



Nigeria

ANNEXURE

Kouassi Yeboua, Jakkie Cilliers and Alize le Roux

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Table of contents

ANNEXURE	3
ANNEX A	3
ANNEX B	7
ANNEX C	9
Donors and Sponsors	21
Reuse our work	21
Cite this research	21

ANNEXURE

- ANNEX A
- ANNEX B
- ANNEX C

ANNEX A

Chart 41: Progress towards key SDG's

	Current Path by 2030	The Super Nigeria scenario by 2030	Current Path by 2040	The Super Nigeria scenario by 2040	Current Path by 2050	The Super Nigeria scenario by 2050
Indicator 1.1.1b	●	●	●	●	●	●
Indicator 2.1.1a	●	●	●	●	●	●
Indicator 2.2.2c	●	●	●	●	●	●
Indicator 3.2.2	●	●	●	●	●	●
Indicator 3.3.1b	●	●	●	●	●	●
Indicator 3.3.3	●	●	●	●	●	●
Indicator 3.7.1	●	●	●	●	●	●
Indicator 4.1.1c	●	●	●	●	●	●
Indicator 4.1.1e	●	●	●	●	●	●
Indicator 4.1.1g	●	●	●	●	●	●
Indicator 4.5.1i	●	●	●	●	●	●
Indicator 4.5.1k	●	●	●	●	●	●
Indicator 6.1.1	●	●	●	●	●	●
Indicator 6.2.1	●	●	●	●	●	●
Indicator 7.1.1	●	●	●	●	●	●

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Progress towards some key SDGs: Current Path vs the Super Nigeria scenario

Indicators	Current Path by 2030	The Super Nigeria scenario by 2030	Current Path by 2040	The Super Nigeria scenario by 2040	Current Path by 2050	The Super Nigeria scenario by 2050	Target value
Indicator 1.1.1b	●	●	●	●	●	●	
Indicator 2.1.1a	●	●	●	●	●	●	
Indicator 2.2.2c	●	●	●	●	●	●	
Indicator 3.2.2	●	●	●	●	●	●	
Indicator 3.3.1b	●	●	●	●	●	●	
Indicator 3.3.3	●	●	●	●	●	●	
Indicator 3.7.1	●	●	●	●	●	●	
Indicator 4.1.1c	●	●	●	●	●	●	
Indicator 4.1.1e	●	●	●	●	●	●	
Indicator 4.1.1g	●	●	●	●	●	●	
Indicator 4.5.1i	●	●	●	●	●	●	
Indicator 4.5.1k	●	●	●	●	●	●	
Indicator 6.1.1	●	●	●	●	●	●	
Indicator 6.2.1	●	●	●	●	●	●	
Indicator 7.1.1	●	●	●	●	●	●	

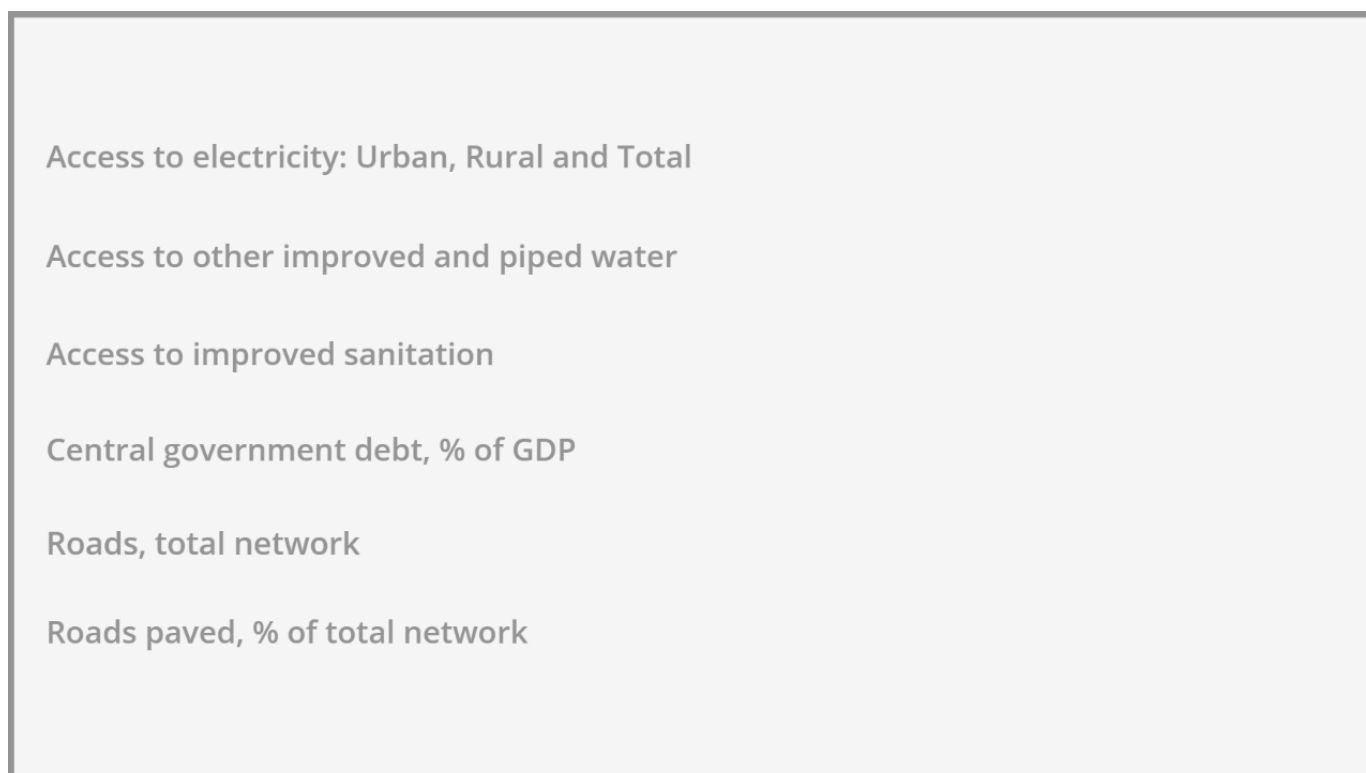
Goal 1: POVERTY							
Indicator 1.1.1b - Percentage of population below \$1.90 (2011\$ PPP) per day.	40.6	38.1	33.2	19.2	22.1	3.8	3
Goal 2: HUNGER							
Indicator 2.1.1a - Percentage of undernourished population	7.8	5.7	6.3	3.3	4.6	1.8	3
Indicator 2.2.2c - Severe Acute Malnutrition among children under 5	3.6	2.3	3.3	1.5	2.8	1	1
Goal 3: HEALTH							
Indicator 3.2.2 - Infant mortality rate in deaths per thousand newborns	30	17	23	8	16	4	12
Indicator 3.3.1b - AIDS death rate as percentage of population	0.042	0.04	0.021	0.02	0.009	0.009	0
Indicator 3.3.3 -	0.39	0.38	0.23	0.22	0.13	0.12	0

Malaria death rate per thousand							
Indicator 3.7.1 - Contraception use as percentage of fertile women	21	32	29	55	39	80	97
Goal 4: EDUCATION							
Indicator 4.1.1c - Primary education gross completion rate - Total	91.7	94.4	95	98	97	100	97
Indicator 4.1.1e - Lower secondary education graduation rate - Total	53.5	64	59.3	81	69.6	96.3	97
Indicator 4.1.1g - Upper secondary education graduation rate - Total	44.8	54.1	50.3	70.3	61	89.6	97
Indicator 4.5.1i - Upper secondary education gross enrollment rate parity index (female/male)	0.98	0.99	1	1	1	1	1

Indicator 4.5.1k - Years of education obtained by population 15+ parity index (female/male)	0.81	0.81	0.83	0.85	0.89	0.9	1
Goal 6: WATER AND SANITATION							
Indicator 6.1.1 - Percentage of people with access to improved water	78.5	80.7	81.7	91	86.2	97	98
Indicator 6.2.1 - Percentage of people with access to sanitation services - Improved	44.4	50.6	52.3	69.5	63.3	84	98
Goal 7: ENERGY							
Indicator 7.1.1 - Percentage of population with access to electricity - Total	61.7	76.3	72.6	94.5	85.1	99.6	98

ANNEX B

Chart 42: Historical data series adjusted within IFs



Adjustments made within IFs

Growth rate adjustments

The 2021 and 2022 growth rates for Nigeria were adjusted to the July 2021 IMF World Economic Outlook update. The growth rates for Nigeria are forecast to be 2.5% in 2021 and 2.6% in 2022.

The size of the informal sector adjustment

The share of informal labour in the total labour force for Nigeria was adjusted to ILO latest data.

Additions or amendments to some historical data within IFs using a Project Data File

Series	Years changed or added	Sources
Access to electricity (Total)	2019	USAID-POWERAFRICA-Nigeria www.usaid.gov/powerafrica/nigeria
Access to electricity –	2019	USAID-POWER AFRICA-Nigeria

Urban area		www.usaid.gov/powerafrica/nigeria
Access to electricity – Rural area	2019	USAID-POWER AFRICA-Nigeria www.usaid.gov/powerafrica/nigeria
Access to other improved water (%)	2016–2020	WHO/UNICEF JMP global database https://washdata.org/
Access to piped water (%)	2016–2020	WHO/UNICEF JMP global database https://washdata.org/
Access to improved sanitation (%)	2016–2020	WHO/UNICEF JMP global database https://washdata.org/
Central government debt as % of GDP	2013–2020	World economic outlook database, IMF
Roads, total network, kilometres	2017	The World Factbook-CIA www.cia.gov/the-world-factbook/country
Roads paved (%)	2017	The World Factbook-CIA www.cia.gov/the-world-factbook/country

ANNEX C

Chart 43: Number of interventions per scenario



Scenario interventions

All interventions are from 2024, interpolated to 2033 and then maintained at that level until 2050 unless indicated otherwise.

Governance and Security

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Increase governance effectiveness (goveffectm)	Interpolate from 1 to 1.2	<p>Between 2002 and 2012, Rwanda increased its government effectiveness score by 53%.</p> <p>Nigeria's score on the government effectiveness index increases by 38% between 2024 and 2033. In the Current Path forecast assumptions for other countries, Nigeria is on a</p>

		par with Sri Lanka and Cape Verde by 2050.
Reduce corruption (govcorruptm)	Interpolate from 1 to 1.15	The score for Tanzania increased by about 58% between 1998 and 2008. Nigeria's score on the corruption index improved by 38.6% between 2024 and 2033.
Improve democracy (democm)	Interpolate from 1 to 1.03	Between 2012 and 2017, the score of Burkina Faso increased by 60%. With this intervention, Nigeria's score increases by 11.2% between 2024 and 2033.
Improve gender empowerment (gem)	Interpolate from 1 to 1.5	Zambia improved its gender empowerment score by nearly 57% between 1995 and 2009. Nigeria's score increases by 46% between 2024 and 2033.
Increase social welfare transfer (unskilled labour)	Interpolate from 1 to 1.25	Nigeria has one of the lowest public expenditures on social protection. In the Current Path forecast assumptions for other countries, Nigeria is on a par with the projected average for global lower middle-income peers by 2050.
Increase taxes (skilled workers)	Interpolate from 1 to 1.1 between 2024 and 2033 then change/repeat to 1	A proxy for government efforts to improve tax compliance and reduce income inequality.
Improve governance security (govriskm)	Interpolate from 1 to 0.9	In the Current Path forecast assumptions for other countries, Nigeria is on a par with Cambodia by 2050.
Reduce societal violence (conflict and terror)	Interpolate from 1 to 0.9	Rising kidnapping for ransom and terrorism are threatening Nigerian development prospects.

(svmulm)		
Reduce the probability of state failure (internal war) (sfintlwaradd)	Interpolate from 0 to -0.2	Separatist agitations are rising in Nigeria. Long-term stability and unity are necessary to propel the country to prosperity.

Demographics and Human Capital

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Increase contraceptive use (contrusm)	Interpolate from 1 to 1.5	Between 1992 and 2003, contraceptive use increased by more than 40% in Egypt. From a very low base, contraceptive use in Nigeria increases by 88% between 2024 and 2033. In the Current Path forecast assumptions for other countries, the fertility rate in Nigeria is on a par with the projected average for lower middle-income Africa by 2050.
Reduces mortality for children under five (hlmortcdchldm)	Interpolate from 1 to 0.7	Between 2008 and 2017, infant mortality declined by about 30% in India. Infant mortality declines by 47% between 2024 and 2033 in Nigeria. Nigeria is on a par with the projected average for lower middle-income Africa by 2050.
Reduces maternal mortality ratio (matmortratio)	Interpolate from 1 to 0.5	Between 2005 and 2014, Angola reduced maternal mortality by about 50%. Maternal mortality ratio declines by more than 50% in Nigeria between 2024 and 2033. Nigeria is on a par

		with the projected averages for its African and global income peers by 2050.
Reduce malaria prevalence (hlmalariaprevm)	Interpolate from 1 to 0.6	Between 2008 and 2017, Ghana reduced its malaria prevalence by about 43%. In the Current Path forecast assumptions for other countries, malaria prevalence in Nigeria is on a par with the average for global income peers by 2050.
Reduce respiratory infections (hlmortm (resp. infections))	Interpolate from 1 to 0.6	In the Current Path forecast assumptions for other countries, the respiratory infections death rate in Nigeria is on a par with Tunisia by 2050.
Reduce diarrhoea (hlmortm (diarrhea))	Interpolate from 1 to 0.6	In the Current Path forecast assumptions for other countries, the diarrhoea death rate in Nigeria is on a par with the projected average for lower middle-income Africa in 2050.
Reduce HIV prevalence (hlmortm (AIDS))	Interpolate from 1 to 0.6	Between 2007 and 2017, HIV prevalence declined by 50% in Honduras. With this intervention, HIV prevalence in Nigeria declines by 35% between 2024 and 2033.
Reduce other communicable diseases (hlmortm (OthCommumDis))	Interpolate from 1 to 0.9	In the Current Path forecast assumptions for other countries, this intervention brings Nigeria in line with the projected average for lower middle-income Africa by 2050.
Reduces severe acute malnutrition prevalence (SAM) (malnchpsamm)	Interpolate from 1 to 0.7	Between 2002 and 2011, SAM prevalence declined by nearly 38% in Vietnam. SAM in Nigeria declines by nearly 34% between 2024 and 2033.

Primary net intake rate (edpriintnm) (female)	Interpolate from 1 to 1.15	<p>60% of school-age children that are out of school in Nigeria are girls.</p> <p>Between 1996 and 2006, Laos increased its female primary net intake by 68.5%.</p> <p>Female primary net intake in Nigeria increases by 22% between 2024 and 2033.</p>
Primary net intake rate multiplier (male)	Interpolate from 1 to 1.1	<p>Between 1999 and 2009, Morocco increased its male primary net intake by 49%.</p> <p>Male primary net intake in Nigeria increases by 16% between 2024 and 2033.</p>
Improve the quality of primary education (edqualpriallm)	Interpolate from 1 to 1.15	<p>Between 1995 and 2005, primary education quality (total test score) in Kenya increased by 31%.</p> <p>Primary education quality in Nigeria (total test score) increases by 17% between 2024 and 2033.</p>
Increase lower secondary school graduation rate (Total) (edseclowrgram)	Interpolate from 1 to 1.2	<p>Between 2015 and 2019, Laos increased its lower secondary completion rate by 22%.</p> <p>Lower secondary completion rate in Nigeria increases by 28.7% between 2024 and 2033.</p>
Increase upper secondary school graduation rate (Total) (Edsecupprgram)	Interpolate from 1 to 1.2	<p>Between 2015 and 2019, the upper secondary school graduation rate increased by 29% in Uganda.</p> <p>The upper secondary school graduation rate in Nigeria increases by about 15% between 2024 and 2033. In the Current Path forecast assumptions for other countries, Nigeria is on a par with the projected average for the global lower middle-income countries by 2050.</p>

Improve the quality of secondary education (edqualsecallm)	Interpolate from 1 to 1.2	<p>Between 2000 and 2005, secondary education quality (total test score) in Morocco increased by about 17%.</p> <p>In this intervention, secondary education quality (total test score) in Nigeria increases by 15% between 2024 and 2033.</p>
Increase tertiary intake (Total) (edterintm)	Interpolate from 1 to 1.5	<p>In Nigeria, only about 10% of applicants seeking admission into tertiary institutions are placed.</p> <p>Between 2000 and 2010, enrolment in tertiary institutions nearly doubled in Ukraine.</p> <p>Enrolment in tertiary institutions in Nigeria increases by 33% between 2024 and 2033.</p>
Increase graduation rate in tertiary education (science & engineering) (Edterscieshradd)	Increase by 10 percentage points between 2024 and 2033 and hold.	<p>Between 2006 and 2016, the share of science and engineering students in tertiary graduates in Kyrgyzstan increased by about 35%.</p> <p>From a very low base, the share of science and engineering students in tertiary graduates in Nigeria increases by about 46.8% between 2024 and 2033.</p>

Agricultural Revolution

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Increase crop yields (ylm)	Interpolate from 1 to 1.5	<p>Between 2006 and 2016, average crop yields in Nepal increased by about 61.5%.</p> <p>Average crop yields in Nigeria increase by 41% between 2024 and 2033. In the Current Path forecast</p>

		assumptions for other countries, Nigeria is on a par with Bangladesh by 2050.
Increase land area equipped for irrigation (Landirareaequipm)	Interpolate from 1 to 1.3	Between 2010 and 2016, land area equipped for irrigation increased by nearly 29% in Kenya. In the Current Path forecast assumptions for other countries, Nigeria is on a par with Nepal by 2050.
Reduce agriculture loss from producer to consumer (aglosstransm)	Interpolate from 1 to 0.5	Infrastructure shortage in the rural areas causes huge losses when transporting agricultural production from producer to consumer in Nigeria. This intervention puts it on a par with the projected average for lower middle-income globally by 2050. This intervention reduces agriculture loss along the value chain by about 13% between 2024 and 2050.
Reduce loss rate of agriculture production (aglossprodm)	Interpolate from 1 to 0.5	To reduce agricultural production at the point of production. This intervention puts it on a par with the projected average for lower middle-income globally by 2050.
Increase food access/calories per capita (clpcm)	Interpolate from 1 to 1.15	Between 2000 and 2010, calorie per capita increased in Mongolia by 33.5%. Calorie per capita increases in Nigeria by 15.5% between 2024 and 2033.

Basic Infrastructure

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Reduce capital cost to output ratio in	Interpolate from 1 to 0.8	To stimulate the production of

energy gem - Q (OthRenew)		renewable energy. From a very low base, the production of renewable energy (OthRenew) in Nigeria increases by more than 100% between 2024 and 2033.
Increase electricity generation capacity per capita (infraelecgencapm)	Interpolate from 1 to 1.15 between 2024 and 2033 then change/repeat to 1.1	Between 2006 and 2016, electricity generation capacity per capita in Laos increased by more than 100%. In this intervention, electricity generation capacity per capita in Nigeria increases by 55% between 2024 and 2033.
Reduce electricity transmission and distribution loss (infraelectranloss)	Interpolate from 1 to 1.3	Between 2009 and 2014, the Republic of Congo reduced electricity transmission losses by nearly 37%. In this scenario, electricity transmission losses in Nigeria decrease by 28.6% between 2024 and 2033.
Increase access to electricity (Infraelecaccm) (Rural)	Interpolate from 1 to 1.4	Between 2009 and 2019, the electricity access rate in urban areas increased by 41% in India. Electricity access in rural areas in Nigeria increases by about 50% between 2024 and 2033.
Increase access to electricity (Infraelecaccm) (Urban)	Interpolate from 1 to 1.15	Between 2005 and 2015, the electricity access rate in urban areas doubled in Lesotho. In this scenario, electricity access in urban areas in Nigeria increases by about 21% between 2024 and 2033. In the Current Path forecast assumptions for other countries, Nigeria is on a par with the projected average for global lower middle-income countries by 2050.
Increase total road network	Interpolate from 1 to 1.3	Between 2000 and 2010, India increased its total road network by

(Infraroadm)		<p>about 38%.</p> <p>In this intervention, the Nigerian total road network increases by 34% between 2024 and 2033.</p>
Increase roads paved length (Infraroadpavedpcntm)	Interpolate from 1 to 1.2	<p>Between 2001 and 2011, paved roads length increased by 57% in India.</p> <p>In this intervention, paved roads length in Nigeria increases by 49% between 2024 and 2033.</p>
Increase access to fixed broadband Internet (ICT) (Ictbroadm)	Interpolate from 1 to 1.5	<p>Access to fixed broadband in Algeria increased by more than 100% between 2007 and 2017.</p> <p>From a very low base, access to fixed broadband in Nigeria increases by more than 100% between 2024 and 2033.</p>
Increase access to mobile broadband (ICT) (Ictbroadmobilm)	Interpolate from 1 to 1.4	<p>Between 2012 and 2017, access to mobile broadband increased by nearly 200% in Cape Verde.</p> <p>In this intervention, access to mobile broadband increases in Nigeria by more than 100% between 2024 and 2033. Nigeria is on a par with the projected averages for global and African lower middle-income countries by 2050.</p>
Increase access to improved sanitation (sanitation)	Interpolate from 1 to 1.5	<p>Between 2000 and 2010, access to improved sanitation increased by more than 50% in India.</p> <p>In this intervention, access to improved sanitation increases by 35.5% in Nigeria between 2024 and 2033.</p>
Increase access to clean water (watsafem) (piped)	Interpolate from 1 to 1.5	<p>Access rate of piped water is low in Nigeria.</p> <p>Between 2000 and 2010, access to piped water increased by nearly 85% in Kyrgyzstan.</p>

From a very low base, access to piped water in Nigeria increases by 80% between 2024 and 2033.

Economic and Export Diversification

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Improve business regulation (govbusregindm)	Interpolate from 1 to 0.8	<p>To address the opaque business environment of Nigeria.</p> <p>Between 2006 and 2016, the regulatory quality score for Côte d'Ivoire improved by about 35%.</p> <p>The Nigerian regulatory quality score increases by about 14% between 2024 and 2033.</p>
Improve economic freedom (econfreem)	Interpolate from 1 to 1.1	<p>A proxy for strong economic institutions which are crucial for a successful industrial policy.</p> <p>Between 1990 and 2010, the economic freedom score for Bangladesh increased by 31.5%.</p> <p>In this scenario, Nigeria's score improves by about 12% between 2024 and 2033 to reach 7.4 (out of a possible 10).</p>
Improve domestic investment in the economy (Invm)	Interpolate from 1 to 1.15	<p>A proxy for domestic investment in the manufacturing sector.</p> <p>In this scenario, domestic investment increases from 15.7% of GDP in 2024 to 20% in 2033, and tracks with the projected average for lower middle-income Africa by 2050.</p>
Increase foreign investment (FDI inflows)	Interpolate from 1 to 1.15	<p>A proxy for improvement in manufacturing FDI inflows.</p> <p>Between 2007 and 2012, FDI flows to</p>

		<p>Ghana increased by about 3% of GDP.</p> <p>In this scenario, FDI flows to Nigeria increase by 1.25% of GDP between 2024 and 2033, catching up to the average of 3.5% of GDP for African lower middle-income countries by 2033, then tracks with the group to 2050.</p>
<p>Increase remittances (Xworkremitinm)</p>	<p>Interpolate from 1 to 1.15</p>	<p>To provide foreign exchange to ease pressure on the exchange rate and improve macroeconomic stability. Macroeconomic stability matters for industrialisation/manufacturing.</p> <p>In this scenario, remittance inflows into Nigeria double between 2024 and 2033.</p>
<p>Increase labour participation</p>	<p>Interpolate from 1 to 1.1</p>	<p>To promote labour-intensive manufacturing.</p> <p>In this scenario, the labour force in the Nigerian manufacturing sector doubles between 2024 and 2033.</p>
<p>Increase R&D activities (Total) (Randdexpm)</p>	<p>Interpolate from 1 to 1.2</p>	<p>To increase public and private spending on R&D. Technology upgrading is crucial for a robust manufacturing sector. It increases productivity and the quality of products.</p> <p>In this scenario, public spending on R&D in Nigeria increases by nearly 50% from a very low base between 2024 and 2033.</p>
<p>Increase manufacturing export (xsm)</p>	<p>Interpolate from 1 to 1.25</p>	<p>As a result of trade promotion in manufacturing exports.</p> <p>Manufacturing exports in Nigeria increase from 2% of GDP in 2024 to 5.4% in 2033. It reaches 21% of GDP by 2050, compared to 11% on the Current Path.</p>

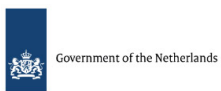
Increase services export (ICT goods)
(xsm)

Interpolate from 1 to 1.1

As a result of trade promotion in services exports.

ICT exports in Nigeria increase marginally to 0.002% of GDP in 2033 and reach 0.006% of GDP by 2050.

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About the authors

Dr Kouassi Yeboua is a senior researcher in African Futures and Innovation programme in Pretoria. He recently served as lead author on ISS studies on the long-term development prospects of the DR Congo, the Horn of Africa, Nigeria and Malawi. Kouassi has published on various issues relating to foreign direct investment in Africa and is interested in development economics, macroeconomics, international economics, and economic modelling. He has a PhD in Economics.

Dr Jakkie Cilliers is the ISS's founder and former executive director of the ISS. He currently serves as chair of the ISS Board of Trustees and head of the African Futures and Innovation (AFI) programme at the Pretoria office of the ISS. His 2017 best-seller *Fate of the Nation* addresses South Africa's futures from political, economic and social perspectives. His three most recent books, *Africa First! Igniting a Growth Revolution* (March 2020), *The Future of Africa: Challenges and Opportunities* (April 2021), and *Africa Tomorrow: Pathways to Prosperity* (June 2022) take a rigorous look at the continent as a whole.

Ms Alize le Roux joined the AFI in May 2021 as a senior researcher. Before joining the ISS, she worked as a principal geo-informatics researcher at the CSIR, supporting various local and national policy- and decision-makers with long-term planning support. Alize has 14 years of experience in spatial data analysis, disaster risk reduction and urban and regional modelling. She has a master's degree in geographical sciences from the University of Utrecht, specialising in multi-hazard risk assessments and spatial decision support systems.

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