ in Nigeria. Renewing the social contract and building an inclusive society, ensuring peace and growing the economy will require more effective and efficient governance at all levels: federal, state and local. For example, this is an opportunity to re-examine the dynamics of gender inclusion in politics and improve the statistical representation of women, of which a telling example is the current estimate of women accounting for only around 5% of women in the House of Representatives and the Senate as well as few running for elected office.

The most pressing priority for Nigeria is building trust between the various parts of Nigeria's society... This can only be achieved with the engagement of the entire Nigerian society; all must be involved in engendering and rebuilding trust in the society.

Nigeria needs to carry out a range of reforms to build trust between government and citizens. But while important, trust is not enough to take Nigeria forward. Dynamism, innovation and creativity must be encouraged within government and across society if Nigeria is to grasp the opportunities of the coming decades. While trust in government is the critical pillar of change, trust throughout society is low³⁴⁴, and this is bad for social cohesion and for business. Somehow the country needs to dispel today's default culture of distrust and entrench a high trust ethos as the bedrock of social and business relations.

As trust grows so will the belief that the future of Nigeria is one worth investing in, in every sense of that word. Government alone cannot build such reserves of social capital/widespread trust. This can only be achieved with the engagement of the entire Nigerian society; all must be involved in engendering and rebuilding trust in the society.

Trust is earned through concrete actions and meaningful dialogue. At the moment, years of unfulfilled promises have bred popular scepticism regarding the will and intentions of the political class to bring about change. Reversing this tide of distrust calls for nothing less than the institution of a new elite consensus and social bargain based on enhanced public engagement, and a radical approach to accountability and transparency.

Citizenship engagement is key to engendering trust. This is crucial for the citizens at large to be motivated to do more for their countries, including paying their taxes. Leading Nigeria, going forward, to achieve national goals will require new approaches to leadership. Emphasis will need to be placed on developing leaders at all levels and spheres of society. Communication, engaging with the people and mobilising the citizens for action must be key aspects of this leadership. Leadership communication based on empathy and engagement as well as the sense that the citizens are part of the solution is key. Communicating with the public must include 'listening' to their concerns, engaging with them on the plans for the future to be built around a shared vision and showing the people what is happening on the ground are all crucial to building trust and ensuring their support for the national project.

It is in this context that the idea of transformative leadership emerges as part of a broader movement for qualitative change that involves the active participation of citizens and a range of leadership elites spread across different sectors and social layers.

NIGERIA AT AN INFLECTION POINT

As stories of nation-states go, Nigeria is still a youthful country and some of the challenges of governance it is faced with are not uncommon in the experience of other nation-states around the world in the early phases of their development. Despite the plethora of problems it has had to grapple with over the years, the country and its peoples have also built resilience by absorbing some shocks that elsewhere asunder. A long tradition of deploying high stakes political brinkmanship as a tool has endowed institutions with an elasticity that that has - thus far - withstood repeated tests without fraying to a point of breaking altogether. Underlying this resilience is the often understated fact that over the years since amalgamation in 1914, the dynamics of internal migration and mixture that has produced adhesive structures of multi-layered inter-dependence that count for much more than is assumed.

As a result of its national resilience, Nigeria has managed to hold together and trudge along. However, this unity cannot be taken for granted. There is a sense that has built up over the years that Nigeria has long underperformed. Converting such a realisation into organised and concerted action for shared reform and transformation has, however, proved to be one of the country's biggest leadership and governance challenges. This is because different sections of the country offer conflicting and zero-sum readings of the roots of national underperformance. An immediate task at hand is, therefore, to seek a reconciliation of the differences to prevent them from ossifying further.

TOWARDS BETTER GOVERNANCE

Governance anchored on a vision of national transformation incorporates mainstream elements such as trans**Build Trust**

Communications, engaging with the people and mobilizing the citizens for action must be key aspects of this leadership.

parency, media freedom, and the rule of law. But it must also go beyond these to be a system of citizen empowerment, trust building, and constant legitimisation. These elements fit into the unfinished business of nation-and state-building, including the stability needed for long-term development, and the political and policy predictability treasured by citizens and investors. Nigeria certainly needs to strengthen institutions and processes of transparency, accountability, and justice. These are the basic nuts and bolts that are part of any functioning governance system. However, transformative governance requires much more than these nuts and bolts and entails their utilisation as springboards for driving bigger projects of societal transformation.

From its independence to 1999, Nigeria underwent authoritarian-militarised governance almost as a rule while elected civilian government was an interregnum between various rounds of military rule. Experience from years of military rule led many Nigerians to conclude that the country is much better served by investing effort in nurturing democratically elected civilian governments. To be sure, while there is frustration and exasperation with the record of elected governments since 1999 it is clear that given the multi-layered of the Nigerian polity and the difficult legacy of military rule, democracy represents its best option for forging a consensual and sustainable path into the future as a united country.

The complexity of Nigeria means that much time will be spent on the open-ended discussion, negotiation, accommodation, and consensus building required to move policy forward on major matters of state. Yet, as failings and shortcomings go, those that emanate from a properly managed system of democratic governance are generally less costly over the long run and in aggregate than those caused by authoritarian or autocratic regimes. Thus, even in the face of its numerous imperfections, and amidst a painfully slow pace of change that has left many citizens wondering when the dividends of democracy will be delivered to them, there is an unimpeachable case to be made for upholding the democratic ideal. Doing so will, however, require taking corrective measures to right some of the major failings of the Fourth Republic to date.

Although the tone and tenor of the ongoing public discourse about restructuring has tended to be both tendentious and apocalyptic at the same time, a careful sifting points to several areas that have generated the most passion and, therefore, require urgent attention.

These include:

- The distribution of power, competencies, and resources - between the federal, state, and local governments as well as communities;
- The structure of the federal administration with attention not just to the distribution of powers among the three arms of government but also to the size and nature of the public service, the National Assembly, and the national security and defence forces;
- The relationship between the state and local governments and communities;
- The terms and conditions for the enjoyment of citizenship rights on a pan-territorial Nigerian basis, including a revisiting of the rules on what it means to be an indigene;
- The establishment of a set of universal social protections that can be enjoyed across the length and breadth of the country irrespective of a person's place of residence and/or site of labour; and
- The opportunity and scope for the devolution of the responsibility for policing and public safety.

What are some of the specific actions that can be taken now to start to rebuild trust in Nigeria? The implementation of the following recommendations can help mitigate risks relating to social cohesion while laying a strong foundation for societal resilience. These recommendations recognise and build upon ongoing efforts and leverage upon existing infrastructure while highlighting strategic ways forward that could enable Nigeria to emerge stronger from the COVID-19 crisis.

There are several levels of interventions that could be considered for future action as part of a pro-active project of wholesale restructuring which could assist the country to restore trust, consolidate stability, and smoothen the path towards accelerated transformation.

→ FACTS AND FIGURES

Inclusion of women in Nigerian politics and business

- Proportion of seats held by women in national parliaments (% of total number of seats): 5.8%
- Proportion of elected seats held by women in deliberative bodies of local government: 9.8%
- Proportion of women in managerial positions: 30.3%
- Proportion of women in senior and middle management positions: 28.9%

Source: UN Women / Women Count - Nigeria.

RECOMMENDATION 4.1 Substantially increase citizen engagement

A long-standing concern about the workings of the Fourth Republic is the reconciliation of democratic politics with development policy formulation and implementation. Nigeria's democratic experience needs to deliver decent jobs for a large population of young people, implement programs to address social progress of its citizens, undertake investments to expand the productive base of the economy by reviving industry and revolutionising agriculture, and take serious steps to achieve broad-based economic diversification. In the current age of innovation and as the world undergoes a fourth industrial revolution, democratic governance in Nigeria also needs to contribute incentives that would help to unleash the creative energies of citizens, scale-up domestic value addition, modernise public administration - including e-governance, and investing today to build the skills of tomorrow.

The federal, state, and local governments need to agree on the common basket of rights and responsibilities which all Nigerians are entitled to enjoy regardless of their place of origin, birth and residence. These rights would need to be enjoyed on exactly the same terms and conditions by "indigenes" and "settlers" alike. The rights should be universally available across the country.

Access to public education, health, and housing services without discrimination are a basic component of the citizenship rights that should be enjoyed on a pan-Nigerian scale.

The freedom of worship, assembly, movement, association, and speech enshrined in the Nigerian constitution alongside core human rights should also be strictly enforced for each and every Nigerian regardless of where they come from or reside. The right of citizens to reside where they want, when they choose, enjoy property rights,

have access to justice, and live without fear under the protection of the law should be upheld without compromise. Rights come with responsibilities, including the responsibility to pay all lawful local taxes, obey all local laws, and respect all legally-constituted authorities. To ensure that these fundamental rights and entitlements of citizenship are kept alive, they should form the kernel of a renewed national civic education programme conducted in various Nigerian languages and delivered through various media, including all levels of the national educational system. Citizen rights as outlined should also be fully justiciable and legal aid made available to all those who wish to enforce rights which they feel may have been denied before courts of competent jurisdiction.

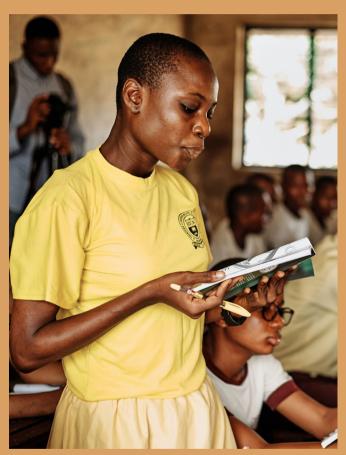
The government should support civil society organisations to work in collaboration with government entities such as the Independent National Electoral Commission (INEC) to ensure persistency of democratic governance practices. On the one hand, this particularly concerns the need to enhance the capacities to conduct free, fair, credible and violence-free elections. Election situation rooms, often run by women-led Civil Society Organisations (CSOs) and Community-based Organisations (CBOs) in close cooperation with security and other civilian actors, have proved a useful model. Broader efforts to enact gender responsive electoral reform should also be sustained as part of the broader review of the Electoral Law, Constitution and Gender and Equal Opportunities Bill (GEOB). On the other hand, this also means fighting online and offline hate speech and ensuring that community-based decision-making processes are gender and youth sensitive.

RECOMMENDATION 4.2 Ensure Inclusion and Participation

An important cross-cutting consideration will be taking advantage of the enormous **human capital** that exists in Nigeria. **Youth** are a key constituency, with over 40% of the population under 15³⁴⁵. Nigeria will have a much larger workforce in the coming years, which provides opportunities for expanding existing sectors and also developing new ones. Similarly maximising the potential of **women and girls** will reap exponential positive social and

Build Trust

Access to public education, health, and housing services without discrimination are a basic component of the citizenship rights that should be enjoyed on a pan-Nigerian scale.





economic effects including in the workplace to ensure training and educational opportunities; closing gaps on salaries, employment, promotions and also politically and socially. The importance of investing in human capital is a lesson from Japan, Singapore and Korea's development with government working with companies to repurpose human capital in the private sector as well as ensuring that youth- and gender-friendly policies cut across both social and governance reforms, so they are recognised as active agents for change. Policy responses should consider women's roles in the agricultural food systems and ensure that their vulnerabilities and distinct needs are adequately addressed.

Meaningful participation by women and youth, older persons and persons with disabilities in political and administrative processes, including in the current pandemic response planning, decision making, and coordination, is insufficient and needs strengthening.

Women are particularly vulnerable to economic recessions as they are over-represented in insecure, low paid jobs in the informal sector and mainly operate micro and small enterprises. Risks of inequalities across groups can only be effectively mitigated if non-discriminatory gender, youth and older persons' perspectives are mainstreamed across all governance activities. This requires greater involvement of women, youth, older persons, and persons with disabilities not only in terms of numbers but also in more effective and meaningful participation.

Some of the key issues to address include:

- Adoption of special measures to support rural women's engagement in the agri-food value chains.
- Investing in women's leadership and engaging them in the design and implementation of COVID-19 re-

- sponse interventions to ensure that their needs and perspectives are adequately considered.
- Supporting gender analysis and age disaggregated data is an integral part of monitoring gender-related impacts and informing the design of response measures that adequately consider and address the differentiated gender needs and priorities.
- Consideration of women, youth, senior citizens and persons with disabilities in planning, designing and implementing social programs and strategies to mitigate the effect of the COVID-19 and other future pandemics

RECOMMENDATION 4.3 Building Institutions

Of the many symptoms of the failings of governance in Nigeria since 1999, none has caused more public disaffection than corruption which is widely seen as having hobbled the political system and also frayed the fabric of society. Apart from the socio-economic losses from graft, the political system as a whole has suffered considerable discredit to the point of risking de-legitimisation. Inconsistencies and selective action by anti-corruption agencies have further reinforced the loss of confidence by citizens in the ability and willingness of government to fight the malaise. Indeed, the fact that the cost of governance in Nigeria continues to rise even as poverty and inequality are spiralling out of control in the country has compounded the deepening crisis of legitimacy of the political leadership. This crisis needs urgently to be stemmed. In this regard, a key priority should be the strengthening of institutional capacity to deliver public goods and social services. This should ensure the restoration of educational, health, bureaucratic and security institutions. This is especially important as the efficient delivery of public goods is essential to recovering public confidence in the state.

The government has already agreed to take action through implementing policies such as those that promote pay for results. These efforts need to be sustained and built upon to support governments at all levels in making sure that expenditure and debt management is transparent and in line with existing monitoring mechanisms. The govern-

Build Trust

ment has already adopted a framework for budget allocations through the Open Treasury Portal and published the procurement details on the Bureau of Public Procurement (BPP) website. These efforts need to be supported and sustained in the long run whereby it is ensured that state and local governments are not bypassing binding regulations. States are currently disseminating revised budgets and are in the process of releasing citizens' budget versions. It will be critical to ensure that monthly budget execution reports are regularly published and audited. In line with that, support to the Auditor General for monitoring and evaluating expenditures should be reinforced. It is critical to triangulate oversight capacities to minimise the risk of unaccountable expenditures.

There is a need to enhance the state-people relations through improved strategic communication and information sharing with the population. The state needs to be a collaborator by creating partnerships with civil society and the private sector in a 'whole-of-society' approach to ensure inclusive engagements. Nigeria needs to develop innovative approaches for holding elections, ensure the effective functioning of democratic institutions, improve parliamentary oversight and increase citizens' participation in political processes.³⁴⁶

Oversight needs to be strengthened by building on existing efforts by internal and external oversight institutions, including relevant parliamentary committees. Establishing and maintaining publicly accessible platforms for monitoring and reporting linked to accountability is required.

RECOMMENDATION 4.4 Decentralise Government

Prolonged years of military rule on the back of the civil war bequeathed Nigeria with a national governance system in which the federal government amassed considerable power over almost every domain of policy while the authority and sphere of influence of states and local governments were significantly reduced. This 'central command' approach to governance may, for a while, have worked for the military, but it is evident that it has, over time, also become obsolete. A question that is worth asking is the number of states and

whether the current states are viable. Coupled with this is the high cost of governance as a share of the national budget.

State and local governments need to be further empowered to deliver public goods. Concurrently, the logic of localised taxation to fund public service delivery at the local level should come into effect. When states and municipalities are in charge of collecting taxes, citizens are enabled to better monitor expenses and take part in deciding where money should be invested.

Tax reform will be important in light of declining government revenue and an increasing call for development financing.

Over 52% of government revenue relies on oil.³⁴⁷ With the oil sector's significance as a source of revenue likely to drop significantly in the next couple of decades, non-oil revenue, especially tax revenue, will play a key role in budgetary finance. Increasing the fight against corruption, efficient use of tax revenue for productive purposes and a set of robust taxation policies and efficient tax administration would be vital. Coupled with these must be a robust strategy and policy framework to further diversify the economy and ensure new sources of revenue to fund the national development agenda.

The absence of competent institutions at the local level is a critical problem. There is a need to strengthen sub-national governance mechanisms at state and municipal levels that allows for increased accountability, interaction with central government and local communities simultaneously. Decentralisation facilitates effective solutions consistent with local values. Focusing on strengthening equitable access to basic service delivery will strengthen trust in governments.

To redress the imbalance that has become evident and which has itself become a potent threat to continued stability, it has become necessary for a redistribution of powers and responsibilities to be undertaken so that states and local governments can exercise more power and responsi-

bility. To this end, the core of the powers and responsibilities of the federal government should be reconfigured and limited to national defence, domestic security, foreign policy, management of the national airspace and international maritime territory, monetary and foreign exchange policy (including currency operations and other central banking functions), national planning, naturalisation, international trade relations, and national transportation corridors.

The constitution already provides tools to support decentralisation which should be optimally exercised. Concurrent responsibility is shared between the federal and state governments in areas such as health, education, housing etc. For a more practical approach, the federal government should take a more activist position to work collaboratively with states to set standards, assure quality and protect citizens - all to the achievement of established and agreed outcomes by both federal and state governments. A current example is community policing which has been supported by the issuance of a Force Order by the federal government and the establishment of regional security networks in the South West and South East geo-political zones. The federal government should aggressively support the capacity-building of these security mechanisms with the provision of minimum standards for recruitment, training and ensure that funds flow directly to the lowest division of the police at the local level.

The areas of exclusive federal responsibility identified are weighty in their own right without the current untenable situation of a small federal budget mostly consumed by overhead and recurrent costs. Although currently shared between the federal and state governments, primary responsibility for important areas such as health, education, housing development, agriculture, industry, etc., should lie with the states and local governments. To the extent to which any federal intervention occurs in those domains, it should be for a limited and definite timeframe. The federal government should mostly content itself with working collaboratively to set standards, assure quality, and protect citizens. Decentralisation, fully implemented, will strengthen states and local governments and simultaneously provide accountability to the public.

RECOMMENDATION 4.5
Invest in a National Peacebuilding Architecture

The government of Nigeria could consider policy options and operational responses that mitigate the short-term risks to peace, while taking the opportunity to set the foundation for longer-term stability. In the short-term, there is need to sustain local level peace and confidence-building initiatives including tailored risk communication measures to respond to emerging communal conflicts.

In the medium- to long-term, it is necessary to develop a plan for and begin to implement a process of strengthening local, state and national peace infrastructure.

A comprehensive and coordinated infrastructure for peace and security would enable Nigeria to better prevent, manage and respond to conflicts across the country. It should include a national level mechanism supported by state and local level platforms, equipped to run early warning, mediation, reconciliation and other peace processes specific to each situation. They would identify the underlying causes of conflict and advise the government on solutions.

Critically, they would coordinate, through established platforms, with the security forces and affected communities to respond to conflict and insecurity when required:

- At the community level, efforts could reinforce platforms to strengthen the local population's ability to mediate and resolve conflicts, including traditional, women, and youth-led peace mechanisms. This effort will need to be linked to the strengthening of pre-existing early warning and response systems.
- At the state level, improved coordination is needed to maximise collaboration with the federal government and accountability with local constituencies, as part of sustained crisis response.

.

Build Trust

At the national level, a policy framework that empowers state and local actors to find situation specific solutions will be required. This could build on ongoing efforts to establish a National Peace Committee / Commission.

Existing examples of peace mechanisms include those included in the design of the National Livestock Transformation Plan (NLTP) which establishes local-level mechanisms for conflict resolution. These could be built upon in the manner described above at all levels of government using traditional and religious institutions. Another existing example is the Nigeria Inter-religious Council (NIREC) which could be re-invigorated and specifically tasked and supported to develop a deep peacebuilding architecture that covers the country at all levels.

RECOMMENDATION 4.6 End Impunity

It will be hard to earn the trust of many parts of Nigerian society, especially young people, if those responsible for corruption, abuse of power and authority, as well as police brutality walk away with impunity. However, impunity does not only manifest as the misconduct of state actors that abuse their authority; it is also perpetuated by the day-to-day law breaking of citizens. The government should demonstrate its seriousness about building forward after COVID-19 by holding everyone that breaks the law accountable. It is crucial to the sustenance of order.

The crisis of impunity in Nigeria presents an opportunity for the justice sector to be more agile and responsive across the criminal justice chain: police, justice and corrections including, for example, a strengthened ICT ecosystem across all institutions and measures to support access to justice, supporting vulnerable groups including IDPs, women and girls and others and partnership across the system to continue building trust and confidence.

Recent legislative reforms including the Correctional Services Act (2019) and the Administration of Criminal Justice Act (2015) provide an opportunity for much-needed reforms. The former envisages a framework for the rehabilitation and transformation of inmates. The Acts constitute strands in the criminal justice reform effort through the leadership of the Ministries of Justice and Interior, respectively, and aim to address investigations, fair trial issues, pre-trial detention, alternatives to imprisonment, life in prison and rehabilitation/reintegration.

Gender sensitive access to justice needs to be strengthened. There is need to push for the adoption of the Gender Equality Bill by the National Assembly and encourage more states to domesticate the Child Rights Act, the Violence Against Persons Prohibition Act (2015) and the Discrimination Against Persons with Disabilities (Prohibition) Act (2018). It is also imperative to ensure full implementation of the Discrimination Against Persons with Disabilities (Prohibition) Act through establishment of the Disabilities Commission envisaged under the Act and the Anti-Torture Act (2017) through adoption of rules and regulations envisaged under Section 11 of the Act.

RECOMMENDATION 4.7 Digitalise Government Services

Within the major digital transformations characteristic of the early 21st century has been the emergence and democratisation of civically-driven apps and platforms, including the rise of "a cultural movement" of regular people who "think about politics and design technologies to be accessible and participatory" Civic Tech has been proposed as a new and important way to democratise governance and public services delivery, as well as to foster greater transparency and accountability between government and the governed. This suggests a massive supplement to system creativity and capacity. The USA, for example, has large-scale initiatives, like Code for America and Civic Hall, which support communities of civic tech innovators to address public interest problems with, for, and sometimes instead of government.

When speaking about the digital economy people often focus on the private sector, but one of the most important pillars of any digital economy is electronic government, or e-government.

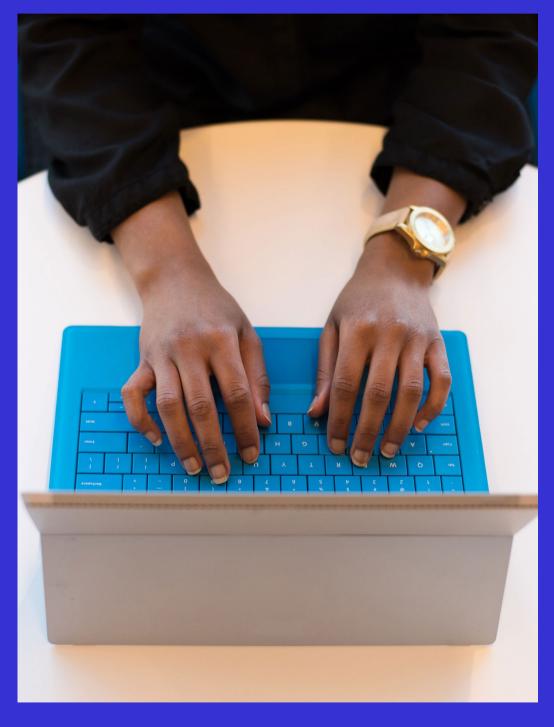


Photo by Christina @ wocintechchat.com on Unsplash

Build Trust

With Africa's predominantly youthful population, civic tech is already emerging as a growing trend as tech-savvy activists innovate and connect to each other.

This trend co-develops with the idea of Government as a Platform (GaaP) – the reorganising of the work of government around a network of shared application programming interfaces (APIs) and components, open-standards and canonical datasets, so that civil servants, businesses and others are enabled to deliver better services to the public, more safely, more efficiently, and accountably. This requires government to remove silos, open up platforms and public data, provide digital public infrastructure, and begin to evolve new institutional interfaces for engaging with civics, including the capacity for co-production of modern enabling policies and strategies.³⁴⁹

Examples of key constellations of tech are:

- Citizen to Citizen (C2C) Tech: Technology that improves citizen mobilisation or improves connections between citizens.
- Citizen to Government (C2G) Tech: Technology that improves the frequency or quality of interaction between citizens and government, including crowdsourcing problems and citizen-initiated solutions / public service improvements.
- Government Tech (Govtech): Innovative technology solutions that make government more efficient and effective at service delivery.

This does not mean, of course, that government should abdicate its responsibilities. In particular, it must maintain a focus on inequitable access that may exacerbate exclusionary dynamics, where already-marginalised communities (e.g., in rural geographies, minority groups, or women) are excluded from the benefits of civic tech empowerment.

The Nigerian government should focus on adopting a Government as a Platform (GaaP) approach including:

- Conduct a rapid review of the civic tech and govtech ecosystems in Nigeria and regionally, leveraging existing continental communities such as the African Civic Tech Innovation Network, to determine existing system capacity, opportunities and partners.
- Initiate and resource a 12-month exploratory process
 of crowdsourcing ideas and solutions, perhaps thematically and sub-regionally to begin with, and have a
 process of efficiently documenting and analysing the
 experiences to determine opportunities, build relationships, stimulate activity, and begin co-producing
 strategies for GaaP and leveraging civic tech capacity.

For the government to be an active participant in making digitalisation a reality, it must transform public services into e-services and adopt electronic (paperless) processes internally. The effects of e-government are multidimensional and include improved governmental transparency. Importantly, digitalisation reduces human interference and the possibility of corruption. New technology does not automatically generate organisational change, but simpler, more transparent institutional arrangements are more likely than slow, inefficient and complicated ones to deliver positive consequences that permeate all of society. Leading by example in this field can generate a totally different innovative digital environment.

The Nigerian government should create an e-government lab to help shift to online services. This lab could:

- Create an integrated online platform to make public services available on the internet;
- Organise design thinking workshops with citizens, public officials and private companies to improve service quality;
- Organise hackathons, public challenges, and incubators for software developers and start-ups;
- Organise processes for experimentation and adoption of tools developed through these processes.

These actions, among others, would incentivise the entrepreneurship sector and foster a new culture in the public sector. It has the potential to make significant contributions to building local technology companies. At the same time, the government should adopt an integrated electronic process throughout the ministries and regional and municipal governments.

All money saved from reduced costs could be invested to increase government performance.

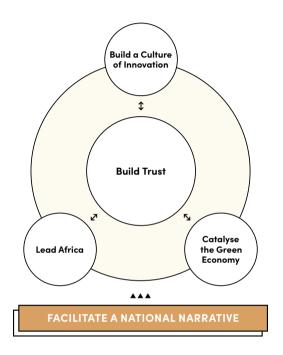
10 ► Best practices in e-government — Brazil

вох

How Brazil has transformed its administrative processes

364 institutions in Brazil process documents and public decisions using the same system, the Electronic Information System (SEI in Portuguese). This system was created in one particular institution (the Court of Justice of the 4th Region) but was shared free of costs to any public institution in Brazil that wants to transform its processes to a paperless format. Once the system is adopted, all communication within the institution or among adopting institutions is made online. The government estimates a cost reduction of US\$20 million per year across participating institutions. As well as reduced costs, the system is more agile. For instance, the Naturalisation Process in Brazil used to take on average 411 days to be concluded (in 2014), but that time dropped to 32 days by 2016.

09 Facilitate a National Narrative



The definitive steps that Nigeria must take to intentionally define its future – build a culture of innovation, catalyse the green economy and lead Africa – cannot be pursued in a vacuum. As outlined in the previous chapter, it is imperative that trust is rebuilt between the state and the society. Nigeria's success in the 21st century will depend on its ability to mobilise the full spectrum of its human resources in pursuit of common goals. This means forging bonds of mutuality and commonality that result in the creative synergy of its diverse peoples. What has long militated against the growth of such mutuality is a pervasive pessimism about Nigeria's prospects. The challenge in this respect is immense. The mainstreaming of a harshly sceptical appraisal of Nigeria's developmental challenges has bred a widespread existential crisis of confidence.

National mobilisation on a truly transformative scale cannot be sustained without a retelling and reframing of Nigeria's circumstances that situate the past and the present within an evolutionary arc that bends towards progress. The aspirations outlined in this document require the persuasion of a critical mass of the population to consciously think of themselves as active participants in a national story. This is the wellspring of a sense of belonging and common interest.

All successful nations have grand narratives that define the terms of belonging and meaning.

A national narrative therefore consists of an ideal (or set of ideals) that marshals the mutual resolve of the public as a singular expression of moral, mental and material efforts aimed at achieving a common purpose. Typically depicted in national symbols and embedded in the written and unwritten norms and conventions such as anthems and flags, this narrative defines the citizens' sense of their collective identity and their relations with the state. A society's organising mythos provides a global portrait and a set of stories that explains contemporary circumstances. It also offers security and identity, unites people, legitimises the social order and supplies individuals with a stock of existential meaning with which they can map their lives' paths as citizens.

All successful nations have grand narratives that define the terms of belonging and meaning. They also inform each nation's sense of exceptionalism in the world. Such exceptionalisms are widely shared stories that portray a given society's historical, cultural and contemporary experiences in ways designed to reinforce shared identity and common aspirations.

They also help groups interpret their origins and identities and to make sense of unfolding contemporary events.

These transcendent national visions inform frameworks of citizenship and civil life.

The historical raw material for such framing exists. There is, for example, much scholarship that yields a basis for reappraising popular conceptions about the country's internal coherence and cohesion and the presumed immutability of its fault lines.

Despite its heterogeneity, Nigeria has never been an unwieldy amalgam of unrelated ethnic fragments nor has its evolution been the arbitrary fusion of mutually alienated communities. Over the course of centuries prior to the arrival of the colonialists, the peoples in the area that would one day become Nigeria had forged relations through trade, diplomacy, migration and, occasionally, warfare.

The recovery of these historical links is a crucial aspect of the retelling of the Nigerian story.

Another essential element of the Nigerian narrative has been its self-perception as the torchbearer of African achievement. From the earliest days of the Nigerian nation, its people and those of other African nations have always harboured a sense of its unique responsibility towards Africa and the wider black world. One out of five Africans is a Nigerian. There are more Nigerians than Britons or Germans or Frenchmen. Nigerian elites understood Nigeria as ordained by history to wear the mantle of black dignity and black excellence on the global stage in a world rife with racist ideas of African inferiority.

This posture informs an activist foreign policy that has seen Nigeria historically involved in the anti-apartheid struggle in South Africa, provide moral and material support to liberation movements in Southern Africa, participate with distinction in many peacekeeping and peacebuilding missions in Africa and beyond, and establish the Technical Aid Corps (TAC) to provide development assistance in African, Caribbean and Pacific (ACP) countries. This commitment to African solidarity and more broadly to the global black community continues to be one of the key pillars of Nigeria's engagement with the world at large.

STRENGTHENING THE BONDS OF TOGETHERNESS

The task of forging commonality out of the plurality of identities and persuasions on its shores remains Nigeria's enduring challenge. Over the years, the government has evolved various measures to address this challenge. From 1967 to 1970, Nigeria was embroiled in a tragic and costly civil war, but it emerged from that conflict armed with important lessons. Recognising the conflict as strife between kinsmen, the government declared that there was "No Victor, No Vanquished" and launched a program of Reconstruction, Rehabilitation and Reconciliation.

In the aftermath of the war, the government instituted a general amnesty which precluded mass trials of those that had served on the rebel side of the conflict. A number of military officers and civil servants that had left their posts

Facilitate a National Narrative

and served in the Biafran secessionist regime were reabsorbed into the Nigerian armed forces (albeit with loss of seniority) and the civil service. Private citizens returned from Biafra to other parts of the country from where they had fled at the onset of hostilities. Nigeria's practical commitment to reconciliation and reintegration of former adversaries broke new grounds in the annals of post-war peacebuilding.

The government established the National Youth Service Corps (NYSC), a year-round program of national service that embeds graduates from various backgrounds in diverse communities with the goal of acquainting them with different cultures while availing the localities of their valuable skills. The NYSC now deploys over half a million young Nigerians annually across the country.

The government also established Federal Government Colleges or Unity Schools, secondary schools in which young students from diverse backgrounds are educated together. There are now 104 such schools nationwide. In the post-war period, the National Sports Festival was initiated as a domestic version of the Olympic games that brings athletes from various states and localities to compete for honours. Many athletes who starred at the Festival have gone on to represent Nigeria on the world stage and earned laurels, including Olympic medals.

The lessons learned from the civil war were encoded in the constitution drafting process. The framers of the 1979 Constitution enshrined the Federal Character principle which stipulates that "there shall be no dominance of persons from a few states or from a few ethnic or other sectional groups in the government or in any of its agencies." The principle informs policies of affirmative action, inclusion and representation in public life aimed at reflecting the society's diversity and fostering "a sense of belonging and loyalty among all the peoples of the Federation."

While the cumulative effects of these peacebuilding measures are debated, the fact remains that Nigeria has not experienced another civil war. It is one of the few countries in Africa that was buffeted by conflict between the 1960s and the 1970s that did not suffer a relapse into strife and

spiral into intergenerational conflict. The integrative institutions that evolved after the conflict have also shaped generations of Nigerians through the crucible of shared experiences. Rapid urbanisation and massive infrastructural investments have shrunk distances between previously far-flung locales and induced greater mingling of peoples in sprawling cities and towns that have become birthplaces of Nigerianness.

DEEPENING OUR TIES

Despite the contestations over civic meaning and memory, there is sufficient integrative potential that can be harnessed and there are sufficient foundations upon which we can build a common future.

RECOMMENDATION 5.1 Reclaim History for Civics

A new story of Nigerian progress must necessarily reclaim its antiquity by discarding the narrative of the country as an arbitrary colonial patchwork of mutually alienated communities which have nothing in common. The effect of this narrative has been to fuel fragmentary tendencies that undermine social mobilisation. Undoing these misrepresentations of the past requires us to appropriate and represent long neglected historical truths central among which are the ancient relationships between precolonial polities that were built on centuries of migration, trade and diplomacy.

The government should design a program of civic orientation implemented through both formal educational institutions and the utilisation of mass media to reach the wider public. This program will be anchored to a new narrative of Nigeria as the odyssey of self-determination, self-actualisation and progress of the biggest black nation in the world. This measure requires the implementation of the Heritage Recovery Project, a wide-ranging redesign of the history, social studies and civics curricular for primary and secondary schools. It is essential that Nigerian children are taught from an early age what Nigeria means.

Nigeria needs to have a robust leadership standard, from and for its people.

RECOMMENDATION 5.2 Decolonise the Past

Although Nigeria is home to civilisations going back at least two millennia, there is little mainstream knowledge of these early human settlements. The government should encourage research, particularly in the fields of archaeology, palaeontology and anthropology, to unearth ancient migration and settlement patterns as well as the long links between Nigeria's constituent communities. This will provide a scientific basis for reframing the conversation around identity, belonging, a shared past and a common future.

RECOMMENDATION 5.3 Engage Popular Culture

Nation-building is a creative project. The power of the arts to shape hearts and minds should be deployed to renew the possibility and plausibility of the Nigerian nation. Nigeria's vibrant popular culture can serve as a vector for mainstreaming a new national narrative. This entails turning the soft power potential of Nollywood inwards to build civic consciousness through a wide range of imaginative and inspirational projects. The government should encourage and engage in partnerships with film makers, story tellers, artistes and cultural entrepreneurs of all hues to mainstream the national narrative through artistic platforms.

RECOMMENDATION 5.4 Revitalise Integrative Institutions

In times past, the government established important agencies such as the NYSC, the National Sports Festival, the Federal Government Colleges and the Federal Character Commission among others. While the effectiveness of these institutions has been hampered over the years by declining standards, the basic principles that informed their creation remain unimpeachable. These strategic institutions need to be retooled and strengthened to effectively carry out their mandates of promoting social cohesion, national integration and inclusion on a transformative scale.

RECOMMENDATION 5.5 Create a Pantheon of Heroic Exemplars

When it was established in 1963, the National Honours and Awards were instituted to identify and encourage merit and to recognise individual contributions to national progress. It was revived in 1975, after a ten-year hiatus, as a means of reawakening civic and community consciousness and inspiring service to the country.

The underlying principle is that a nation perpetuates the sort of behaviour that it rewards. Promoting a new narrative calls for the adequate recognition of individuals that represent the finest manifestation of the values highlighted in the narrative. Social incentives that encourage the popular adoption of the desired ideals should be implemented. There is therefore a need to create a pantheon of heroic examples. The National Honours and Awards is a forum for achieving this end. The government should redesign it to recognise those individuals who exemplify service to country in Nigeria and those of Nigerian descent in the diaspora who are making contributions to human progress abroad. Highlighting and amplifying the recipients as heroic exemplars of the Nigerian spirit of achievement will have a salutary effect on the national consciousness and reinforce the ideal of Nigerians as the torchbearers of black excellence.

Summary of Recommendations

Build a Culture of Innovation

Only by becoming an innovation-driven society will Nigeria succeed in building the desired future for all.

Catalyse the Green Economy

Fostering locally grown green solutions and industries will allow Nigeria to diversify its economy, improve its competitiveness, create jobs for its rapidly growing and youthful population, while responding to the global climate crisis.

Lead Africa

A more proactive and dynamic leadership role by Nigeria will engender a new level of regional cooperation and provide Africa a voice in the international arena as well as new opportunities for national transformation.

Build Trust

Lasting positive change in Nigeria will only happen if there is trust between citizens and public institutions, as well as throughout society as a whole, with a transparent and dynamic government serving as a catalyst for transformation.

Facilitate a National Narrative

Nigerians must build national narratives that tell the story of who we are as a people, our values and our priorities that reflect a common vision, in order to build the necessary social cohesion based on solidarity and shared interconnectedness.

Nigerians must build national narratives
that tell the story of who we are as a people,
our values and our priorities.



Photo by Dennis Irorere Unsplash

10 Conclusion

THE FIVE PILLARS OF CHANGE

The selection of the five pillars as the basis for 'building forward' and transformation is rooted in the analysis of the trends that will shape the world and Nigeria over the next 30 years. As indicated, the world will largely be driven by the opportunities and threats posed by increasing technological innovations, climate change, and multi-polarity. These drivers will impact Nigeria as well as the internal trends which include the consequences of climate change, increasing insecurity, and a rapidly growing population. The interplay of these factors as well as the actions and inactions of the stakeholders will shape the future of Nigeria.

The challenge before Nigerians is how to proactively seize the opportunities provided by the rapidly changing world as well as to be prepared to mitigate the threats.

The two most fundamental building blocks are trust and a dynamic government, and engagement of all citizens and sectors of the Nigerian society to build a social compact.

It will be impossible to address the current and emerging challenges facing Nigeria without these two building blocks. They will provide the foundation on which the future can be built. The reality is that Nigeria needs a social compact based on a national consensus and around a set of national priorities. It is the basis on which the various stakeholders intervene and engage. It is also about re-defining the rights and responsibilities of citizens. Also, crucial is the need to build trust between citizens and public institutions, as well as throughout society as a whole, and dynamic government to help serve as a catalyst for change and transformation in Nigeria. The people need to believe in their government in order to facilitate a virtuous development circle. Without a trusted and dynamic government, achieving the development goals will be infinitely more difficult. Trust and a dynamic government are needed to mobilize domestic resources, provide security,

ensure the rule of law, as well as to make and implement policies in many other areas including the facilitation of rapid economic growth and development.

The challenge of development and transformation in Nigeria today is partly a crisis of innovation. It is not that the country and the people are not innovative. It is the fact that the ecosystem for innovation remains stagnated and at its infancy. The issue of insecurity, building a capable government, diversifying the economy away from over relying on oil, dealing with the challenges of climate change, providing housing to ensuring highly performing educational and health sectors will require emphasis on building a culture of innovation at the national level. The cost of doing business is too high whilst the needs are simply too many. It is only through ensuring that innovation permeates the culture and everything that we do as a nation, whether it is governance, building a competitive digital economy, to addressing the basic and perennial challenges of development, can we be sure of making progress. Therefore, the recommendation is focused on how to place innovation at the centre of Nigeria's development.

Becoming a global leader in green economy is another imperative. Nigeria must diversify its economy. Nigeria must respond to the global climate crisis. Nigeria must prepare for the emerging end of the oil economy, and Nigeria must anticipate the behavioural changes taking place in the world with respect to going green. Nigeria is already feeling the impacts of climate change from the prolonged droughts in the north to the floods in the south. As such, Nigeria cannot be indifferent to the emerging green movement. The key is to be proactive, set a national agenda and carve out a few niches in the emerging green economy as a basis to build a new economy that can power the nation's growth and transformation over the long term. Nigeria can only 'build forward' in the emerging world by becoming a global leader in the future industries that will emerge in the green space. This is crucial to creating jobs for the rapidly growing youth population, as well as generating the tax revenue needed by government to build infrastructure and deliver services to the people. The recommendations therefore are to initiate the efforts from planning, building the institutional environment, to creating the enterprises of the future.

In a world dominated by major markets and key blocs, Nigeria cannot go it alone. It must lead and help organise the African continent to act as a bloc and compete with the other major blocs whether it is in trade negotiations, science and technology or in geopolitical games of interest. Nigeria leading the African bloc stands a better chance on all fronts and it is critical to fast track its 'building forward'. However, leading Africa must become a policy objective and not simply an assumption. Nigeria has what it takes and it is implicitly assumed to be the leader of Africa. The proposal is for Nigeria to effectively own this given the importance of the continent to the achievement of Nigeria's national goals, and vice versa.

IMPLEMENTATION

The implementation of the suggestions made here should be considered in a systemic fashion. Lessons from countries like South Africa³⁵⁰ and Mexico³⁵¹ have demonstrated that the institutional embedding and harmonisation of innovative policies is important, otherwise a shotgun approach to choosing interventions and proliferating institutions could be fragmenting and wasteful. Principles and tools to guide implementation include:

Co-design and Co-opt

Although the state must play a leading role, it is important that they are doing so in a participatory way so as to secure the best ideas, buy-in and inclusion of all key stakeholders. A policy co-design process, bringing key stakeholders along from the very beginning so that they contribute to the design and take ownership of its success is one way to secure buy-in. It will require a careful process of stakeholder mapping, analysis and recruitment. The key is to avoid the risks of process delays and political bottlenecks.

Prioritise

An "Impact vs. Difficulty" matrix of the kind depicted in Table 7 is recommended as a useful analytical frame to prioritise interventions. It would be useful to use a method like this to, in particular, begin zooming into the early (short-term) actions which can help secure the legitimacy and maintain the urgency of the project by showing early energy and delivery. The government / lead institution may venture its view on the prioritisation matrix, but the process must ultimately be undertaken with the key stakeholders and decisions made on a co-owned basis. Communication and transparency are very important in this regard. Here it is important to avoid too many priorities, and too lengthy disputes about prioritisation.

Systematise and Sequence

Policy recommendations and project proposals that are chosen will also need to be taken into a systems and sequencing analysis. In addition to being clear about the strategic and tactical implications and outcomes of the initiatives selected, they should be sequenced into short, medium- and long-term time frames e.g.:

- Short-term: This is the next 2-3 years (2021-2023), the remaining lifetime of the current Nigerian administration which ends in 2023; this should include the "low-hanging fruit" (opportune) and "quick win" initiatives, but still with a strategic view on them. Foundational work to inform medium- to long-term interventions may also be included.
- Medium-term: This extends to 10 years from now (-2030) and includes programmes and reforms that will take longer to get off the ground and to have an impact.
- Long-term: This goes up to 30 years from now (-2050), to the end of Nigeria Agenda 2050. This will typically refer to more structural / systemic changes which are slower to shift and have a longer impact horizon.

In sequencing, it is important to see the different time horizons in relation to each other rather than as separate projects. Ideally, the short-term interventions should already have in mind the longer-term agenda and be cueing that up, or at least not negatively impacting it.

It is equally important to be aware of the challenging dynamic complexity involved in attempting to systematise and sequence such complex phenomena, including feedback, path dependence and policy resistance³⁵².

Conclusion

TABLE 7 Sample prioritisation matrix tool

DEGREE of DIFFICULTY

"Low Hanging Fruit" (Quick Wins) "Major Projects" (Transformational) Leverage diaspora (through NiDCOM) - NSI Leverage digitisation / AfCFTA **Economic diversification** Inclusive incubation Building a responsive and high-quality Innovation-focused deregulation vocational education and training system Promoting alternative credentials that are cheaper, quicker and more aligned to industry and innovation requirements LEVEL of **IMPACT** "Fill ins" (Momentum Builders) "Thankless Tasks" (Luxuries / Derailers) Fact-finding missions to exemplar states and Large-scale projects that are institutions (with clear KPIs and deliverables) misaligned with national priorities In-depth appraisals and adaptations and contextual opportunities of exemplars, or entirely new concepts Attempts to transform well-entrenched Small-scale experiments and pilots to test out industries and government bureaucracies into overnight innovators Consultation, awareness and sensitisation initiatives on experimental and pilot results

Operationalise

To avoid this being a fruitless "paper" exercise, it will be important to identify, assess and assign specific responsibilities to the key operational actors. This is not just a technical matter.

Four strategic approaches for operationalising the recommendations in this document could be pursued 353,354 :

- <u>Creating cultural practices</u> customs, traditions and conventions/routines – to promote innovation.
- Reframing debates on government to debates on governance, including what rules to use when changing rules, geared towards distributed governance and transversal leadership.
- <u>Retooling</u> efforts to support the framing strategy, including at both symbolic level (political vision) and

- practical level (administrative means for the reallocation of responsibilities).
- Mobilising to proactively neutralise and expose active resistance (from incumbent holders of power and in the form of schemes to derail change), as well as to elicit strong commitment (through education, information and communication).

Measure and Monitor

Defining Nigeria's strategic goals and their associated metrics and key performance indicators (KPIs) is a crucial aspect of building a new culture. This area is fraught with numerous pitfalls and complexities as recent South African³⁵⁵ and global³⁵⁶ research shows. However, there is no substitute for it. A graduated approach to impact measurement should be used and monitored³⁵⁷.

Nigeria leading the African bloc stands a better chance on all fronts and it is critical to fast track its 'building forward'. However, leading Africa must become a policy objective and not simply an assumption.





Photo by Omotayo Kofoworola and Emmanuel Ikwuegbu Unsplash

The next generation is counting on us.

Let's Imagine Nigeria.

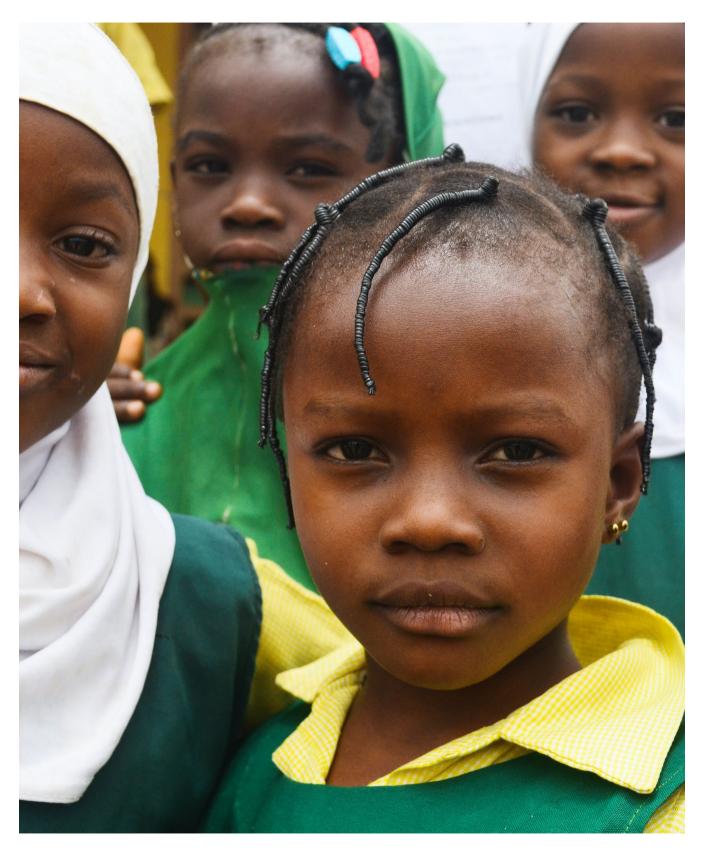


Photo by Abubakar Balogun on Unsplash

Acknowledgements

Many people participated in this exercise on the future of Nigeria. The High Level Panel would like to specially thank everyone for their engagement and especially the following for their commitment and contributions.

SCENARIOS

Aidan Eyakuze Amaka Anku Craig Wing Julius Gatune Olugbenga Adesida

POLICY BRIEFS

Adebayo Olokushi Adewale Ajadi Bankole Oloruntoba Geci Karuri-Sebina Julius Gatune

REVIEWERS

Catherine Diam-Valla Clive Bates Halima Bawa-Bwari Huzi Mshelia Kabir Yusuf Narue Shiki Renata Rubian

INTERVIEWS

Abdu Mukhtar
Adewale Ajadi
Adiba Ighodaro
Akintunde A. Oyebode
Charles Murito
Clem Agba
Christian Oldiges
Comfort Ero

Damilola Ogunbiyi David Ladipo Diana Alarcón Funmi Olonisakin **Garry Conille** Jonathan Reichental Kala Fleming Kojo Boakye Marco Steinberg Mark Okoye Martha Chen Myma Belo-Osagie Pali Lehohla Romulo Paes Sabina Alkire Shamsudeen Usman Tayo Akinwande **Tonye Cole** Udoma Udo Udoma Yemi Osinbajo Valentine Bianki

CONSULTATIONS

Abayomi Awobokun
Abdu Usman
Abdul Quawiy Olododo
Abdulaziz S. Ahmed
Abdullahi Abubakar
Abdulmumin Mukhtar
Abdulrahaman Isah
Abiodun Buari
Abiri Oluwatosin Niyi
Abu Shettima
Abubakar Suleiman
Abubakar Metcho
Adaeze Usoh
Adamu Garba Adinga

Adebayo Olukoshi Adekunle Akinkunmi Adenike Balogun Adewale Ajadi Adeyemi Zainab Adia Swoho Ahaji Ahmed Ashemi Ahmad Modibbo Ahmed Shehu Aidan Eyakuze Aisha Augie Kuta Aji Kolo Alamai Akin Soetan Akudo Ojo Alan Hirsch **Albert Kure** Alex Anyanwu Ama Ase Amaka Anku Amaka Cyri Amina Sambo Anita Agbakoba **Anjorin Kamal** Anna Ekeledo Arnold Jackson Asabe Baba Saleh Asmaiu Ishaq Ayeni Tolulope Ayisat Agbaje Baba Mustapha Dunoma Baba-Jallah Epega Babakura Mamman Babatunde Abidoye

Baligees Salaudeen

Bankole Oloruntoba

Bela'ulhakim Sani Zango

Becca Maulome

Adaobi K. Oniwinde

Adara Abiodun

Bibi Bakare Yusuf Bilkisu Inuwa Blessing Achu **Bruce Olotu** Charles Emembolu Charles Okechukwu Chinedu Nwagbara Chinyere Ifendu Chioma Okoro Chitra Nagarajan Chizoba Bethel Chris Newsom Chris Ngwodo Chukwudi Mathew Comrade Mohammed Isa Craig Wing Dan Kunle Danladi Verheijen Debisi Araba Didam Laah Donatus Okezie Ebere Nwachukwu Ebipere Clark Edwin Akabuilo Eka Ikpe Ele loy Eloho Omame Emeka Okafor Emeka Onu Emetu Agwu Enyinnaya Chukwu **Ese Oswie** Esther Jerry Esther Chibueyin Fagbo Fagbohun Zainab Fatima Abiodun Francis Anatogu

Friday Odey

Bernice Abeku

Funto Boroffice Kadaria Ahmed Ngozi Dike Samuel Orii Gabriel Okon Kamaldeen Kehinde Ngozi Okehie Sanusi Abdullahi Gbadamosi Shereef Kassim Geidam Sanusi Ismaila Nguveren Mary Igbazua Gbenga Adesida Kazeem Shuaib Nnamdi Anika Serah Onwuka Geci Karuri-Sebina Kelechi Orji Nnanna Ochunkwo Serah Ugbabe Ghazali Abdulmuizz Kelechukwu Nnakaenyi Nneka Ukay Shamsudeen Magaji Koasarah Abdulrasaa Grema Kyari Nnenna Okorji Shemau Aliyu Habib Nuhu Solape Hammond Koffi M. Kouakou Nonye Moghalu Habiba Ibrahim Kofoworola Oyeleye Obaka Ikani Stanley Okoh Hadiza Kere Kristin Wilson Obianuju lames Suleiman Ibrahim Abdullahi Leonell Echa Hadiza Mustapha Odusina Oluwaseun Sumayya Ishaq Hajiya Bintu Chiroma Lola Masha Ojulari Saheed Sumayya Muktar Hajiya Gambo Zuwaira Lordson Ojo Okar Chigozue Sunusi Hashimu Hamisu Dandajeh Lucia Ali Okpan Nnanna Temi Kolawole Hamza Lawal Mahmud Abdullahi Okuwa Eleanya Teslim Balogun Hauwa Yabani Maryam Lawan-Gwadabe Olaoye Ogundamisi Tochi Okorie Hayatuddeen Omar Yusuf Olasupo Abideen Tolu Adetunji Maryam Usman Hayfa Talui Megindade Taiwo Oliver Owen Tomi Ayorinde Toni Fola-Alade Henry Adigun Mercy Wakawa Olufunto Boroffice Ibrahim Abubakar Mikail Daya **Omolar Daniel** Uche Otti Mimshach Obioha Uduma Emeraghu Ibrahim Lawal Ahmed Onuoha Ukefi Ibrahim Modu Sheriff Osaretin Oswald Guobadia **Umar Bako** Mjumo Mzyece **Idayat Hassan** Modupe Adefeso-Olateju Osasenaga Enogieru **Umar Faouk Musa** Mohammed Baba Mallam Ife Adebayo Oyinkansola Odidi Umar Faruk Mustapha lieoma Ezeasor Mohammed Brimah Ozioma Uzoma **Umar Sadia** Ikem Isiekwena Mohammed Zarma Pedro Bolanle Umaru Saidu Innocent Isichei Mohammmed Bukar **Peter Harrigton** Usman Abba Magaji Iseoluwa Akintunde Moji Rhodes Philip Agbese Ir. Victoria Dogo Jacob Fubara Mubarak Abdulkarim Precious Akanonu Vincent Okeke Muhammad Muktar Prisca Egbom Williams Olaosebikan James Ochunkwo Jamison Erwin Mukhtar Tijani Rahila Ibrahim A. Wole Odetayo Raymond Ogbonna Jasper Iwuanyanwu Mustapha Yakubu Yemi Anyaoku Jibril D. Jibril Mustapha Hussaini Rinsola Abiola Zahra Yunusa Joe Penney Mustapha Kokori Rolake Akinkugbe Zainab Mohammed Jombo Paul Muyiwa Odele Rotimi Suleiman Zaliha A. Lawal Rukayat Yahaya Zanna Bintube Joy Ajuluchkwu Mwangi wa Githinji Salami Ibrahim Juliet Anammah Najim Animashaun Julius Asiegbulem Nasir Abdulquadri Saliha Nasir Saled Julius Gatune Ndubuku Anthony Salman Habibat

Design by Studio Mnemonic, www.studiomnemonic.com

Endnotes

- UNDP [United Nations Development Programme] (2020). Human Development Report 2020: The next frontier, Human Development and the Anthropocene. United Nations Development Programme. [Online]. Available at: http://www.hdr.undp.org/sites/default/files/hdr2020.pdf
- Otsubo, S. T. (2007). Post-war Development of the Japanese Economy. EDP&M Program lecture presentation. Nagoya University, Economic Development Policy and Management Program. Available at: https://www.gsid.nagoyau.ac.jp/sotsubo/Postwar_Development_of_the_Japanese%20Economy(Otsubo-NagoyaU).pdf
- 3. Tachi, M. and Okazaki, Y. (2007). Japan's postwar population and labour force. The Developing Economies, 7(2), 170-179.
- Maria Mondeja (2017). "Notes on Singapore's Development Strategy." International Program Papers. 54. http://chicagounbound.uchicago.edu/international_immersion_program_ papers/54
- https://issuu.com/undppublicserv/docs/booklet_undp-sg5o-winsemius_digital
- Kim, K. S. (1991). The Korean miracle (1962-1980) revisited: Myths and realities in strategy and development. Kellogg Institute. [Online].
 Available at: https://kellogg.nd.edu/sites/default/files/old_files/documents/166_0.pdf
- 7. Id.
- 8. Id.
- 9. Id.
- 10. British oil giant BP Plc estimates that the global demand for oil will never again return to the prior COVID-19 levels, while OPEC assesses that the world will reach the peak for oil demand in two decades.
- Randall, T. and Warren, H. (2020). Peak Oil Era is Suddenly Upon Us. Bloomberg. [Online]. 1 December 2020. Available at: https://www.bloomberg.com/graphics/2020-peak-oil-era-is-suddenly-upon-us/
- NBS [National Bureau of Statistics] (2021). Nigerian Gross Domestic Product Report: Q4 & FULL YEAR 2020. National Bureau of Statistics. [Online]. Available at: https://nigerianstat.gov.ng/download/1229
- NBS [National Bureau of Statistics] (2021). Consumer Price Index December 2020. National Bureau of Statistics. [Online].
 Available at: https://nigerianstat.gov.ng/download/1213
- 14. Federal Republic of Nigeria (2020). Bouncing Back: Nigeria Economic and Sustainability Plan. Available at: https://ngfrepository.org.ng:8443/bitstream/123456789/1131/1/NIGERIA%20 ECONOMIC%20SUSTAINABILTY% 20PLAN.pdf
- U.S. Energy Information Administration (2021). Short-Term Energy Outlook (STEO) March 2021. U.S. Energy Information Administration. [Online]. Available at: https://www.eia.gov/outlooks/steo/archives/Mar21.pdf

- IEA [International Energy Agency] (2021). Oil 2021 Analysis and forecast to 2026. International Energy Agency. [Online].
 Available at: https://www.iea.org/reports/oil-2021
- 17. Olisah, C. (2020), World Bank report states that Nigeria faces worst recession in 40 years. Nairametrics. [Online]. 25 June 2020. Available at: https://nairametrics.com/2020/06/25/world-bank-reportstates-thatnigeria-faces-worst-recession-in-40-years/
- Gbadeyanka, M. (2019). Nigeria's Tax Revenue to GDP Ratio Rises to 7%. Business Post. [Online]. 24 January 2019. Available at: https://businesspost.ng/economy/nigerias-tax-revenue-to-gdp-ratio-rises-to-7/
- The Global Economy (2019). Tax revenue Country rankings. [Online]. The Global Economy. Available at: https://www.theglobaleconomy.com/rankings/Tax_revenue/
- Olisah, C. (2021). Nigerian government spends equivalent of 83% of revenue to service debt in 2020. Nairametrics. [Online]. 17 January 2020. Available at: https://nairametrics.com/2021/01/17/nigeria-re-cords-83-in-debt-service-to-revenue-ratio-in-2020/
- CBN [Central Bank of Nigeria] (2020). Economic Report: Fourth Quarter 2020. Central Bank of Nigeria. [Online]. Available at: https://www.cbn.gov.ng/Out/2021/RSD/Fourth%20Quarter%20 2020%20Economic%20Report_1.pdf
- Focus Economics (2020). Exchange Rate in Nigeria. [Online].
 Focus Economics. Available at: https://www.focus-economics.com/country-indicator/nigeria/exchange-rate
- NBS [National Bureau of Statistics] (2019). 2019 Poverty and Inequality in Nigeria: Executive Summary. NBS. [Online].
 Available at: https://nigerianstat.gov.ng/download/1092
- 24. World Bank Group (2020). World Bank Group to Boost Nigeria's Efforts to Reduce Poverty. [Online]. World Bank. Last updated: 15 December 2020. Available at: https://world-bank-group-to-boost-nigerias-efforts-to-reduce-poverty
- 25. Weber, M., Palacios-Lopez, A., and Contreras-Gonz lez, I. M. (2020). Labor market impacts of COVID-19 in four African countries. [Online]. World Bank Blogs. Available at: https://blogs.worldbank.org/opendata/labormarket-impacts-covid-19-four-african-countries
- NBS [National Bureau of Statistics] (2021). Nigerian Gross Domestic Product Report: Q4 & FULL YEAR 2020 — Tables. National Bureau of Statistics. [Online]. Available at: https://nigerianstat.gov.ng/ resource/Q4_GDP_2020%20%20final%20Draft.xlsx
- Ovi, I. H. and Mahmud, N. (2019). Bangladesh pharmaceutical industry blooms bigger. *Dhaka Tribune*. [Online]. 22 August 2019. Available at: https://www.dhakatribune.com/business/2019/08/22/bangladeshpharmaceutical-industry-blooms-bigger
- NBS [National Bureau of Statistics] (2014). Nigerian Manufacturing Sector – Summary Report: 2010-2012. National Bureau of Statistics. [Online]. Available at: https://nigerianstat.gov.ng/download/260

Endnotes

- 29. NBS [National Bureau of Statistics] (2021). Nigerian Gross Domestic Product Report: Q4 & FULL YEAR 2020 — Tables. National Bureau of Statistics. [Online]. Available at: https://nigerianstat.gov.ng/ resource/Q4_GDP_2020%20%20final%20Draft.xlsx
- FAO [Food and Agriculture Organization of The United Nations] (2018). National gender profile of agriculture and rural livelihoods: Nigeria. FAO. [Online]. Available at: http://www.fao.org/documents/card/en/c/CAO818EN/
- NBS [National Bureau of Statistics] (2021). Nigerian Gross Domestic Product Report: Q4 & FULL YEAR 2020 — Tables. National Bureau of Statistics. [Online]. Available at: https://nigerianstat.gov.ng/ resource/Q4_GDP_2020%20%20final%20Draft.xlsx
- 32. All Africa (2011). Nigeria: Local Government Intervention Impact in Small Scale Farming. [Online]. 13 December 2011. Available at: https://allafrica.com/stories/201112140500.html
- 33. Goedde, L., Ooko-Ombaka, A., and Pais, G. (2019). Winning in Africa's agricultural market. [Online]. McKinsey. Last updated: 15 February 2019. Available at: https://www.mckinsey.com/industries/agriculture/ourinsights/winning-in-africas-agricultural-market
- 34. ENACT Africa [Enhancing Africa's Response to Transnational Organised Crime] (2019). Organised Crime Index: Africa 2019. Enhancing Africa's Response to Transnational Organised Crime. [Online] Available at: https://enactafrica.org/organised-crime-index
- 35. United Nations Nigeria (2020). The COVID-19 Pandemic in Nigeria: Impact on Crime, Security And The Rule Of Law — Brief 10. United Nations Nigeria. [Online]. Available at: https://nigeria.un.org/index.php/en/49557-covid-19-pandemic-nigeria-impact-crime-security-and-rule-law-brief-10-june-15-2020
- 36. For example, in the initial lockdown period the NHRC reported 105 complaints, 33 of which involved excessive use of violence, unlawful arrest (27 incidents) and extortion (13 incidents). NGOs have issued reports on extrajudicial killings and extortion by security agencies during lockdown including a study by Intersociety alleging NGN44B (USD120M) extorted from citizens by security agencies during lockdown from 30 March to 30 June 2020.
- 37. NHRC [National Human Rights Commission] (2020). National Human Rights Commission Press Release on Covid-19 Enforcement So Far Report on Incidents of Violation of Human Rights. [Online]. National Human Rights Commission. Last updated: 15 April 2020. Available at: https://www.nigeriarights.gov.ng/nhrc-media/press-release-on-covid-19-enforcement-so-far-report-onincidents-of-violation-of-human-rights.html
- 38. Intersociety. (2020). Nigerian Security Agencies Pocketed N₄₄B (\$120M) Bribes In 90 Days Enforcing Intra/Inter-State "Lockdowns". The Nigerian Voice. [Online]. 29 June 2020. Available at: https://www.thenigerianvoice.com/news/289323/nigerian-security-agencies-pocketed-n₄₄b-120m-bribes-in-9.html
- 39. McDougal, T., Hagerty, T., Inks, L., Ugo-Ike, C., Dowd, C., Conroy, S. and Ogabiela, D. (2015). The Effect of Farmer-Pastoralist Violence on Income: New Survey Evidence from Nigeria's Middle Belt States. The Economics of Peace and Security Journal, 10(01), 54–65.
- Ngbokai, R. (2020). Buhari Endorses Tough Action Against Rapists. Daily Trust. [Online]. 10 June 2020. Available at: https://dailytrust.com/buhari-endorses-tough-action-against-rapists

- 41. VOA [Voice of America] (2020). All 36 Nigerian Governors Declare State of Emergency Over Rapes and Violence. VOA News.
 [Online]. 12 June 2020. Available at: https://www.voanews.com/africa/all-36-nigeriangovernors-declare-state-emergency-over-rapes-and-violence
- Institute for Crime & Justice Policy Research (c 2018). Nigeria. [Online].
 World Prison Brief. Available at: https://www.prisonstudies.org/
 country/niaeria
- Federal Republic of Nigeria (2017). Economic Recovery & Growth Plan. Ministry of Budget and Planning. [Online]. Available at: https://estateintel.com/wp-content/uploads/2017/03/Nigeria-Economic-Refom-Plan-2.pdf
- NPC [National Planning Commission] (2015). Nigeria Integrated Infrastructure Master Plan (NIIMP). NPC. [Online]. Available at: http://www.niimp.gov.ng/
- Foster, V. and Pushak, N. (2011). Nigeria's Infrastructure: A Continental Perspective. Policy Research working paper; no. WPS 5686. World Bank. [Online]. Available at: https://openknowledge.worldbank.org/handle/10986/3450
- Oxford Business Group (2019). Nigeria's appeal to investors for infrastructure development. Oxford Business Group. [Online]. Last updated: 25 April 2019. Available at: https://oxfordbusinessgroup.com/news/nigeria%E2%80%99s-appeal-investors-infrastruc-ture-development
- World Bank Group (2018). Access to electricity (% of population) Nigeria. [Online]. World Bank: DataBank. Available at: https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?locations=NG
- 48. Transmission Company of Nigeria (2021). Again, New Peak Successfully Transmitted. [Online]. Transmission Company of Nigeria. Last updated on: 11 March 2021. Available at: https://www.tcn.org.ng/blog_post_sidebar110.php
- 49. World Bank Group (2016). Nigeria: Developing Housing Finance.
 World Bank. [Online]. Available at: http://documents1.worldbank.
 org/curated/en/102491481528326920/pdf/110897-WP-P131973-PUBLICHousingFinanceNigeriaweb.pdf
- Africa Housing News (2019). Bridging the Housing Deficit in Nigeria.
 [Online]. 3 March 2019. Available at: https://africahousingnews.com/2019/03/03/bridging-the-housing-deficit-in-nigeria/
- DFID [Department for International Development] (2020). Nigeria Investment Guide 2020. DFID. [Online]. Available at: https://nipc. gov.ng/wp-content/uploads/2020/02/NIPC-Guide_Web-Jan-2020. pdf
- 52. Federal Republic of Nigeria (c 2017). Nigeria's Intended Nationally Determined Contribution. Federal Republic of Nigeria. [Online]. Available at: https://www4.unfccc.int/sites/NDCStaging/pages/Party.aspx?party=NGA
- Oghifo, B. (2019). Nigeria: 'Nigeria's Green Economy Can Create \$250bn Investment Opportunity for Entrepreneurs'. All Africa. [Online]. 10 September 2019. Available at: https://allafrica.com/stories/201909100388.html

- 54. Mustapha, A. (2005). Ethnic Structure, Inequality and Governance of the Public Sector in Nigeria. Centre for Research on Inequality, Human Security and Ethnicity (CRISE). [Online]. Available at: https://assets.publishing.service.gov.uk/media/57ao8c97ed915d3cfdoo14aa/ wp18.pdf
- 55. Eberhard, D., Simons, G., and Fennig, C. (Eds.). (2020). *Ethnologue: Languages of Africa and Europe*. Orlando: SIL International.
- 56. UNFPA [United Nations Population Fund] (2019). State of World Population 2019: Unfinished Business, the Pursuit of Rights and Choices for All. United Nations Population Fund. [Online]. Available at: https:// www.unfpa.org/sites/default/files/pub-pdf/UNFPA_PUB_2019_ EN_State_of_World_Population.pdf
- 57. Silver, C. (2020) The Top 25 Economies in the World: Ranking the Richest Countries in the World. [Online]. Investopedia. Last updated: 24 December 2020. Available at: https://www.investopedia.com/insights/worldstop-economies/
- World Bank Group (2020). Literacy Rate, Adult Total (Percentage of People Ages 15 and above) — Nigeria. [Online]. World Bank. Last updated: 22 February 2021. Available at: https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=NG.
- 59. Naidoo, P. (2020). Nigeria Tops South Africa as the Continent's Biggest Economy. Bloomberg. [Online]. 3 March 2020. Available at: https://www.bloombergquint.com/business/nigeria-now-tops-south-africa-as-thecontinent-s-biggest-economy
- United Nations (2009). Nigeria Surpasses Hollywood as World's Second Largest Film Producer. [Online]. United Nations. Last updated: 5 May 2009. Available at: https://news.un.org/en/story/2009/05/299102-nigeriasurpasses-hollywood-worlds-second-largest-film-producer-un
- 61. Kuwonu, F. (2018). Music: Nigeria's New Export. *Africa Renewal.*[Online]. April 2018 July 2018. Available at: https://www.un.org/africarenewal/magazine/april-2018-july-2018/music-nige-ria%E2%80%ggs-new-export
- 62. UNICEF (c 2020). Nigeria: Education. [Online]. UNICEF. Available at: https://www.unicef.org/nigeria/education
- Aja-Okorie, U. (2013). Women Education in Nigeria: Problems and Implications for Family Role and Stability. European Scientific Journal, 9(28), 272–282.
- 64. PWC (2019). Insights from the Entertainment & Media Outlook: 2019-2023 — An African perspective. PWC. [Online]. Available at: https://www.pwc.co.za/en/assets/pdf/entertainment-and-me-dia-outlook-2019-2023.pdf
- 65. Olaoluwa, J. (2019). Nigeria's movie industry, Nollywood generates about \$1 billion yearly – Afreximbank. Nairametrics. [Online]. 7 October 2019. Available at: https://nairametrics.com/2019/10/07/nigerias-movieindustry-nollywood-generates-about-1-bil-lion-yearly-afreximbank/
- 66. Moudio, R. (2013). Nigeria's film industry: a potential gold mine?

 Africa Renewal. [Online]. May 2013. Available at: https://www.un.org/
 africarenewal/magazine/may-2013/nigeria%E2%80%99s-film-industrypotential-gold-mine

- 67. Id.
- Akwagyiram, A. (2016). Nigeria's music scene becomes a cultural export. Reuters. [Online]. 7 July 2016. Available at: https://www.reuters.com/article/us-nigeria-music-idUSKCNoZN124
- 69. ld.
- Akutu, G. (2019). Awaiting gains of Nigeria's Multi-billion Naira
 Fashion Industry. The Guardian. [Online]. 28 July 2019. Available at: https://guardian.ng/sunday-magazine/awaiting-gains-of-nige-rias-multi-billion-nairafashion-industry/
- 71. ld.
- Moudio, R. (2013). Nigerio's film industry: a potential gold mine?
 Africa Renewal. [Online]. May 2013. Available at: https://www.un.org/africarenewal/magazine/may-2013/nigeria%E2%80%99s-film-in-dustrypotential-gold-mine
- PwC (2017). Spotlight the Nigerian Film Industry. PwC. [Online]. Available at: https://www.pwc.com/ng/en/assets/pdf/spolight-the-nigeri-an-film-industry.pdf
- 74. Based on calculations from IMF (2019) and UN data (2019).
- 75. IMF [International Monetary Fund (2019)]. World Economic Outlook Update: Global Manufacturing Downturn, Rising Trade Barriers. International Monetary Fund. [Online]. Available at: https://www.imf.org/ en/Publications/WEO/Issues/2019/10/01/world-economic-outlook-october-2019
- United Nations (2019). World Population Prospects 2019, Volume I: Comprehensive Tables. United Nations, Department of Economic and Social Affairs, Population Division [Online]. Available at: https://population.un.org/wpp/Publications/Files/WPP2019_Volume-I_Comprehensive-Tables.pdf
- Shaw, T. M. and Fasehun, O. (1980). Nigeria in the World System: Alternative Approaches, Explanations, and Projections. The Journal of Modern African Studies, 18(4), pp. 551-573.
- Tuck, C (2000). Every Car or Moving Object Gone- The ECOMOG Intervention in Liberia. African Studies Quarterly, 4(1), 1–16. [Online]. Available at: https://sites.clas.ufl.edu/africanquarterly/files/ASQ-Vol-4-lssue-1.pdf
- 79. Tella, O. (2019). Nigeria is punching below its weight despite massive soft power capacity. The Conversation. [Online]. 5 February 2019. Available at: https://theconversation.com/nigeria-is-punch-ing-below-its-weightdespite-massive-soft-power-capacity-110804
- Cilliers, J., Schünemann, J., and Moyer, J. D. (2015). Power and influence in Africa: Algeria, Egypt, Ethiopia, Nigeria and South Africa. Africa Futures Paper, March 2015. Institute of Security Studies. [Online]. Available at: https://pardee.du.edu/sites/default/files/AfricanFu-turesNo14-V2.pdf.
- African Union (2019). Civil Society organizations urged to play "complimentary political roles". [Online]. African Union. Available at: https://au.int/pt/node/36920

- 82. Varella, S. (2019). Distribution of export value from Nigeria in 2019, by category. [Online]. Statista. Last update: 17 February 2021. Available at: https://www.statista.com/statistics/1119187/distribution-of-exportvalue-from-nigeria-by-category/
- 83. According to WTO trade forecast publicized on March 31st, 2021, two alternative scenarios are expected: "In the upside scenario, vaccine production and dissemination would accelerate, allowing containment measures to be relaxed sooner. This would be expected to add about 1 percentage point to world GDP growth and about 2.5 percentage points to world merchandise trade volume growth in 2021. Trade would return to its pre-pandemic trend by the fourth quarter of 2021. In the downside scenario, vaccine production does not keep up with demand and/or new variants of the virus emerge against which vaccines are less effective. Such an outcome could shave 1 percentage point off of global GDP growth in 2021 and lower trade growth by nearly 2 percentage points."
- 84. WTO [World Trade Organization] (2021). PRESS/876: World trade primed for strong but uneven recovery after COVID-19 pandemic shock. [Online]. World Trade Organization. Last updated: 31 March 2021. Available at: https://www.wto.org/english/news_e/pres21_e/pr876_e.htm
- 85. United Nations (2019). World Population Prospects 2019, Volume I: Comprehensive Tables. United Nations, Department of Economic and Social Affairs, Population Division [Online]. Available at: https:// population.un.org/wpp/Publications/Files/WPP2019_Volume-I_ Comprehensive-Tables.pdf
- 86. ld.
- 87. UN-HABITAT [United Nations Human Settlement Programme]
 (2020). Sub-Saharan Africa Atlas. UN-HABITAT. [Online]. Available at:
 https://unhabitat.org/sites/default/files/2020/07/atlasroaf_v02_
 final-compressed.pdf
- Cohen, N. (2019). Nigeria falls short of reaping reward from its population bulge. Financial Times. [Online]. 22 November 2019. Available at: https://www.ft.com/content/69f907ce-e127-11e9b8e0-026e07cbe5b4
- BP (2020). Energy Outlook, 2020 Edition. BP. [Online]. Available at: https://www.bp.com/content/dam/bp/business-sites/en/global/ corporate/pdfs/energy-economics/energyoutlook/bp-energy-outlook-2020.pdf
- Browning, N. (2021). Factbox: Pandemic brings forward predictions for peak oil demand. Reuters. [Online]. 21 April 2021. Available at: https://www.reuters.com/business/energy/pandemic-brings-forward-predictions-peakoil-demand-2021-04-21
- 91. Randall, T. and Warren, H. Peak of Oil is Suddenly Upon Us.

 Bloomberg. [Online]. 1 December 2020. Available at: https://www.bloomberg.com/graphics/2020-peak-oil-era-is-suddenly-up-on-us/92
- Randall, T. and Warren, H. Peak of Oil is Suddenly Upon Us.
 Bloomberg. [Online]. 1 December 2020. Available at: https://www.bloomberg.com/graphics/2020-peak-oil-era-is-suddenly-up-on-us/
- 93. BloombergNEF (2020). Battery Pack Prices Cited Below \$100/kWh for the First Time in 2020, While Market Average Sits at \$137/kWh.

- BloombergNEF. [Online]. 15 December 2020. Available at: https://about.bnef.com/blog/battery-pack-prices-cited-below-100-kwh-for-the-first-time-in-2020-whilemarket-average-sits-at-137-kwh/
- 94. Carey, N. and Soderpalm, H. (2021). Betting on death of petrol cars, Volvo to go all electric by 2030. *Reuters*. [Online]. 4 May 2021. Available at: https://www.reuters.com/business/autos-trans-portation/betting-deathpetrol-cars-volvo-go-all-electric-by-2030-2021-03-02/
- 95. Wayland, M. (2021). General Motors plans to exclusively offer electric vehicles by 2035. CNBC. [Online]. 28 January 2021. Available at: https://www.cnbc.com/2021/01/28/general-motors-plans-to-exclusively-offerelectric-vehicles-by-2035.html
- 96. Carey, N. and Alkousaa, R. (2021). BMW expects at least half of sales to be electric cars by 2030. Reuters. [Online]. 17 March 2021. Available at: https://www.reuters.com/business/ autos-transportation/bmw-expectsleast-half-sales-be-electriccars-by-2030-2021-03-17/
- Piovaccari, G., Guillaume, G., and Carey, N. (2021). "No dinosaur" –
 Carmaker Stellantis steps up electric ambitions. Reuters. [Online]. 3
 March 2021. Available at: https://www.reuters.com/article/us-stel-lantis-resultsidUSKBN2AVoUE
- Burch, I. and Gilchrist, J. (2020). Survey of Global Activity to Phase Out Internal Combustion Engine Vehicles, March 2020 Revision. The Climate Center. [Online]. Available at: https://theclimatecenter.org/wpcontent/uploads/2020/03/Survey-on-Global-Activities-to-Phase-Out-ICE-Vehicles-update-3.18.20-1.pdf
- 99. Paris, London, Los Angeles, Copenhagen, Amsterdam, Auckland, Austin, Barcelona, Berlin, Cape Town, Heidelberg, Jakarta, Madrid, Medellin, Mexico City, Milan, Moscow, Oslo, Quito, Rio de Janeiro, Rome, Rotterdam, Santiago, Seattle, Seoul, Tokyo, Vancouver, Warsaw, Birmingham, Honolulu, Liverpool, Oxford, Greater Manchester, Santa Monica, West Hollywood.
- 100. C40 Cities (NA). Our Commitment to Green and Healthy Streets: Fossil Fuel Free Streets Declaration. [Online]. C40 Cities. Available at: https://www.c40.org/other/green-and-healthy-streets
- 101. IMF [International Monetary Fund]. (2020). Special Series on Fiscal Policies to Respond to COVID-19: Greening the recovery. IMF. [Online]. Available at: https://www.imf.org/-/media/Files/Publications/covid19-specialnotes/en-special-series-on-covid-19-greening-the-recovery.ashx
- 102. Guterres, A. (2020). Secretary-General's address at Columbia University: The State of the Planet'. [Online]. United Nations. Last updated: 2 December 2020. Available at: https://www.un.org/sg/en/content/sg/speeches/2020-12-02/address-columbia-university-the-state-of-theplanet
- 103. Friedman, L. and Tankersley, J. (2021). Biden's Recovery Plan Bets Big on Clean Energy. NY Times. [Online]. 23 March 2021. Available at: https://www.nytimes.com/2021/03/23/climate/biden-infrastructure-stimulusclimate-change.html
- 104. European Commission (2020). Recovery Plan for Europe. [Online]. European Commission. Available at: https://ec.europa.eu/info/strategy/recovery-plan-europe_en

- 105. Global Center on Adaptation (2020). Integrated Responses to Building Climate and Pandemic Resilience in Africa. Global Center on Adaptation. [Online]. Available at: https://gca.org/reports/integrated-responses-tobuilding-climate-and-pandemic-resilence-in-africa/
- 106. Aton, A. (2021). Biden Tells Congress Climate Action and Job Creation Are the Same. Scientific American. [Online]. 29 April 2021. Available at: https://www.scientificamerican.com/article/biden-tells-congress-climateaction-and-job-creation-are-the-same/
- 107. European Commission (2019). A European Green Deal Striving to be the first climate-neutral continent. [Online]. European Commission. Available at: https://ec.europa.eu/info/strategy/prior-ities-2019-2024/european-green-deal_en
- 108. UNFCCC (2021). Climate Ambition Alliance: Net Zero 2050. [Online]. Available at: https://climateaction.unfccc.int/views/cooperative-initiative-details.html?id=94
- 109. The Economist (2020). China aims to cut its net carbon-dioxide emissions to zero by 2060. *The Economist*. [Online]. 26 September 2020. Available at: https://www.economist.com/china/2020/09/24/china-aims-to-cutits-net-carbon-dioxide-emissions-to-ze-ro-by-2060
- 110. McCurry, J. (2020). South Korea vows to go carbon neutral by 2050 to fight climate emergency. The Guardian. [Online]. 28 October 2020. Available at: https://www.theguardian.com/world/2020/oct/28/southkorea-vows-to-go-carbon-neutral-by-2050-to-fight-climate-emergency
- 111. Blinken, A. (2021). The United States Officially Rejoins the Paris Agreement. [Online]. U.S. Department of State. Last updated: 19 February 2021. Available at: https://www.state.gov/the-united-states-official-ly-rejoinsthe-paris-agreement/
- 112. UNCTAD [United Nations Conference on Trade and Development] (2019). The impact of rapid technological change on sustainable development. UNCTAD. [Online]. Available at: https://unctad.org/ webflyer/impact-rapidtechnological-change-sustainable-development
- 113. Qobo, M. & Mzyece, M. (2020). African countries need to seize opportunities created by US-China tensions. *The Conversation*. [Online]. 15 June 2020. Available at: https://theconversation.com/ african-countries-need-toseize-opportunities-created-by-us-china-tensions-140448
- 114. Bradshaw, T., Kruppa, M., and Munshi, N. (2020). Stripe moves into Africa with Paystack deal. Financial Times. [Online]. 15 October 2020. Available at: https://www.ft.com/content/bebga517-ea27-4d52-8544-43c8fdfa2f1d
- 115. 1Princewill, N. (2021). Nigerian startup Flutterwave secures \$170 million in capital injections from investors, now valued at over \$1 billion. CNN. [Online]. Available at: https://edition.cnn.com/2021/03/10/africa/startupflutterwave-funding-intl/index.html
- 116. Lumen Learning (2021). Introduction to Computer Applications and Concepts, Reading: The Internet. [Online]. Lumen Learning. Available at: https://courses.lumenlearning.com/computerapps/chapter/readingthe-internet/

- 117. IRENA [International Renewable Energy Agency] (2020). Renewables Increasingly Beat Even Cheapest Coal Competitors on Cost. [Online]. IRENA. Last updated: 2 June 2020. Available at: https://www.irena.org/newsroom/pressreleases/2020/Jun/Renewables-Increasing-ly-Beat-Even-Cheapest-Coal-Competitors-on-Cost
- 118. Volvo, Jaguar, and Bentley have announced formal plans to abandon fossil fuels, while General Motors has said it plans to become a fully electric automaker by 2035. BMW expects that at least half of its sales to be zero emission vehicles by 2030 and Volkswagen announced that more than 70% of its European sales and 50% of its US and China markets will be of electric vehicles by 2030. Also, Stellantis, product of the merger between Fiat Chrysler and PSA Groupe, plans to have fully electric or hybrid versions of all its vehicles in Europe by 2025.
- 119. UBS (2020). Q-Series: Tearing Down the Heart of an Electric Car Lap 2: Cost Parity a Closer Reality?. [Online]. UBS. Available at: https://www.ubs.com/global/en/investment-bank/in-focus/2020/heart-of-electric-car.html
- 120. These include the IMF, the OECD, and the UN, along with 54 African leaders and publicly financed development banks.
- 121. IMF [International Monetary Fund] (2020). Climate Change: Green Recovery. International Monetary Fund. [Online]. Available at: https://www.imf.org/en/Topics/climate-change/green-recovery
- 122. OECD [Organisation for Economic Co-operation and Development] (NA). Focus on green recovery. [Online]. Organisation for Economic Co-operation and Development. Available at: https://www.oecd.org/coronavirus/en/themes/green-recovery
- 123. PAGE [Partnership for Action on Green Economy] (2020). Greening the Recovery. [Online]. PAGE. Available at: https://www.un-page. org/Greening-the-Recovery
- 124. Global Center on Adaptation (2020). Is a green recovery in Africa possible after Covid-19?. [Online]. Global Center on Adaptation. Last updated: 22 May 2020. Available at: https://gca.org/is-a-green-re-covery-in-africapossible-after-covid-19/
- 125. Finance in Common (2020). Joint Declaration of All Public Development Banks in the World. [Online]. Last updated: 12 November 2020. Available at: https://financeincommon.org/declarations
- 126. UNEP [United Nations Environment Programme] (2020). About green economy. [Online]. UNEP. Available at: https://www.unenvironment.org/explore-topics/green-economy/about-green-economy
- 127. Perez, C. (2017). Smart green growth: innovation for the new 'good life' and a prosperous society. Oslo: Norwegian Seminar on the Green Economy, May 2017. Available at: https://www.bi.edu/globalassets/forskning/centre-for-green-growth/confrences/perez-oslo-green-seminar-2017.pdf
- 128. IMF [International Monetary Fund]. (2020). Special Series on Fiscal Policies to Respond to COVID-19: Greening the recovery. IMF. [Online]. Available at: https://www.imf.org/-/media/Files/Publications/covid19-specialnotes/en-special-series-on-covid-19-greening-the-recovery.ashx

- 129. European Commission (2020). Recovery Plan for Europe. [Online]. European Commission. Available at: https://ec.europa.eu/info/strategy/recovery-plan-europe_en
- 130. 130 Global Center on Adaptation (2020). Integrated Responses to Building Climate and Pandemic Resilience in Africa. Global Center on Adaptation. [Online]. Available at: https://gca.org/reports/integrated-responses-tobuilding-climate-and-pandemic-resilence-in-africa/
- 131. UNEP (2020). African Ministers of the Environment commit to support a green COVID-19 recovery plan. [Online]. UNEP. Last update: 4 December 2020. Available at: https://www.unenvironment.org/ news-andstories/press-release/african-ministers-environment-commit-support-green-covid-19-recovery
- 132. AFDB [African Development Bank] (2020). The African Development Bank launches \$50 million facility to support energy access companies through and beyond the COVID-19 pandemic. [Online]. AFDB. Last updated: 4 December 2020. Available at: https://www.afdb.org/en/news-and-beyond-covid-19-pandemic-39746
- 133. EIB [European Investment Bank] (2020). EIB and Afreximbank direct EUR 300m of support to African COVID response. [Online]. EIB. Last updated: 5 August 2020. Available at: https://www.eib.org/en/press/all/2020-218-eib-and-afreximbank-direct-eur-300m-of-support-to-african-covid-response#
- 134. AfDB [African Development Bank]. (2020). Green Growth Initiative. [Online]. AfDB. Available at: https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/green-growth-initiative
- 135. UNEP [United Nations Environment Programme] (2015). Building Inclusive Green Economies in Africa Experience and Lessons Learned, 2010-2015. UNEP. [Online]. Available at: https://www.unep.org/resources/report/building-inclusive-green-economies-africa-ex-perience-and-lessonslearned-2010-2015
- 136. European Commission (2019). A European Green Deal Striving to be the first climate-neutral continent. [Online]. European Commission. Available at: https://ec.europa.eu/info/strategy/prior-ities-2019-2024/european-green-deal_en
- 137. BlackRock (2020). Introduction to BlackRock. [Online]. BlackRock. Available at: https://www.blackrock.com/sg/en/introduction-to-blackrock
- 138. Fink, L. (2020). Larry Fink's 2020 Letter to CEOs: A Fundamental Reshaping of Finance. [Online]. BlackRock. Available at: https://www.blackrock.com/corporate/investor-relations/2020-larry-fink-ceo-letter
- 139. AFD [Agence Fran aise de D veloppment] (2020). A partnership with BlackRock to direct investment into greener finance in developing countries. [Online]. AFD. Available at: https://www.afd.fr/en/actualites/black-rockclimate-finance-partnership
- 140. Schwab, K. (2020). Now is the time for a 'great reset'. [Online]. World Economic Forum. Last updated: 30 June 2020. Available at: https://www.weforum.org/agenda/2020/06/now-is-the-time-for-a-great-reset/

- 141. WBCSD. (2020). Reinventing Capitalism: a transformation agenda –
 Vision 2050 Issue Brief. WBCSD. [Online]. Available at: https://www.
 wbcsd.org/Overview/About-us/Vision-2050-Refresh/Resources/
 Reinventingcapitalism-a-transformation-agenda
- 142. Murray, A. (2020). Denmark set to end all new oil and gas exploration. BBC News. [Online]. 4 December 2020. Available at: https://www.bbc.com/news/business-55184580
- 143. UNEP [United Nations Environment Programme] (NA). Net-zero Banking Alliance. [Online]. Available at: https://www.unepfi.org/ net-zero-banking/
- 144. UNFCCC [United Nations Framework Convention on Climate Change] (2021). New Financial Alliance for Net Zero Emissions Launches.
 [Online]. UNFCCC. Last updated: 21 April 2021. Available at: https://unfccc.int/news/new-financial-alliance-for-net-zero-emis-sions-launches
- 145. PCAF [Partnership for Carbon Accounting Financials]. About. [Online]. PCAF. Available at: https://carbonaccountingfinancials. com/about
- 146. Net-zero initiatives and networks led by or involving the private sector, include Alliance of CEO Climate Leaders; Business Ambition for 1.5 C; Certified B Corporation; Exponential Roadmap Initiative; Fashion Charter for Climate Action; Glasgow Financial Alliance for Net Zero; Net-Zero Asset Managers Alliance; Net-Zero Asset Owners Alliance; Net-Zero Banking Alliance; Net Zero by 2050 (The B Team); Paris Aligned Investment Initiative; Pledge to Net Zero; SME Climate Hub; and The Climate Pledge.
- 147. The Manhattan Project was a research and development effort that produced the first nuclear weapons during the World War II, involving an immense number of people and high volumes of financial resources. In turn, the term moonshot, inspired by the national effort in the US in the 1960s to land a man on the moon following the challenge by President John F. Kennedy; the term is used in the technology industry to classify ambitious, exploratory projects without expectations of short/mid-term profitability or benefits.
- 148. Mzezewa, T. (2021). Coming Soon: The 'Vaccine Passport'. The New York Times. [Online]. 4 February 2021. Available at: https://www. nytimes.com/2021/02/04/travel/coronavirus-vaccine-passports. html
- 149. Johnson, A. (2021). How Africa's largest city is staying afloat. BBC. [Online]. 22 January 2021. Available at: https://www.bbc.com/ future/article/20210121-lagos-nigeria-how-africas-largest-city-isstaying-afloat
- 150. Abdullahi, M. (2020). How Climate Change Is Undermining Peace And Security In Nigeria. *HumAngle*. [Online]. 3 October 2020. Available at: https://humangle.ng/how-climate-change-is-under-mining-peace-andsecurity-in-nigeria/
- 151. China has the most sophisticated surveillance system of its citizen able to recognize any citizen in a matter of seconds. The state has amassed an astonishing amount of data about its citizens, which it uses to punish people for even minor deviations from expected norms.
- 152. Davies, D. (2021). Facial Recognition And Beyond: Journalist Ventures Inside China's 'Surveillance State'. *NPR*. [Online].

- 5 January 2021. Available at: https://www.npr. org/2021/01/05/953515627/facial-recognition-andbeyond-journalist-ventures-inside-chinas-surveillance-sta
- 153. Israel has a highly developed surveillance technology sector developed from experience policing occupied territories. Israel is now a global leader in this sector and these technologies are now one of the major exports of Israel.
- 154. Kane, A. (2016). How Israel Became a Hub for Surveillance Technology. The Intercept. [Online]. 17 October 2016. Available at: https://theintercept.com/2016/10/17/how-israel-became-a-hub-for-surveillancetechnology/
- 155. In China which has amassed vast data on its citizens, it has been found that private contractors and middlemen have wide access to personal data collected by the Chinese government.
- 156. Mozur, P. and Krolik, A. (2019). A Surveillance Net Blankets China's Cities, Giving Police Vast Powers. The New York Times. [Online]. 17 December 2019. Available at: https://www.nytimes.com/2019/12/17/technology/china-surveillance.html
- 157. These are the equivalent of the self- sustaining communities in Aba and the illegal oil economies that steal and refine crude oil from pipeline.
- 158. Taylor, A. (2013). Nigeria's Illegal Oil Refineries. The Atlantic. [Online]. 15 January 2013. Available at: https://www.theatlantic.com/ photo/2013/01/nigerias-illegal-oil-refineries/100439/
- 159. The Electronic Frontier Foundation (EFF) is the leading non-profit organization defending civil liberties in the digital world. EFF uses the unique expertise of leading technologists, activists, and attorneys in its efforts to defend free speech online, fight illegal surveillance, advocate for users and innovators, and support freedomenhancing technologies.
- 160. EFF [Electronic Frontier Foundation] (c 2021). About EFF. [Online]. EFF. Available at: https://www.eff.org/about
- 161. Wide, V. (2016). A Brief Guide to Combatting Mass Surveillance. [Online]. The Science Creative Quarterly. Last updated: 13 December 2016. Available at: https://www.scq.ubc.ca/a-brief-guide-to-combatting-masssurveillance/
- 162. Biometric identification systems have been associated with the mark of the beast referred to in the Book of Revelations.
- 163. Whitehead, J. W. (2011). The National Biometric ID Card: The Mark of the Beast?. Huffpost. [Online]. May 25 2011. Available at: https://www.huffpost.com/entry/the-national-biometric-id_b_542821
- 164. This is what happened to John Poindexter who was head of the surveillance program Total Information Awareness. Jittery resisters started to track and publish his personal data online.
- 165. Gikandi, h. (2020). Nigerians in the diaspora join #EndSARS protests. The World. [Online]. 23 October 2020. Available at: https://www.pri.org/stories/2020-10-23/nigerians-diaspora-join-end-sars-protests

- 166. Ecker, U., Jetter, M., and Lewandowsky, S. (2020). How Trump uses Twitter to distract the media – new research. The Conversation. [Online]. 12 November 2020. Available at: https://theconversation.com/howtrump-uses-twitter-to-distract-the-media-new-re-search-149847
- 167. Folkenflik, D. (2017). Facebook Scrutinized Over Its Role In 2016's Presidential Election. NPR. [Online]. 26 September 2017. Available at: https://www.npr.org/2017/09/26/553661942/facebook-scrutinizedover-itsrole-in-2016s-presidential-election
- 168. Canon, G. (2020). Facebook's 'monopoly' must be split up, US and states say in major lawsuits. *The Guardian*. [Online]. 9 December 2020. Available at: https://www.theguardian.com/technology/2020/dec/09/facebooklawsuit-antitrust-whatsapp-instagram-ftc
- 169. Hatmaker, T. (2020). Google slammed for 'monopoly power' in new antitrust lawsuit from 35 states. TechCrunch. [Online]. 17 December 2020. Available: https://techcrunch.com/2020/12/17/google-anti-trustlawsuit-new-york-colorado-35-states-search/
- 170. Keown, C. (2020). Facebook, Twitter, Google and other tech giants join forces to fight coronavirus fake news. Market Watch. [Online]. 17 March 2020. Available at: https://www.marketwatch.com/story/facebook-twittergoogle-and-other-tech-giants-join-forces-to-fight-coronavirus-fake-news-2020-03-17
- 171. Gbenga, A. M. (2019). Google project brings internet access to Africa's remote areas using balloons. Ventures Africa. [Online]. 17 December 2019. Available at: https://venturesafrica.com/google-project-brings-internetaccess-to-africas-remote-areas-using-balloons/
- 172. Technology Mirror (2020). Nigerian Government Mulls Policy on Zero Rating for Educational Websites. *Technology Mirror*. [Online]. 28 September 2020. Available at: https://technologymirror.com.ng/nigeriangovernment-mulls-policy-on-zero-rating-for-education-al-websites/
- 173. VOA [Voice of America] (2018). Google Launches Free Wi-Fi Hotspot Network in Nigeria. VOA News. [Online]. 26 July 2018. Available at: https://www.voanews.com/silicon-valley-technology/googlelaunches-free-wi-fihotspot-network-nigeria
- 174. News24 (2018). Silicon Valley eyes Africa as new tech frontier.

 News24. [Online]. 15 July 2018. Available at: https://www.news24.
 com/fin24/Companies/ICT/silicon-valley-eyes-africa-as-new-tech-frontier-20180715
- 175. Kazeem, Y. (2020). Facebook is moving closer to local talent and key markets with a second African office in Nigeria. Quartz Africa. [Online]. 19 September 2020. Available at: https://qz.com/africa/1905838/facebook-toopen-africa-office-in-lagos-nige-ria-in-2021/
- 176. Ward, P. (2016). Welcome to Yaba, Nigeria's Silicon Valley. *Culture Trip.* [Online]. 3 November 2016. Available at: https://theculturetrip.com/africa/nigeria/articles/welcome-to-yaba-nigerias-sili-con-valley/
- 177. Facebook (c 2021). Facebook for government, politics and advocacy. [Online]. Available at: https://www.facebook.com/gpa

- 178. Wong, J. I. (2016). Facebook (FB) has signed up Singapore's entire 143,000-employee civil service to its Workplace chat platform. Quartz. [Online]. 10 November 2016. Available at: https://az.com/833786/facebookfb-has-signed-up-singapores-entire-143000-employee-civil-service-to-its-workplace-chat-platform/
- 179. Salaudeen, A. (2020). Netflix partners with Mo Abudu to develop original content from Nigeria. CNN. [Online]. 12 June 2020. Available at: https://edition.cnn.com/2020/06/12/media/netflix-nigeria-deal/index.html
- 18o. Jhuria, M., Kumar, A., and Borse, R. (2013). Image processing for smart farming: Detection of disease and fruit grading. 2013 IEEE Second International Conference on Image Information Processing (ICIIP-2013). 9-11 December. Shimla, India. DOI: 10.1109/ICIIP.2013.6707647.
- 181. Heath, N. (2019). How Estonia became an e-government power-house. TechRepublic. [Online]. 19 February 2019. Available at: https://www.techrepublic.com/article/how-estonia-became-an-e-gov-ernmentpowerhouse/
- 182. Quang, J.J., Biancardi, A., and Moyen, P. (2020). Using AI and ML to Detect Corruption and Fraud Schemes. Corporate Compliance Insights. [Online]. 22 October 2020 Available at: https://www.corporatecomplianceinsights.com/ai-ml-detect-corruption-fraud/
- 183. Priezkalns, E. (2020). Could Al Be Used to Stop Corruption?. Commsrisk. [Online]. 14 February 2020. Available at: https://commsrisk.com/could-ai-be-used-to-identify-corruption/
- 184. Toonders, J. (2014). Data Is the New Oil of the Digital Economy. Wired. [Online]. July 2014. Available at: https://www.wired.com/insights/2014/07/data-new-oil-digital-economy/
- 185. Fashae, O. A. and Onafeso, O. D. (2011). Impact of climate change on sea level rise in Lagos, Nigeria. International Journal of Remote Sensing, 32(24), pp 9811–9819. DOI: 10.1080/01431161.2011.581709
- 186. NOAA (2021). How is sea level rise related to climate change?. [Online]. NOAA. Last updated: 26 February 2021. Available at: https://oceanservice.noaa.gov/facts/sealevelclimate.html
- 187. Matyus, A. (2020). Unplugging for 24 hours is a luxury that most people can't afford. Digital Trends. [Online]. 6 March 2020. Available at: https:// www.digitaltrends.com/news/national-day-of-unplugging-luxury-privilege/
- 188. Konie, N. (2019). The complicated truth about China's social credit system. Wired UK. [Online]. 7 June 2019. Available at: https://www.wired.co.uk/article/china-social-credit-system-explained
- 189. Sottek, T. C. and Kopfstein, J. (2013). Everything you need to know about PRISM. The Verge. [Online]. 13 July 2013. Available at: https://www.theverge.com/2013/7/17/4517480/nsa-spying-prism-surveil-lance-cheat-sheet
- 190. Holmes, D. Can social media swing votes in this election campaign?. (2013). The Conversation. [Online]. 29 August 2013. Available at: https://theconversation.com/can-social-media-swing-votes-in-this-electioncampaian-17679
- 191. Xiao, B. (2021) Google pulled its service from China more than a decade ago — can Australia learn from that?. ABC News. [Online].

- 29 January 2021. Available at: https://www.abc.net.au/news/2021-01-30/google-leaveaustralia-what-to-learn-from-china-legislation-law/13102112
- 192. Woodhams, S. (2019). Huawei, Africa and the global reach of surveillance technology. DW. [Online]. 12 September 2019. Available at: https://www.dw.com/en/huawei-africa-and-the-global-reach-of-surveillancetechnology/a-50398869
- 193. BudgIT (2015). The State of States. BudgIT. [Online]. Available at: https://www.yourbudgit.com/wpcontent/uploads/2015/11/ THE-FATE-OF-STATES-Final1.pdf
- 194. Broughel, J. and Thierer, A. (2019). Technological innovation and economic growth: A brief report on the evidence. Mercatus Research, Mercatus Center, George Mason University, Arlington, VA, USA. Available at: https://www.mercatus.org/system/files/broughel-technological-innovation-mercatus-research-v1.pdf
- 195. Nelson, R. R. (Ed.) (2018). Modern evolutionary economics: An overview. Cambridge, UK: Cambridge University Press.
- 196. Adesida, O., Karuri-Sebina, G., and Resende-Santos, J. (Eds.) (2016). Innovation Africa: Emerging hubs of excellence. Bingley, UK: Emerald Group Publishing Limited.
- 197. Adeoti, J. O. (2016). Lecture (25th Convocation Lecture): Universities and the challenge of tackling innovation deficit in Nigeria. Minna: Federal University of Technology, 26 February 2016. Available at: https://www.researchgate.net/publication/295921071 UNIVERSITIES AND THE CHALLENGE OF TACKLING INNOVATION DEFICIT IN NIGERIA 25th Convocation Lecture Federal University of Technology Minna Delivered by Professor John O Adeoti Nigerian Institute of Soci
- 198. Dutta, S., Lanvin, B., and Wunsch-Vincent, S. (Eds.) (2020). The Global Innovation Index (GII) 2020: Who Will Finance Innovation?. Geneva: Cornell University, INSEAD, World Intellectual Property Organization (WIPO). Available at: https://www.globalinnovationindex.org/ Download.aspx?file=/userfiles/file/reportpdf/gii-fullreport-2020. pdf
- 199. Kruss G., Lorentzen, J., Petersen, I., Nabudere, D., Luutu, B., Tabaro, E., Mayanja, D., Adeoti, J., Odekunle, K., and Adeyinka, F. (2008). Analysis of the National System of Innovation in Nigeria: Context and emerging trends. Pretoria: HSRC.
- 200. Tian, M., Deng, P., Zhang, Y., and Salmador, M.P. (2018). How does culture influence innovation? A systematic literature review. *Management Decision*, 56(5), 1088–1107. Available at: https://doi. org/10.1108/MD-05-2017-0462
- 201. Schein, E. H., and Schein, P. (2016). Organizational culture and leadership (5th ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- 202. Mkandawire, T. (2014). On the Politics of Regional Integration. Keynote address at Tralac Annual Conference, 15 – 16 May 2014, Cape Town, South Africa.
- 203. Taylor, M. Z. (2016). The politics of innovation: Why some countries are better than others at science and technology. New York, NY: Oxford University Press.

204. Lee, K. (2019). The art of economic catch-up: Barriers, detours and leapfrogging in innovation systems. Cambridge, UK: Cambridge University Press.

205. ld.

- 206. OECD [Organisation for Economic Co-operation and Devel-opment] (2015). The innovation imperative in the public sector: Setting an agenda for action. Paris: OECD Publishing. Available at: http://dx.doi.org/10.1787/9789264236561-en
- 207. Adeoti, J. O. (2002). Building technological capability in the less developed countries: The role of a national system of innovation. Science and Public Policy, 29(2), 95–104. Available at: https://doi.org/10.3152/147154302781781083
- 208. DST [Department of Science and Technology] (2019). White paper on science, technology and innovation: Science, technology and innovation enabling inclusive and sustainable South African development in a changing world. DST. [Online]. Available at: https://www.gov.za/sites/default/files/gcis_document/201912/white-paperscience-technology-and-in-novation.pdf
- 209. Valkokari, K. (2015). Business, innovation, and knowledge ecosystems: How they differ and how to survive and thrive within them. *Technology Innovation Management Review*, 5(8), 18–24. Available at: https://timreview.ca/article/919
- 210. Hobsbawm, E. (1983). Introduction: Inventing traditions. In E. Hobsbawm & T. Ranger (Eds.), The invention of tradition (pp. 1–14). Cambridge, UK: Cambridge University Press.

211. ld.

- 212. OECD [Organisation for Economic Co-operation and Development] (2017). Fostering innovation in the public sector. Paris: OECD Publishing. Available at: https://doi.org/10.1787/9789264270879-en
- 213. Mazzucato, M., and Semieniuk, G. (2017). Public financing of innovation: new questions. Oxford Review of Economic Policy, 33(1), 24–48. Available at: https://doi.org/10.1093/oxrep/grw036
- 214. Ping, L. (2013). China. In: Scerri, M. and Lastres, H. M. M. (Eds.). The Role of the State. BRICS National Innovation System series, International Development Research Centre (IDRC), Canada. Available at: https://idlbnc-idrc.dspacedirect.org/bitstream/handle/1062sf/50905/IDL-50905.pdf
- 215. DST [Department of Science and Technology] (2019). White paper on science, technology and innovation: Science, technology and innovation enabling inclusive and sustainable South African development in a changing world. Available at: https://www.gov.za/sites/default/files/gcis_document/201912/white-paper-sciencetechnology-and-inno-yation.pdf
- 216. Scerri, M. and Lastres, H. M. M. (Eds.) (2013). The Role of the State. BRICS National Innovation System series, International Development Research Centre (IDRC), Canada. Available at: https://idl-bncidrc.dspacedirect.org/bitstream/handle/10625/50905/IDL-50905.pdf

- 217. ODI [Overseas Development Institute] (2009). Planning Tools: National Systems of Innovation (NSI). [Online]. ODI. Available at: https://odi.org/en/publications/planning-tools-national-systems-of-innovation-nsi/
- 218. Masinda, M.T. (1998). National Systems of Innovation: Implications on Science and Technology policies in Sub-Saharan Africa. Centre for Policy Research on Science and Technology (CPROST) Report # 98-05. Available at: https://core.ac.uk/download/pdf/56377561.pdf

219. ld.

220. ld.

- 221. Adeoti, J. O. (2016). Lecture (25th Convocation Lecture): Universities and the challenge of tackling innovation deficit in Nigeria. Minna: Federal University of Technology, 26 February 2016. Available at: <a href="https://www.researchgate.net/publication/295921071_UNIVERSITIES_AND_THE_CHALLENGE_OF_TACKLING_INNOVATION_DEFICIT_IN_NIGERIA_25th_Convocation_Lecture_Federal_University_of_Technology_Minna_Delivered_by_Professor_John_O_Adeoti_Nigerian_Institute_of_Soci
- 222. Sesay, B., Yulin, Z., and Wang, F. (2018). Does the national innovation system spur economic growth in Brazil, Russia, India, China and South Africa economies? Evidence from panel data. South African Journal of Economic and Management Sciences, 21(1), 1–12. Available at: https://dx.doi.org/10.4102/sajems.v21i1.1647
- 223. Casadella, V. and Uzunidis, D. (2017). National innovation systems of the South, innovation and economic development policies: A multidimensional approach. Journal of Innovation Economics & Management, 23(2), 137–157.
- 224. Fuerth, L. S. (2009). Foresight and anticipatory governance. Foresight, 11(4), 14–32.

225. ld.

- 226. DST [Department of Science and Technology] (2019). White paper on science, technology and innovation: Science, technology and innovation enabling inclusive and sustainable South African development in a changing world. DST. [Online]. Available at: https://www.gov.za/sites/default/files/gcis_document/201912/white-paper-science-technology-and-innovation.pdf
- 227. CSF [Singapore Centre for Strategic Futures] (c 2021). Centre for Strategic Futures. [Online]. Singapore Centre for Strategic Futures. Available at: https://www.csf.gov.sg
- 228. Scalable Analysis (2020). To "Singaporize" Singapore's Strategic Foresight and Ecosystem Approach, 21 March 2020. Available at: https://medium.com/open-source-futures/to-singaporize-singapores-ecosystemapproach-ad51f4efb4a5
- 229. Parliament of Finland (c 2021). Committee for the Future. [Online]. Parliament of Finland. Available at: https://www.eduskunta.fi/EN/valiokunnat/tulevaisuusvaliokunta/Pages/default.aspx
- 230. Koh, W. T. H. (2006). Singapore's transition to innovation-based economic growth: Infrastructure, institutions and government's role. R&D Management, 36(2), 143–160.

- 231. Soo, Z. (2019). Creating an innovation culture Singapore's not-so-secret formula to becoming a regional tech hub. South China Morning Post, 6 September 2019. Available at: https://sg.news.yahoo.com/creatinginnovation-culture-singapore-not-085619586.html
- 232. Lee, K. (2019). The art of economic catch-up: Barriers, detours and leapfrogging in innovation systems. Cambridge, UK: Cambridge University Press.
- 233. ld.
- 234. Wallsten, S. (2003). Regulation and Internet Use in Developing Countries. Policy Research Working Paper; No. 2979. World Bank. [Online]. Available at: https://openknowledge.worldbank.org/ handle/10986/19042
- 235. World Bank Group (2019). Nigeria Digital Economy Diagnostic Report. World Bank. [Online]. Available at: http://documents1. worldbank.org/curated/en/387871574812599817/pdf/Nigeria-Digital-Economy-Diagnostic-Report.pdf
- 236. Lenihan, H. (2011). Enterprise policy evaluation: Is there a 'new' way of doing it? *Evaluation and Program Planning*, 34(4), 323–332. Available at: https://doi.org/10.1016/j.evalprogplan.2011.03.006
- 237. NEI Magazine [Nuclear Engineering International Magazine] (2017). Second thoughts on South Africa's pebble-bed reactor. [Online]. 2 April 2017. Available at: https://www.neimagazine.com/news/newssecondthoughts-on-south-africas-pebble-bed-reactor-5776340
- 238. Groenewald, Y. (2010). Money Rows over PBMR. *MailâGuardian*. [Online]. 23 April 2010. Available at: https://mg.co.za/article/2010-04-23-money-rows-over-pbmr/
- 239. Swart, G. (2015). Innovation Lessons Learned from the Joule EV Development. International Association for Management of Technology (IAMOT) 2015 Conference Proceedings. 8-11 June 2015. Cape Town, South Africa. Available at: https://www.researchgate.net/publication/280221310 Innovation lessons learned from the Joule EV Development
- 240. Lütkenhorst, W., Altenburg, T, Pegels, A., and Vidican, G. (2014). Discussion Paper 28/2014: Green Industrial Policy: Managing Transformation under Uncertainty. German Development Institute. [Online]. Available at: https://www.die-gdi.de/uploads/media/DP_28.2014. pdf
- 241. UNFCCC [United Nations Framework Convention on Climate Change] (2018). Green Economy Overtaking Fossil Fuel Industry — FTSE Russel Report. UNFCCC. [Online]. Available at: https://unfccc.int/news/greeneconomy-overtaking-fossil-fuel-industry-ftse-rus-sel-report
- 242. IRENA [International Renewable Energy Agency] (2018). Accelerating SDG 7 Achievement. Policy Brief 13: Interlinkages Between Energy and Jobs. IRENA, European Commission, ILO, [Online]. Available at: https://sustainabledevelopment.un.org/content/documents/17495PB13.pdf
- 243. UNDP [United Nations Development Programme] and ILO [International Labour Organization] (2021). Nigeria Assessment of Climate Policies' Impact on Employment, Economy and Emissions. Unpublished draft.

- 244. Järvensivu, P., Toivanen, T., Vadén, T., Lähde, V., Majava, A., and Eronen, J. (2018). Governance of Economic Transition. Invited background document on economic transformation, to chapter: Transformation: The Economy, Global Sustainable Development Report 2019 drafted by the Group of independent scientists. [Online]. Available at: https://bios.fi/bios-governance_of_economic_transition.pdf
- 245. UNEP United Nations Environment Programme] (2014). The Business Case for Eco-innovation. UNEP. [Online]. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/10613/BCForEl_EN.pd-f?sequence=18isAllowed=v
- 246. Koirala, S. (2018). SMEs: Key Drivers of Green and Inclusive Growth.

 OECD. [Online]. Available at: https://www.oecd.org/greengrowth/ GGSD_2018_SME%20Issue%20Paper_WEB.pdf
- 247. WRI [World Resources Institute] (2019). Unlocking the Inclusive Growth Story of The 21st Century: Accelerating Climate Action In Urgent Times. WRI. [Online]. Available at: https://newclimateeconomy.report/2018/
- 248. World Economic Forum (2020). New Nature Economy Report II: The Future of Nature And Business. World Economic Forum. [Online].

 Available at: http://www3.weforum.org/docs/WEF_The_Future_Of_Nature_And_Business_2020.pdf
- 249. Ng'ombe, A. and Turner, J. (2019). People, Health and Nature: A Sub-Saharan African Transformation Agenda. Food and Land Use Coalition (FOLU). [Online]. Available at: https://www.foodandlandusecoa-lition.org/wp-content/uploads/2019/09/FOLUSubSaharanAfrica_EnglishFullReport.pdf
- 250. Frost & Sullivan (2019). Nigeria Polyethylene Market 2019-2023: Stability Driven by Economic Recovery, Expansion of Virgin Polymer Capacity & Growth in End-Use Industries. [Online]. Frost & Sullivan Online Store. Last updated: 11 December 2019. Available at: https://store.frost.com/analysis-of-polyethylene-market-innigeria-fore-cast-to-2023.html
- 251. Gbonegun, V. (2020). Experts list hinderances to green building developments in Nigeria. The Guardian. [Online]. 7 September 2020. Available at: https://guardian.ng/property/experts-list-hinderanc-es-to-greenbuilding-developments-in-nigeria/
- 252. Parsons, S. (2021). The Great Reset: 7 Environment and Sustainability Stories to Watch in 2021. [Online]. World Resources Institute. Last updated: 15 January 2021. Available at: https://www.wri.org/ insights/greatreset-7-environment-and-sustainability-stories-watch-2021
- 253. Coffin, M., Dalman, A., and Grant, A. (2021). Beyond Petrostates: The burning need to cut oil dependence in the energy transition. Carbon Tracker. [Online]. Available: https://carbontracker.org/reports/petrostatesenergy-transition-report/
- 254. SMEDAN [Small and Medium Enterprises Development Agency of Nigeria], NBS [National Bureau of Statistics] (2017). National Survey ff Micro Small & Medium Enterprises (MSMEs) 2017. SMEDAN, NBS. [Online]. Available at: http://smedan.gov.ng/images/NATIONAL%20 SURVEY%20OF%20MICRO%20SMALL%20&%20MEDIUM%20ENTER– PRISES%20(MSMES),%20%202017%201.pdf

- 255. WBCSD. (2020). Circular bioeconomy: The business opportunity contributing to a sustainable world. WBCSD. [Online]. Available at: https://www.wbcsd.org/Programs/Circular-Economy/Factor-10/ Resources/The-circular-bioeconomy-A-business-opportunity-contributing-to-a-sustainable-world
- 256. Okojie, J. (2019). Nigeria's green economy can create \$250bn investment opportunity for entrepreneurs Experts... as Home Fort Energy emerges winner of Climate Launch Pad Finals. Business Day. [Online]. 2 September 2019. Available at: https://businessaday.ng/enterpreneurs-experts/
- 257. Climate Watch (c 2021). Historical GHG Emissions. [Online]. Climate Watch Data. Available at: https://www.climatewatchdata.org/ghg-emissions?end_year=2018&source=CAlT&start_year=1990
- 258. Tan, S. (2017). Race in the Shipbuilding Industry: Cases of South Korea, Japan and China. *International Journal of East Asian Studies*. o6(01), 65–81. [Online]. Available at: https://ejournal.um.edu.my/index.php/IJEAS/article/view/18797/10214
- 259. ICCDI Africa (2020). Climate Change: Nigeria To Hold National Youth Consultation on NDC Enhancement. [Online]. ICCDI Africa. Last updated: 8 September 2020. Available at: https://medium.com/climatewed/climatechange-nigeria-to-hold-national-youth-con-sultation-on-ndc-enhancement-7130ef9315
- 260. World Bank Group (2021). Nigeria to Improve Electricity Access and Services to Citizens. [Online]. World Bank. Last updated: 5 February 2021. Available at: https://www.worldbank.org/en/news/pressre-lease/2021/02/05/nigeria-to-improve-electricity-access-and-ser-vices-to-citizens
- 261. REA [Rural Electrification Agency] (2020). Solar Power Naija Enabling 5 Million New Connections. [Online] REA. Available at: https://rea.gov.ng/solar-power-naija/
- 262. ld.
- 263. Nigerian Gas Flare Commercialization Programme. Available at: https://ngfcp.dpr.gov.ng/resources/guidelines/guideline-i-guidelines-for-grant-of-permit-to-access-flare-gas/
- 264. Transmission Company of Nigeria (2021). Again, New Peak Successfully Transmitted. [Online]. Transmission Company of Nigeria. Last updated on: 11 March 2021. Available at: https://www.tcn.org.ng/blog_post_sidebar110.php
- 265. Yusuf, R.O., Adeniran, J.A., Mustapha, S.I., Sonibare, J.A. (2019). Energy recovery from municipal solid waste in Nigeria and its economic and environmental implications. *Environmental Quality Management*. 28(03), 33–43. [Online]. Available at: https://doi.org/10.1002/tqem.21617
- 266. UNSTATS [United Nations Statistics Division]. Ensure sustainable consumption and production patterns. [Online]. UNSTATS. Available at: https://unstats.un.org/sdgs/report/2019/goal-12/
- 267. ILO [International Labour Organization] (2018). World Employment Social Outlook 2018: Greening with jobs. ILO. [Online]. Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_628654.pdf

- 268. ILO [International Labour Organization] (2018). Women and men in the informal economy: A statistical picture. ILO. [Online]. Available at: https://www.ilo.org/global/publications/books/WCMS_626831/lang--en/index.htm
- 269. ILO [International Labour Organization] (2014). Notes on Policies for the Formalization of Micro and Small Enterprises: Policies for the formalization of micro and small enterprises in Brazil. ILO. [Online]. Available at: https://www.ilo.org/wcmsp5/groups/public/---americas/--ro-lima/documents/publication/wcms_318209.pdf
- 270. IRENA [International Renewable Energy Agency] (2020). Post-COVID recovery: An agenda for resilience, development and equality. IRENA. [Online]. Available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2020/Jun/IRENA-Post-COVID_Recovery_2020.pdf
- 271. IEA [International Energy Agency] (2020). World Energy Outlook Special Report: Sustainable Recovery. IEA. [Online]. Available at: https://iea.blob.core.windows.net/assets/c3de5e13-26e8-4e52-8a67-b97aba17foa2/Sustainable_Recovery.pdf
- 272. Koirala, S. (2018). SMEs: Key Drivers of Green and Inclusive Growth.

 OECD. [Online]. Available at: https://www.oecd.org/greengrowth/
 GGSD_2018_SME%20Issue%20Paper_WEB.pdf
- 273. UNEP United Nations Environment Programme] (2014). *The Business Case for Eco-innovation*. UNEP. [Online]. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/10613/BCForEl_EN.pd-f?sequence=1&isAllowed=y
- 274. Koirala, S. (2018). SMEs: Key Drivers of Green and Inclusive Growth.

 OECD. [Online]. Available at: https://www.oecd.org/greengrowth/
 GGSD_2018_SME%20Issue%20Paper_WEB.pdf
- 275. Cilliers, J., Schünemann, J., and Moyer, J. D. (2015). Power and influence in Africa: Algeria, Egypt, Ethiopia, Nigeria and South Africa. Africa Futures Paper, March 2015. Institute of Security Studies. [Online]. Available at: https://pardee.du.edu/sites/default/files/AfricanFu-turesNo14-V2.pdf
- 276. Tella, O. (2019). Nigeria is punching below its weight despite massive soft power capacity. The Conversation. [Online]. 5 February 2019. Available at: https://theconversation.com/nigeria-is-punch-ing-below-its-weightdespite-massive-soft-power-capacity-110804
- 277. Frazer, J. (2007). US: Nigeria fit for permanent member of UN Security Council. *This Day*, 28 September 28, p. 4.
- 278. Tuck, C (2000). Every Car or Moving Object Gone- The ECOMOG Intervention in Liberia. *African Studies Quarterly*, 4(1), 1–16. [Online]. Available at: https://sites.clas.ufl.edu/africanquarterly/files/ASQ-Vol-4-lssue-1.pdf
- 279. Nwaubani, A. T. (2014). Does Nigeria have an image problem? BBC News. [Online]. 26 June 2014. Available at: https://www.bbc.com/ news/world-africa-28015962
- 280. Henley and Partners (2021). The Henley Passport Index: Q2 2021 Global Ranking. Henley and Partners. [Online]. Available at https://www.henleyglobal.com/storage/app/media/HPI/HENLEY_PASSPORT_INDEX_2021_Q2_INFOGRAPHIC_GLOBAL_RANKING_210415_1.pdf

- 281. The only Africa countries that Nigeria is ranked above are Ethiopia, South Sudan, Sudan, Congo DRC, Eritrea, Libya, and Somalia.
- 282. Wilson, D, and Stupnytska, A. The N-11: more than an acronym. Goldman Sachs. [Online]. Available at: https://www.goldmansachs.com/insights/archive/archive-pdfs/brics-book/brics-chap-13.pdf
- 283. Majaski, C. (2020). Brazil, Russia, India, and China (BRIC). Investo-pedia. [Online]. Last updated: 10 December 2020. Available at: https://www.investopedia.com/terms/b/bric.asp
- 284. Mckinsey (2018). How to win in Africa. [Online]. Mckinsey. Last updated: 20 November 2020. Available at: https://www.mckinsey.com/featured-insights/middle-east-and-africa/how-to-win-in-africa
- 285. Elliot, L. (2014). Mint condition: countries tipped as the next economic powerhouses. *The Guardian*. [Online]. 9 January, 2014. Available at: https://www.theguardian.com/business/2014/jan/09/mint-condition-countriestipped-economic-powerhouses
- 286. Akinyoade, A., Ekumankama, O., and Uche, C. (2016). The use of local raw materials in beer brewing: Heineken in Nigeria. *Journal of Institute of Brewing*, 122(04), 682–692. [Online]. Available at: https://doi.org/10.1002/jib.383
- 287. Gatune, J (2016). Cassava as a Driver of Innovation The Case of Ghana and Nigeria. In Adesida, O., Karuri-Sebina, G., and Resende-Santos, J. (Eds). Innovation Africa Emerging Hubs of Excellence. Bingley, UK: Emerald Publishing.
- 288. Munshi, N. (2019). MTN lists Nigerian business at \$5bn valuation.

 Financial Times. [Online]. 6 May 2019. Available at: https://www.
 ft.com/content/5134f2be-77cf-11e9-be7d-6d846537acab
- 289. In 2014, MTN was fined \$5.2 billion by the Nigerian Communications Commission (NCC) for failure to cut off users with unregistered SIM cards from its network. In 2018 Nigeria slammed MTN with \$10bn in penalties -- including \$8.1bn it claimed MTN illegally repatriated and \$2bn in back taxes.
- 290. MTN settled for \$53 million, rather than the \$8.1 billion the government had demanded.
- 291. George, L. (2020). UPDATE 3-Nigeria revokes \$2 bn tax case against telecoms firm MTN. Reuters. [Online]. 10 January 2020. Available at: https://www.reuters.com/article/nigeria-mtn-group/update-3-nigeria-revokes-2-bln-tax-case-against-telecoms-firm-mtnidUSL8N29F3,OA
- 292. Faujas, A. (2020). Nigeria: Stop shooting yourself in the foot!. The Africa Report. [Online]. 31 July 2020. Available at: https://www.theafricareport.com/35941/nigeria-stop-shooting-yourself-in-the-foot/
- 293. Gatune, J (2016). Cassava as a Driver of Innovation The Case of Ghana and Nigeria. In Adesida, O., Karuri-Sebina, G., and Resende-Santos, J. (Eds). Innovation Africa Emerging Hubs of Excellence. Bingley, UK: Emerald Publishing.
- 294. Faujas, A. (2020). Nigeria: Stop shooting yourself in the foot!. The Africa Report. [Online]. 31 July 2020. Available at: https://www.theafricareport.com/35941/nigeria-stop-shooting-yourself-in-the-foot/

- 295. ld.
- 296. Ecofin Agency (2020). MTN Nigeria is now worth more on the stock market than its South African parent company. *Ecofin Agency*.
 [Online]. 13 May 2020. Available at: https://www.ecofinagency.com/telecom/1305-41361-mtn-nigeria-is-now-worth-more-on-the-stock-market-than-its-south-african-parent-company
- 297. Onu, G. and Ngwube, A. (2020). Nigeria's Leadership Role in United Nations Peace Support Operations: Challenges and Prospects. *Africa Peace Review*, 16(1), 38–61.
- 298. Dauda, M., Ahmad, M. Z., and Keling, F. (2017). Nigeria's Role and Its Peacekeeping Challenges in Africa: An Assessment. European Journal of Social Sciences Studies, 2(3), 46–71.
- 299. Tuck, C (2000). Every Car or Moving Object Gone- The ECOMOG Intervention in Liberia. *African Studies Quarterly*, 4(1), 1–16. [Online]. Available at: https://sites.clas.ufl.edu/africanquarterly/files/ASQ-Vol-4-Issue-1.pdf
- 300. Adeniji, O. (2005). Essays on Nigerian Foreign Policy, Governance and International Security. Ibadan: Dokun Publishers.
- 301. Onu, G. and Ngwube, A. (2020). Nigeria's Leadership Role in United Nations Peace Support Operations: Challenges and Prospects. Africa Peace Review, 16(1), 38–61.
- 302. Adebayo, A. (2013). Decline of Nigeria's foreign policy. *The Guardian*, 6 May 2013.
- 303. Udeh, S. C. and Okoroafor, E. C. (2016). Nigeria's Bid For Inclusion In The Permanent Seat Of The Security Council Of The United Nations: An Assessment. International Journal of Development and Management Review, 11(1), 126-149. [Online]. Available at: https://www.ajol.info/index.php/ijdmr/article/view/137832
- 304. Reuters (2017). Military graft undermines Nigeria's fight against Boko Haram: Transparency International. Reuters. [Online] 18 May 2017. Available at: https://www.reuters.com/article/instant-article/idCAKCN18D2XSOCATP
- 305. Duke, O., Agbaji, D., and Bassey, O. (2017). Corruption and the Challenge of Boko Haram Terrorism in Nigeria: A Case of the Nigerian Armed Forces. Asian Research Journal of Arts & Social Sciences, 4(2), 1–20.
- 306. In Global Fire Power (GFP) 2020 Global Power index, Nigeria has a score of 0.6485 based 120,000 military personnel and 1,789 armoured vehicles while the top African nation, Egypt, has power score of 0.1872, thanks to an estimated military strength of 920,000 soldiers and 11,700 armoured vehicles. Note the perfect power score is 0.000 in this index.
- 307. Ecofin Agency (2020). Africa's 2020 military power ranking (GFP). Ecofin Agency. [Online]. 7 February 2020. Available at: https://www.ecofinagency.com/public-management/0702-40950-africa-s-2020-military-powerranking-afp
- 308. Tuck, C (2000). Every Car or Moving Object Gone- The ECOMOG Intervention in Liberia. African Studies Quarterly. 4(1), 1-16. [Online].

- Available at: https://sites.clas.ufl.edu/africanquarterly/files/ ASQ-Vol-4-Issue-1.pdf
- 309. Ani, N.C. (2018). Is the African Standby Force any closer to being deployed? ISS Today. [Online]. 02 November, 2018. Available at: https://issafrica.org/iss-today/is-the-african-standby-force-anycloser-to-beingdeployed
- 31o. Udeh, S. C. and Okoroafor, E. C. (2016). Nigeria's Bid For Inclusion In The Permanent Seat Of The Security Council Of The United Nations: An Assessment. International Journal of Development and Management Review, 11(1), 126–149. [Online]. Available at: https://www.ajol.info/index.php/ijdmr/article/view/137832
- 311. Mbhense, K. S. (2015). Africa's Bid For A Permanent Seat In The United Nations Security Council (Unsc): Prospects And Challenges For Nigeria And South Africa. University Of Kwazulu-Natal, Master of Social Sciences Degree in International Relations. Available at: http://hdl.handle.net/10413/14864
- 312. Ezirim, G. (2011). Fifty Years of Nigeria's Foreign Policy: A Critical Review. [Online]. Available at: https://www.researchgate.net/publication/268575383. Fifty Years of Nigeria's Foreign Policy A Critical Review
- 313. Cilliers, J., Schünemann, J., and Moyer, J. D. (2015). Power and influence in Africa: Algeria, Egypt, Ethiopia, Nigeria and South Africa. Africa Futures Paper, March 2015. Institute of Security Studies. [Online]. Available at: https://pardee.du.edu/sites/default/files/AfricanFu-turesNo14"
- 314. Faujas, A. (2020). Nigeria: Stop shooting yourself in the foot!. The Africa Report. [Online]. 31 July 2020. Available at: https://www.theafricareport.com/35941/nigeria-stop-shooting-yourself-in-the-foot/
- 315. 314 Noboa, T (2017). America gets back as much as it gives in foreign Aid. Baltimore Sun. [Online]. o8 October 2017. Available at: https://www.baltimoresun.com/opinion/op-ed/bs-ed-op-100gforeign-aid-20171005-story.html
- 316. 315 AfDB [African Development Bank] (NA). Nigeria Trust Fund.
 [Online]. AfDB. Available at: https://www.afdb.org/en/about-us/corporate-information/nigeria-trust-fund-ntf
- 317. AfDB [African Development Bank] (2017). Nigeria Technical Cooperation Fund celebrates first ten-year life cycle (2004–2014).

 [Online]. AfDB. Available at: https://www.afdb.org/ft/news-and-events/nigeria-technicalcooperation-fund-cele-brates-first-ten-year-life-cycle-2004-2014-17223
- 318. AfDB [African Development Bank] (2017). The Nigeria Technical Cooperation Fund (NTCF): Integrating Africa, Supporting Growth. AfDB. [Online]. Available at: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/BROCHURE_NTCF.pdf
- 319. Lawson, M. L. and Morgenstern, E. M. (2019). Foreign Aid: An Introduction to US Programs and Policy. Congressional Research Service. [Online]. Available at: https://fas.org/sgp/crs/row/R40213.pdf
- 320. Noboa (2017) points that as of 2015, cumulative foreign direct investment in the U.S. totalled \$3.1 trillion. Among the largest investors are the United Kingdom, Japan, Germany and South Korea — countries that rebuilt after war with America's aid.

- 321. Ingram, G. (2019). What Every American Should Know About US Foreign
 Aid. [Online]. Brookings Institution. Last updated: 15 October 2019.
 Available at: https://www.brookings.edu/policyzo2o/votervital/what-everyamerican-should-know-about-us-foreign-aid/
- 322. Noboa, T (2017). America gets back as much as it gives in foreign Aid. Baltimore Sun. [Online]. o8 October 2017. Available at: https://www.baltimoresun.com/opinion/op-ed/bs-ed-op-100g-foreign-aid-20171005-story.html
- 323. Ogunnubi, O. (2014). Hegemonic order and regional stability in Sub-Saharan Africa: A comparative study of Nigeria and South Africa. University of KwaZulu-Nata, PhD.
- 324. Ogunnubi, O. and Isike, C. (2018). Nigeria's Soft Power Sources: Between Potential and Illusion?. *International Journal of Politics Culture and Society*, 31, 49–67.
- 325. The global power of Nigerian music is best reflected by the hit Broadway musical production Fela! that celebrates the life of Fela Anikulapo-Kuti (Oikelome, 2010 cited in Nwankwo, 2018). The production, based on the music and lyrics of Fela, became a huge Broadway success which has also toured several parts of the world.
- 326. PwC (2019). Insights from the Entertainment & Media Outlook:

 2019-2023 An African perspective. PwC. [Online]. Available at:

 https://www.pwc.co.za/en/assets/pdf/entertainment-and-me-dia-outlook-2019-2023.pdf
- 327. Rotinwa (2020) points that "Eighty per cent DIY, mom-and-pop shops", where the typical artist entrusts one other person to be his booking agent, business manager, publicist, marketer, personal manager and more. There is no legal, accounting knowhow, bookkeeping, support, no expertise at negotiating tables.
- 328. Rotinwa, A. (2020). Nigeria's Afrobeats superstars take on the world. Financial Times. [Online]. 5 November 2020. Available at: https://www.ft.com/content/60084cef-9c34-4d12-8407-ea7007f0054e
- 329. Corliss, R. (2013). *Omotola Jalade-Ekeinde*. [Online]. The 2013 TIME 100. Last updated: 18 April 2013. Available at: https://time100.time.com/2013/04/18/time-100/slide/omotola-jalade-ekeinde/
- 33o. Jewell, C. (2017). iROKOtv: delivering Nollywood content to the world. WIPO Magazine. [Online]. October 2017. Available at: https://www.wipo.int/wipo_magazine/en/2017/05/article_0002.html
- 331. Rotinwa, A. (2020). Nigeria's Afrobeats superstars take on the world. Financial Times. [Online]. 5 November 2020. Available at: https://www.ft.com/content/60084cef-9c34-4d12-8407-ea7007f0054e
- 332. Echeverria–Estrada, C. and Batalova, J. (2019). Sub-Saharan African Immigrants in The United States. [Online]. Migration Policy Institute. Last updated: 6 November 2019. Available at: https://www.migrationpolicy.org/article/sub-saharan-african-immigrants-unit-ed-states-2018
- 333. PwC (2019). Strength from Abroad, The Economic Power of Nigeria's Diaspora. PricewaterhouseCoopers. [Online]. Available at: https://www.pwc.com/ng/en/pdf/the-economic-power-of-nige-rias-diaspora.pdf

- 334. BBC (2020). African diaspora: Did Ghana's Year of Return attract foreign visitors? [Online]. 30 January 2020. Available at: https://www.bbc.com/news/world-africa-51191409
- 335. Shivers, K. N. (2020). Missed Ghana's 'Year of Return'? No worries, here are 8 significant, historical sites you should visit. *Ark Republic*. [Online]. 29 February 2020. Available at: https://www.arkrepublic.com/2020/02/29/missed-ghanas-year-of-return-no-worries-here-are-8-significanthistorical-sites-you-should-visit/
- 336. Jide, L. (2020). On Nigeria's "Door of Return" Call to The Diaspora. One Tribe Magazine. [Online]. Last updated: 4 February 2020. Available at: https://www.onetribemag.com/2020/02/04/door-of-return/
- 337. PwC (2019). Strength from Abroad, The Economic Power of Nigeria's Diaspora. *PricewaterhouseCoopers*. [Online]. Available at: https://www.pwc.com/ng/en/pdf/the-economic-power-of-nige-rias-diaspora.pdf
- 338. Lusa (2020). Parlamento aprova por unanimidade lei do investidor emigrante em Cabo Verde. Expresso das Ilhas / Lusa. [Online]. 11 January 2020. Available at: https://expressodasilhas. cv/politica/2020/01/11/parlamento-aprova-por-unanimidade-lei-do-investidoremigrante-em-cabo-verde/67456
- 339. Xiang, B. (2016). Emigration Trends and Policies in China: Movement of the Wealthy and Highly Skilled. Migration Policy Institute. [Online]. Available at: https://www.migrationpolicy.org/research/emigration-trendsand-policies-china-movement-wealthy-and-highly-skilled
- 340. Gol [Government of India] (2019). Overseas Citizenship of India (OCI) Cardholder. F. No. 26011/Misc/47/2019 – OCI. New Delhi: Ministry of Home Affairs – Foreigners Division. [Online]. Available at: https://www.mha.gov.in/PDF_Other/Addressesoffices-OCIMisc_15112019.
- 341. Costello, R (2016). Who are the recipients of this year's Irish diaspora awards? The Irish Times. [Online]. 8 December 2016. Available at: https://www.irishtimes.com/life-and-style/abroad/genera-tion-emigration/whoare-the-recipients-of-this-year-s-irish-dias-pora-awards-1.2898218
- 342. The Taglit-Birthright Israel program, initiated in 2001 provides free educational trips to Israel for young diaspora adults aged 18 to 26.

 Since its inception, over 260,000 diaspora youth from 52 countries have participated in the program.
- 343. Agunias, D. R. and Newland, K. (2012). Developing a Road Map for Engaging Diasporas in Development: A Handbook for Policymakers and Practitioners in Home and Host Countries. International Organization for Migration, Migration Policy Institute. [Online]. Available at: https://publications.iom.int/system/files/pdf/diaspora_handbook_en_for_web_28may2013.pdf
- 344. According to the last World Values Survey (2017-2020), only 13% of Nigerians agree with the statement "Most people can be trusted". Other African countries assessed in the survey show similar numbers (in Ethiopia and Egypt, only 11.9% and 7.3% of respondents agree, respectively). In comparison, the number is much higher in China (63.5%), South Korea (32.9%), and the UK (40.2%). Survey results can be accessed here: worldvaluessurvey.org.

- 345. UNFPA [United Nations Population Fund] (2019). State of World Population 2019: Unfinished Business, the Pursuit of Rights and Choices for All. United Nations Population Fund. [Online]. Available at: https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA_PUB_2019_EN_State_of_World_Population.pdf
- 346. Youngs, R. and Panchulidze, E. (2020). Global Democracy & Covid-19: Upgrading international support. European Endowment Democracy. [Online]. Available at: http://carnegieendowment.org/files/Global_democracy_covid-1g_report_FINAL_WEB.pdf
- 347. BudgIT (2020). 2020 Budget: Analysis and Opportunities. BudgIT. [Online]. Available at: https://yourbudgit.com/wp-content/uploads/2020/03/2020-Budget-Analysis.pdf
- 348. Schrock A. (2018). Civic Tech: Making Technology Work for People. Los Angeles, CA: Rogue Academic Press.
- 349. Pope, R. (2019). A working definition of Government as a Platform.

 [Online]. digital HKS. Last updated: 22 July 2019. Available at: https://medium.com/digitalhks/a-working-definition-of-government-as-a-platform-1fa6ff2f8e8d
- 350. DST [Department of Science and Technology] (2019). White paper on science, technology and innovation: Science, technology and innovation enabling inclusive and sustainable South African development in a changing world. Available at: https://www.gov.za/sites/default/files/gcis_ document/201912/white-paper-sciencetechnology-and-innovation. pdf
- 351. Dutrénit, G. & Puchet, M. (2015). Tensions of Science, Technology and Innovation policy in Mexico: analytical models, institutional evolution, national capabilities and governance. Atlanta Conference on Science and Innovation Policy. Unpublished paper presented in the Atlanta Conference on Science and Innovation Policy. 17–19 September. Atlanta.
- 352. Sterman, J. D. (2001). System dynamics modeling: Tools for learning in a complex world. *California Management Review*, 43 (4), 8–25.
- 353. Hobsbawm, E. (1983). Introduction: Inventing traditions. In E. Hobsbawm & T. Ranger (Eds.), The invention of tradition (pp. 1–14). Cambridge, UK: Cambridge University Press.
- 354. Paquet, G. (1999). Governance through social learning. Ottawa, CA: University of Ottawa Press.
- 355. Manzini, S. T. (2015) Measurement of innovation in South Africa: An analysis of survey metrics and recommendations. South African Journal of Science, 111(11/12), 1–8.
- 356. Gault, F. (2020). Measuring innovation everywhere: The challenge of better policy, learning, evaluation and monitoring. Northampton, US: Edward Elgar Publishing, Inc.
- 357. OECD [Organisation for Economic Co-operation and Development] (2017). Fostering innovation in the public sector. Paris: OECD Publishing. Available at: https://doi.org/10.1787/9789264270879-en

visit imaginenigeria.ng

join the conversation







