Uganda

Appendix: Scenario Interventions

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Chart 46: Appendix

All interventions are for a ten-year period from 2024 to 2033 and are benchmarked against the performance of countries at a similar level of development than Uganda. A total of 67 interventions were made across the eight scenarios, with the Education scenario's 13 interventions being the most.

Name	Description	Country or group	Adjustments within IFs 7.84	Remarks
Governance and Stability scenario				
democm	Democracy multiplier	Uganda	Interpolate from 1 to 1.4.	Burkina Faso improved its democracy by 60% between 2008 and 2018. In the Governance and Stability scenario, democracy in Uganda improves by 41% between 2024 and 2033.
econfreem	Economic freedom (1–10)	Uganda	Interpolate from 1 to 1.1.	Rwanda improved its score by about 23% between 2000 and 2010. Average score

				for Uganda increases by about 6% between 2024 and 2033, above the low-income Africa average. Uganda already has the highest Index of Economic Freedom among its peers.
gemm Gender	Empowerment (0–1)	Uganda	Interpolate from 1 to 1.10 over 10 years.	Between 1995 and 2009, gender empowerment improved by 126% in Ethiopia. Between 2024 and 2033, the intervention improves gender empowerment by 21%, above the average for low income. Uganda has the highest gender-empowerment measure among the low-income African countries.
govcorruptm	Government corruption multiplier (1–10)	Uganda	Interpolate from 1 to 1.30.	Tanzania improved its transparency by 58% between 1998 and 2008. The intervention improves transparency in Uganda by about 11% between 2024 and 2033, above the low-income Africa average but below Rwanda, Burkina Faso and Ethiopia.
goveffectm	Government effectiveness multiplier (0–5)	Uganda	Interpolate from 1 to 1.3.	Historically, Rwanda improved its government effectiveness by 54%

				from 2005 to 2015. The intervention increases Uganda's score by 20%, above the average for low-income Africa but below Rwanda by 2033.
govriskm	Government security risk multiplier (0–1)	Uganda	Interpolate from 1 to 0.93.	IFs initialises government risk from 2017. Improved government security is a pre-condition for sustainable development. The intervention improves government security in Uganda by 11% between 2024 and 2033, above the low-income Africa average.
sfintlwaradd	State failure/internal war, addition – probability (0–1)	Uganda	Interpolate from 0 to 0.1.	Between 1990 and 2000, Rwanda reduced the probability of state failure by 100%. Uganda was able to reduce it by 100% between 2006 and 2016. The intervention reduces the probability of state failure in Uganda by 58% between 2024 and 2033, lower than the low-income Africa average but higher than in Rwanda, Mozambique and Eritrea.
svmulm	Reduce societal	Uganda	Interpolate from 1 to 0.9.	Rwanda was able to reduce total deaths

	violence (conflict and terror)			per 1 000 people from societal violence by 91% between 1995 and 2005. Uganda reduced deaths from societal violence by 32% between 1996 and 2006.
Demographics and Health scenario				
contrusm	Contraception use multiplier	Uganda	Interpolate from 1 to 1.4.	The intervention increases contraceptive use by 70% between 2024 and 2033. By 2033, the rate of contraception use in Uganda will be above the low-income Africa average but still lower than in Rwanda and Malawi.
watsafem (piped water)	Increase pop with access to piped water	Uganda	Interpolate from 1 to 1.3.	Between 2010 and 2020, Ethiopia increased population with access to piped water by 93%, and DR Congo by nearly 70%. The intervention improves access to piped water by 18 percentage points from 22.5% to 40.8% between 2024 and 2033.
sanitationm (improved)	Increase pop with access to improved sanitation	Uganda	Interpolate from 1 to 1.4 between 2024 and 2033.	Mali improved population with access to improved sanitation by 87% between 2000 and 2010. The intervention

				increases the population with access to improved sanitation by nearly 22 percentage points from 23% in 2024 to 45.6% in 2033, still lower than the access rate in eight low-income African countries by 2033.
malmortatiom	Maternal mortality ratio multiplier	Uganda	Interpolate from 1 to 0.8 between 2024 and 2033.	Between 2007 and 2017, Ethiopia reduced maternal mortality rate by 45% and Central Africa Republic by 26%. The intervention reduces the maternal mortality rate in Uganda by 60% between 2024 and 2033, but this will still be higher than in Rwanda.
hlmortcdchldm	Reduces mortality of children under 5	Uganda	Interpolate from 1 to 0.75 over 10 years.	Between 2006 and 2016, Malawi reduced under-5 mortality rate by 50%, and Burkina Faso achieved over 40% reduction within the same period. The intervention will reduce under-5 mortality in Uganda by 47% between 2024 and 2033. The rate is lower than the low-income Africa average but still higher than in Gambia, Rwanda and Eritrea by 2040.
hlmortm (AIDS)	Mortality multiplier	Uganda	Interpolate from 1 to	Burkina Faso

			0.7 between 2024 and 2033.	reduced death from AIDS (in millions) by 66% between 2004 and 2014. The Demographics and Health scenario will reduce deaths from AIDS in Uganda by 60% between 2024 and 2033, on par with Madagascar by 2040.
hlmortm (diarrhea)	Mortality multiplier	Uganda	Interpolate from 1 to 0.7 over 10 years.	In the past, Uganda was able to reduce mortality by 42% between 1998 and 2008. The intervention will reduce deaths in Uganda by 50% between 2024 and 2033.
hlmortm (malaria)	Mortality multiplier	Uganda	Interpolate from 1 to 0.8 over 10 years.	Between 2007 and 2017, Guinea was able to reduce mortality from Malaria by 72%. The intervention will reduce deaths in Uganda by 48% between 2024 and 2033 — lower than in DR Congo and Burkina Faso.
hlmortm (respinfection)	Mortality multiplier	Uganda	Interpolate from 1 to 0.7 over 10 years.	Between 2010 and 2020. Malawi reduced deaths from respiratory infection by 40%. The intervention is poised to decrease deaths in Uganda by 11% between 2024 and 2033.

hlmortm (diabetes)	Mortality multiplier	Uganda	Interpolate from 1 to 0.7 over 10 years.	Rwanda reduced deaths from diabetes by 50% between 1992 and 2002. By 2040 deaths from diabetes in Uganda (109 per 1 000 people) will be fourth lowest among low-income African countries.
hlmortm (OthCommumDis)	Mortality multiplier	Uganda	Interpolate from 1 to 0.8.	Between 2007 and 2017, Ethiopia reduced its deaths from other communicable diseases by about 40%. The intervention reduces deaths in Uganda by 40% between 2024 and 2033. By 2040 Uganda will have fewer deaths from other communicable diseases than Ethiopia, DR Congo, Chad and Madagascar.
hlmortm (OtherNonComm)	Mortality multiplier	Uganda	Interpolate from 1 to 0.95 over 10 years.	Malawi reduced deaths from other non-communicable diseases by 21% between 1994 and 2003. The intervention reduces deaths by 3% between 2024 and 2033. By 2040 Uganda will have fewer deaths from other non-communicable diseases than Ethiopia, DR Congo and Sudan.

Education scenario				
edseclowrvocadd	Lower secondary, vocational share, additive factor, decimal rate	Uganda	Interpolate to 4.	Burkina Faso increased vocational enrolment in lower secondary schools by 60% between 2009 and 2019. The intervention will push Uganda's lower secondary vocational enrolment to 5.6% above the average for low-income African countries of 1.5%.
Edsecupprvocadd	Upper secondary, vocational share, additive factor, decimal rate	Uganda	Interpolate to 4.	Coming from a low base of 2.6%, Ethiopia increased vocational training share of upper secondary education 2 156% to 59.20% between 2001 and 2011. The intervention will see Uganda improve its upper secondary vocational training by 17% between 2024 and 2033. By 2040 Uganda will be below Ethiopia, Rwanda, Mali and Niger.
edtersciencshradd	Tertiary, Sci-Eng share of graduates, additive factor, decimal rate	Uganda	Increase by 10% between 2024 and 2033.	Increase in science and engineering graduates is necessary for quality human capital for sustainable growth and development. The intervention pushes the science and engineering graduate share by

				110%. By 2040 the share in Uganda is still below Togo, Rwanda and Sudan.
edpriintnm	Primary net intake rate multiplier (total)	Uganda	Interpolate from 1 to 1.005 over 10 years.	Niger increased primary net intake by 54% between 2007 and 2017. Uganda will attain 100% primary intake in 2022 before the intervention takes effect.
edprisum	Primary, survival rate, multiplier (total)	Uganda	Interpolate from 1 to 1.25 over 10 years.	Malawi improved survival rate at primary level by 60% between 2004 and 2013. The intervention will push the survival rate in Uganda by 63% between 2024 and 2033.
edseclowrtran	Lower secondary transition rate	Uganda	Interpolate from 1 to 1.25 over 10 years.	Between 2000 and 2010, Niger improved by 45%. The intervention pushes Uganda to 100% by 2032 from 72% in 2024. Togo will attain 100% much earlier than Uganda in 2029.
edsecupprtran	Upper secondary transition rate	Uganda	Interpolate from 1 to 1.25 over 10 years.	Upper secondary transition is low in Uganda, initialised at 39%. The intervention pushes it to 90% by 2033. This is lower than the transition rate in DR Congo and Burundi by 2040.

edseclowrgram	Lower, secondary, graduation rate, multiplier	Uganda	Interpolate from 1 to 1.3. over 10 years.	Lower secondary graduation initialises at 30% and the intervention pushes the lower secondary graduation rate by 58% between 2024 and 2033. By 2040 the graduation rate in Uganda will be above low-income Africa average but still below the level for Democratic Republic of Congo.
edsecupprgram	Upper secondary, graduation rate, multiplier (total)	Uganda	Interpolate from 1 to 1.3.	From an initial low base, the intervention pushes the upper secondary graduation rate by 146% between 2024 and 2033, but still below the rate for Togo by 2040.
edterintm	Tertiary, intake rate, multiplier, total	Uganda	Interpolate from 1 to 1.2 over 10 years.	Madagascar improved its tertiary intake by 61% between 2007 and 2017. The intervention will see Uganda improve its tertiary intake above the average for low-income Africa; however, Rwanda and Togo will have higher tertiary intake than Uganda.
edtergradm	Tertiary, graduation rate multiplier	Uganda	Interpolate from 1 to 1.2 over 10 years.	Between 2007 and 2017, Madagascar improved graduation from tertiary education by 160%. Uganda will see a

				95% improvement in tertiary graduation rate. Above the low-income average, Uganda will have a tertiary graduation rate lower than Togo and Rwanda by 2040.
edqualpriallm	Quality, multiplier on primary (total)	Uganda	Interpolate from 1 to 1.05 over 10 years.	Burkina Faso improved quality at primary level by 31% between 2008 and 2018. The intervention improves quality by 10% from 2024 to 2033. By 2040 Uganda will have quality higher than average low-income Africa but lower than Sierra Leone and Rwanda.
edqualsecallm	Quality, multiplier on secondary (total)	Uganda	Interpolate from 1 to 1.05 over 10 years.	Education quality at secondary level initialises at 35% and the intervention increases quality of secondary education by 6% between 2024 and 2033. This is above the average for low-income Africa but lower than Togo, Somalia and Rwanda.
Agriculture scenario				
ylm	Yields multiplier	Uganda	Interpolate from 1 to 1.80 over 10 years.	Mali improved yields per hectare 100% between 2009 and 2019. The intervention will improve agricultural yield in Uganda to

				56% between 2019 and 2040. However the value of 6.4 tons is still below the Current Path value for Malawi by 2040 of 12.9.
landirareaactualm	Multiplier on land actually irrigated	Uganda	Interpolate from 1 to 1.20 by 2033.	Land area irrigated initialises from 10.5% and the intervention improves land irrigated by 28% between 2024 and 2033.
landirareaequipm	Multiplier on land equipped for irrigation	Uganda	Interpolate from 1 to 1.20 by 2033.	Uganda improved its land area equipped for irrigation by 25% between 1998 and 2012. The intervention will improve it by 23% between 2024 and 2033.
aglossprodm	Loss rate of agricultural production (crop)	Uganda	Interpolate from 1 to 0.8.	Loss rate of agricultural production initialises at 10.2% and the intervention reduces crop loss by 20% between 2024 and 2033. By 2040 Uganda will reduce agricultural production loss to lower than its peers in low-income Africa but higher than in Eswatini.
aglosstransm	Loss rate of agriculture as moves from producer to consumer multiplier (crop)	Uganda	Interpolate from 1 to 0.8.	Crop loss and waste initialises at 16.8% and the intervention reduces food waste by 23% between

				2024 and 2033. By 2040 Uganda will reduce food waste lower than average low-income African peers but higher than Somalia, Eritrea and South Sudan.
clpcm	Per capita calorie demand multiplier (total)	Uganda	Interpolate from 1 to 1.1 by 2033.	Between 2009 and 2019, calories available in Sudan increased by 56%. The intervention will increase Uganda's available calories by 51% between 2024 and 2033. By 2040 Uganda will have more calories available than the average low-income African country, but still below the level for Ethiopia and DR Congo.
Manufacturing/Transfers scenario				
govhhtrnwelm (unskilled)	Government to household welfare transfers	Uganda	Interpolate from 1 to 1.1.	Transfers to the household are necessary to smoothen the negative redistributional effect of manufacturing on households. The intervention will push government household transfer by 2.3 percentage points from 7.4 in 2024 to 9.7 in 2033. By 2040 the Ugandan government will make transfers to households larger

				than the average for its peers but lower than in Somalia.
hhtaxrm	Household tax rate multiplier, by skill level	Uganda	Unskilled labour: interpolate from 1 to 0.8. Skilled labour: interpolate from 1 to 1.1.	Government tax revenue from unskilled (skilled) labour initialises from US$563 (US$293) million. The intervention increases government tax revenue from taxing unskilled labour by 105% between 2024 and 2033 and tax revenue from skilled labour by 214% during the same period.
govbusregindm	Government regulation of business index multiplier	Uganda	Interpolate from 1 to 0.9.	A private sector led growth is supported by little government interference in the day-to-day operations of businesses. Reducing government regulation is necessary for promoting manufacturing in Uganda.
idsm	Investment in manufacturing sector	Uganda	Interpolate from 1 to 1.1.	Investment in manufacturing share of GDP initialises from 6.2% and the intervention improves the manufacturing investment share of GDP by 43% to 9.5% of GDP between 2024 and 2033. By 2040 in Uganda the

				projected manufacturing share of GDP will surpass the average for peers but lower than in Algeria and Myanmar.
randdexpm	Increase research and development (R&D) activities (total)	Uganda	Interpolate from 1 to 1.21.	R&D share initialises from 0.08% of GDP and the intervention improves R&D share of GDP by 21% between 2024 and 2033. By 2040 the R&D share GDP in Uganda is on par with Togo.
labparm	Total labour participation rate (male and female), female more aggressive	Uganda	Male: Interpolate from 1 to 1.1 over 10 years from 2023 to 2033. Female: Interpolate from 1 to 1.2 over 10 years from 2023 to 2033.	Historically, male labour participation has been declining in Uganda. The intervention will push male labour participation by 7% between 2024 and 2033, and on par with Mali by 2040. Female participation rate will improve by 10% between 2024 and 2033. By 2040 Uganda will have a higher female participation than the projected average for low-income peers but lower than Mozambique, Ethiopia and Madagascar.

Infrastructure/Leapfrogging scenario

qem – Q (OthRenew)	Capital cost to output ratio in energy	Uganda	Interpolate from 1 to 0.9.	Lower energy cost to output will enhance the production of more energy to fuel economic growth and development.
Enpm (OthRenew)	Energy production multiplier for other renewables	Uganda	Interpolate from 1 to 1.2.	From a very low initial value of 1 million barrel of energy, the intervention increases other renewable energy production by 300% between 2024 and 2033. By 2040 Uganda's production of other renewable energy will be just below Ethiopia and Sudan among peer low-income African countries.
infraelecaccm (urban)	Electricity access multiplier urban	Uganda	Interpolate from 1 to 1.2 over 10 years from 2023 and 2043.	Burkina Faso improved urban electricity access by 45% between 2009 and 2019. The intervention improves urban electricity access by 42% between 2024 and 2033. By 2040 Uganda is projected to reach 98.9% of urban population with access, but this will still be below 100% as in Eritrea and Togo.
infraelecaccm (rural)	Electricity access multiplier rural	Uganda	Interpolate from 1 to 1.3 over 10 years from 2023 to 2043.	Between 2009 and 2019, Eritrea improved rural access to electricity

				by 99%. The intervention improves rural access by 72%, or 19 percentage points, between 2024 and 2033. By 2040 rural access will be on par with Eritrea.
ictbroadmobilm	ICT mobile broadband multiplier	Uganda	Interpolate from 1 to 1.28.	From a low base, Uganda improves mobile broadband subscription by 1 347% between 2010 and 2017. The intervention improves mobile broadband subscription by 101% between 2024 and 2033.
ictbroadcostm	ICT broadband multiplier on cost of adding a connection	Uganda	Interpolate from 1 to 0.9.	The reduced cost of adding a connection improves connectivity to ICT broadband infrastructure. Uganda will need more broadband connections to leverage the opportunities that digitalisation offers. A reduced cost of adding a connection improves connectivity to ICT.
ictbroadm	ICT broadband multiplier	Uganda	Interpolate from 1 to 1.3.	Togo improves its connection by 2 835% between 2008 and 2018. The intervention improves fixed

				broadband subscriptions by 298% between 2024 and 2033. The intervention leaves Uganda as a low-income African country with the 15th highest number of fixed broadband subscriptions by 2040.
	Paved road	Uganda	Interpolate from 1 to 1.15.	Initialising from 23% of total roads, the intervention improves paved road share of total roads by 91% between 2024 and 2033. By 2040 the intervention pushes Uganda slightly above Rwanda.
gdpinformshrm	Reduce Informality	Uganda	Interpolate from 1 to 0.8.	Between 1998 and 2008, Sudan reduced its informality by 49%. The intervention decreases informality by 23% between 2024 and 2033.
Free Trade scenario				
XSM	Export multiplier – Manufacturing	Uganda	Interpolate from 1 to 1.2.	Initialising from 3.6% of GDP, manufacturing export value as per cent of GDP improves by 113% between 2024 and 2033. By 2040 Uganda's projected manufacturing export share of GDP

				will be higher than the average for low-income Africa but lower than 10 other income group peers.
XSM	Export multiplier – Agriculture	Uganda	Interpolate from 1 to 1.2.	Initialising from 5.8% of GDP, agricultural export share of GDP declines by 41% between 2024 and 2033, above the average for peers but below 11 other income group peers by 2040.
XSM	Export multiplier – Services	Uganda	Interpolate from 1 to 1.2.	Initialising from 5.5% of GDP, services export in Uganda increases by 71% between 2024 and 2033. By 2040 services export share will be higher than the average for low-income Africa but still below Burundi.
XSM	Export multiplier – ICT	Uganda	Interpolate from 1 to 1.2.	Initialising from 0.06% of GDP, the ICT export share will improve by 165% between 2024 and 2033, above average for its peers but still below six other low-income African countries by 2040.
XSM	Export multiplier – Materials	Uganda	Interpolate from 1 to 1.20.	Initialising from 0.038% of GDP, share of materials will improve by more than double between

				2024 and 2033, below the average for low-income Africa by 2040.
mfpadd	Increase multifactor productivity	Uganda	Interpolate from 0 to 0.06.	Free trade unleashed productivity growth.
XSM	Export multiplier – Energy	Uganda	Interpolate from 1 to 1.2.	Initialising from 0.038% of GDP, share of energy export in Uganda will improve by 140% between 2024 and 2033. By 2040 Uganda is projected to rank 18th among peers.
mtarifftaxrm	Import tariff tax multiplier by country and sector	Uganda	Interpolate from 1 to 0.8.	Lower import tariffs promote free trade between countries and boost growth and development.
External Financial Flows scenario				
xworkremitinm	Worker remittances multiplier (positive numbers are receipts)	Uganda	Interpolate from 1 to 1.2 over 10 years from 2023 to 2033.	Uganda increased its remittance share of GDP by 234% between 2009 and 2019. Between 2024 and 2033 remittance is projected to increase by 115%.
aidrecm	Aid (foreign) receipts multiplier	Uganda	Interpolate from 1 to 1.22.	Between 2006 and 2016 Central African Republic improved its aid receipt share of GDP by 197% and Malawi by 26%. Between 2024 and 2033 the projected share of aid receipts

				in GDP for Uganda is poised to decrease by 20%.
xfdistockm	Foreign direct investment, stocks of investment from abroad, multiplier	Uganda	Interpolate from 1 to 1.05 over 10 years from 2023 to 2033.	Togo was able to improve its FDI receipt by 132% between 2010 and 2020. In the intervention, FDI inflow to Uganda is projected to rise by 165% between 2024 and 2033. By 2040 Uganda will receive more FDI (share of GDP) than an average low-income African country but still below Mozambique and Liberia.
xfdistoutm	Foreign direct investment, stocks of outward investment, multiplier	Uganda	Interpolate from 1 to 0.9.	As a proxy for capital flight, reducing outflow of FDI is paramount to building the domestic capital stock of Uganda.
xportfoliom	Portfolio investment, stocks of investment from abroad, multiplier	Uganda	Interpolate from 1 to 1.1.	Investment in financial assets in Uganda promotes the financial market development and its long-term growth.
Combined Agenda 2063 scenario				
Combination of all the above				

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Cite this research

Mustapha Jobarteh (2024) Uganda. Published online at futures.issafrica.org. Retrieved from https://futures.issafrica.org/geographic/countries/uganda/ [Online Resource] Updated 13 December 2023.

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Mustapha Jobarteh joined the ISS in January 2022 as a Senior Researcher in the African Futures and Innovation programme in Pretoria. Before joining ISS, Mustapha was a senior lecturer and Head of the Department of Economics and Finance at the University of the Gambia and a research fellow with the Center for Policy, Research and Strategic Studies. His interests include macroeconomics, international trade and econometric modelling. Mustapha has a PhD in economics from Istanbul Medeniyet
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