Development prospects for the Horn of Africa countries to 2040

Annexure

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Current Path

This project used IFs 7.63 with an updated IFsHist file dated October 2020. Among other updates, the IFsHist file included the IMF global growth forecasts that were released in October 2020, reflecting the fund's growth forecast for 2020 and 2021 amid the COVID-19 pandemic.

The following data amendments were made to the IFs Current Path forecast for the Horn of Africa countries in the form of a project data file:

Chart A1: Project data

Series updated	Definition	Source	
PopulationYouthDep%	Population of young people (<15) as per cent of total	World population prospects	
PopYouthBulgeBy15	Youth bulge	World population prospects	
HealthMalarDthsper100000	Malaria deaths per 100 000	WHO World Malaria Reports, 2009-2019	
IncBelow1D90c%WDI	Population below poverty line of $1.90	World Bank estimates	
Corruption	Level of corruption	Transparency International	
Freedom	Civil and political freedom	Freedom House	
AgProdCereals	Production of cereals	FAO	
GovExpense%GDP	Government expense as % of GDP	Government financial statistics database, IMF	
GovtDebt%GDP	Central government debt as % of GDP	World Economic Outlook database, IMF	

RoadsTotalNetwork	Roads, total network, kilometres	CIA Factbook 2019
WSSJMPWaterTotal%OtherImproved	Access to other improved water (%)	WHO/UNICEF JMP global database
WSSJMPWaterTotal%Piped	Access to piped water (%)	WHO/UNICEF JMP global database
WSSJMPSanitationTotal%Improved	Access to improved sanitation (%)	WHO/UNICEF JMP global database
RoadsPaved%	Roads paved	CIA Factbook 2019
PolityDemoc	Polity project's measure of autocracy	Center for Systemic Peace
PolityAutoc	Polity project's measure of democracy	Center for Systemic Peace

Scenario interventions

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

Chart A2: Improved Governance scenario component

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Increase governance effectiveness (goveffectm)	Interpolate from 1 to 1.1 for Ethiopia and 1.25 for other countries	Ethiopia has a better score compared to its peers, which need to make more effort to improve government effectiveness. Between 2010 and 2019, Benin increased its score by about 25%. This intervention increases the average score in the Horn slightly above the projected average for low-income Africa by 2040 but remains below the score of Rwanda in the same year.
Reduce governance corruption	Interpolate from 1 to 1.1 for Ethiopia,	Ethiopia has a better score compared

(govcorruptm)	and 1.3 for other countries	to its peers which need to make more effort to reduce governance corruption. Between 1998 and 2008, the score for Tanzania increased by about 58%. The intervention increases the average score of the Horn of Africa by 59% between 2024 and 2033 but remains below the projected average for Rwanda by 2040.
Improve democracy (democm)	Interpolate from 1 to 1.2	Between 2012 and 2017, the score of Burkina Faso increased by 60%. The average democracy score in the Horn improves by 50% between 2024 and 2033 and remains slightly below the projected average score for low-income Africa by 2040.
Improve government business regulation	Interpolate from 1 to 0.8	Between 2009 and 2014, the regulatory quality in Laos improved by about 15%. The average regulatory quality score improves by about 33% between 2024 and 2033 but remains below the projected score for low-income countries by 2040.
Economic freedom	Interpolate from 1 to 1.2	Between 2000 and 2010, Rwanda improved its score by about 23%. The average score for economic freedom in the Horn of Africa increases by about 34% between 2023 and 2033 and remains below the projected score for Rwanda by 2040.
Increase aid receipts	Interpolate from 1 to 1.2	Represents the contribution of the international community to enhance Horn governments' capacity to deliver public services.
Increase social welfare transfer	Interpolate from 1 to 1.2	Represents the rollout of a cash grants programme by the Horn. Governments to support poor households.

Improve gender empowerment (gem)	Interpolate from 1 to 1.3	Between 1995 and 2009, Zambia improved its score by nearly 57%. This intervention brings the average score in the Horn of Africa above the projected average for low-income Africa but below the score of Uganda by 2040.
Improve governance security (govriskm)	Interpolate from 1 to 0.975 for Djibouti, and 0.9 for other countries	Djibouti is socially and politically more stable than its peers in the region. This intervention brings the average government security index to the projected average for low-income Africa by 2040.
Reduce societal violence (conflict and terror) (svmulm)	Interpolate from 1 to 0.8 for Djibouti and 0.5 for other countries	Djibouti is socially and politically more stable than its peers in the region. Long-term peace and security are necessary to put the Horn nations on the path of inclusive sustainable growth.
Reduce the probability of state failure (internal war) (sfintlwaradd)	Interpolate from 0 to -0.3 for Djibouti and -0.5 for other countries	Djibouti is socially and politically more stable than it peers in the region. This intervention will decrease the probability of state failure in the Horn of Africa.

Chart A3: Agriculture scenario component

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Increase crop yields (ylm)	Interpolate from 1 to 1.75 for Ethiopia, Eritrea and Sudan; 2.75 for South Sudan; 1.5 for Djibouti and 1.25 for Somalia	Between 2011 and 2016, Mozambique increased average yield by more than 50%. Crop yields are very low in Sudan and Sudan while it is high in Djibouti. The average crop yield in the Horn increases by about 72.8% between 2024 and 2033, slightly above the projected average

		for low-income Africa by 2040 but far below the level of Rwanda.
Increase crop land (ldcropm/forestm)	Interpolate from 1 to 1.2 for Ethiopia and Sudan. Interpolate from 1 to 0.8 by 2030 and 1 by 2040 for South Sudan, Djibouti, Eritrea and Somalia	Increases in the cultivated area will come from bringing some areas currently covered by forest and grass under cultivation. Between 1995 and 2005, Burkina Faso increased its crop land by 44%. This intervention increases average crop land in the Horn by about 16% between 2024 and 2040.
Increase land area equipped for irrigation (Landirareaequipm)	Interpolate from 1 to 1.1 for Ethiopia and Djibouti, 1.2 for Somalia and 1.3 for other countries	Between 2001 and 2011, Burkina Faso increased its land area equipped for irrigation by more than 100%. The average land area equipped for irrigation in the Horn increases by 17% between 2024 and 2040, below the projected average for low-income Africa.
Reduce agriculture loss from producer to consumer (aglosstransm)	Interpolate from 1 to 0.6	Infrastructure shortage in the rural areas in the Horn countries causes huge losses when transporting agricultural production from producer to consumer.
Reduce loss rate of agriculture production (aglossprodm)	Interpolate from 1 to 0.6	Reduces agricultural production losses by about 4.3 percentage points between 2024 and 2033.
Increase food access Calories per capita (clpcm)	Interpolate from 1 to 1.15	Between 1997 and 2002, Calorie per capita increased in Rwanda by 23%. The average Calories per capita in the Horn increases by about 19% between 2024 and 2033, above the projected average for low-income Africa by 2040 but on par with Guinea in the same year.

Chart A4: Human Capital and Basic Infrastructure

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Increase contraceptive use (contrusm)	Interpolate from 1 to 1.2 for Djibouti, Eritrea and Ethiopia, and 1.5 for other countries	Between 2000 and 2005, the contraceptive use rate doubled in Ethiopia. The contraceptive use in the Horn increases by about 60% between 2024 and 2033, above the projected average for low-income Africa by 2040 but below the level of Malawi in the same year.
Reduce communicable disease mortality for children under five (hlmortcdchldm)	Interpolate from 1 to 0.9 for Djibouti, Eritrea and Ethiopia, and 0.7 for others	The Horn region has one of the highest infant mortality rates in the world. In this scenario, the Horn region achieves the SDG target relative to infant mortality which is less than 25 deaths per 1 000 live births by 2030.
Reduce malaria prevalence (hlmalariaprevm)	Interpolate from 1 to 0.6	Between 2000 and 2009, malaria prevalence in Afghanistan declined by about 40%. This intervention brings malaria prevalence in the Horn of Africa to the level of Afghanistan by 2040.
Reduce neonatal mortality (neonatmorm)	Interpolate from 1 to 0.7	Between 2005 and 2014, Rwanda reduced neonatal mortality by 37%. This intervention reduces the average neonatal mortality by about 63% between 2024 and 2033, on par with the projected average for Rwanda in 2040.
Reduce mortality from diarrhoea (hlmortm)	Interpolate from 1 to 0.7	Between 2015 and 2019, Mali reduced mortality from diarrhoea by about 30%. The average mortality rate from diarrhoea in the Horn declines to reach the projected rates for Afghanistan and Rwanda by 2040.
Reduce severe acute malnutrition	Interpolate from 1 to 0.7	Severe acute malnutrition rate

(malnchpsam)		among children under five in the Horn is below the projected average for low-income Africa by 2040 but remains above the projected rate for Rwanda in the same year.
Reduce malnutrition (malnm)	Interpolate from 1 to 0.7	This intervention brings the percentage of malnourished people in the Horn to the level of Rwanda by 2040.
Reduce maternal mortality ratio (matmortratiom)	Interpolate from 1 to 0.7	Between 2000 and 2009, Burkina Faso reduced maternal mortality by about 30%. This intervention brings the maternal mortality ratio slightly above the projected average ratio for low-income Africa but on par with Malawi by 2040.
Increase net primary intake (edpriintnm)	Interpolate from 1 to 1.3	To ensure age-appropriate learners enrol in school. This intervention puts the average net primary intake in the Horn on par with the projected rates for Uganda and Rwanda by 2040.
Increase the primary education survival rate (edprisurm) (Total)	Interpolate from 1 to 1.2 for Ethiopia and South Sudan	With the exception of Ethiopia and South Sudan, the other Horn countries are doing well enough in primary survival according to IFs data. Gambia increased the primary education survival rate by about 22% between 2005 and 2015. The average primary survival rate in the Horn is in line with the projected rate for Afghanistan.
Increase gender equity time for primary intake (edprigndreqintm) (edprigndreqintn)	Interpolate from 2024 to reach gender parity by 2033 (10 years)	To reduce gender disparity in primary intake.
Increase gender equity time for primary survival rate (edprigndreqsur)	Interpolate from 2024 to reach gender parity by 2030 (10 years)	To reduce gender disparity in primary survival rate.

Improve the quality of primary education (edqualpriallm)	Interpolate from 1 to 1.2	Chad improved its score by 15% between 1995 and 2005. The average score for the Horn region is on par with the projected score for low-income Africa by 2040.
Increases rate of transition from primary to lower secondary (edseclowrtranm)	Interpolate from 1 to 1.2	Between 2004 and 2014, the transition rate from primary to lower secondary in Uganda increases by about 41%. In this intervention, the average transition rate in the Horn of Africa is on par with Uganda by 2040.
Increases transition from lower to upper secondary (edsecupprtranm)	Interpolate from 1 to 1.2	Between 2003 and 2010, the transition rate from lower secondary to upper secondary in Burkina Faso increases by about 29%. The average transition rate from lower secondary to upper secondary in the Horn reaches 98% by 2040, slightly above that of Rwanda in the same year.
Increase vocational training in upper secondary school (Edsecupprvocadd)	Interpolate to 4	Participation rate in vocational training in Niger increased from 15.34% in 2005 to 37.18% in 2015 (more than double). This intervention brings the average rate in the Horn to 31.6% by 2040, above the projected average for low-income Africa but below that of Niger in the same year.
Improve the quality of secondary education (edqualsecallm)	Interpolate from 1 to 1.2	Burundi's score increased by about 10% between 2015 and 2019. The average score of the quality of education in the Horn is on par with Togo by 2040.
Increase tertiary intake rate (edterintm)	Interpolate from 1 to 1.4	From a very low base, tertiary intake in Burundi increased by nearly 90% between 2010 and 2015. Tertiary intake increases by about 69% between 2024 entre 2034.

Increase graduation rate in tertiary education (Edterscieshradd) (science & engineering)	Increase by 10% between 2024 and 2033 and hold	From a very low base, the share of science and engineering students in tertiary graduates in Sierra Leone increased by more than 80% between 2015 and 2019. The average share of science and engineering students in tertiary graduates increases by about 80% between 2024 and 2033 in the Horn region.

Increase access to electricity (Infraelecaccm) (Rural)	Interpolate from 1 to 1.3	Between 1994 and 2004, electricity access in rural areas increased by about 46% in Nigeria.
Increase access to electricity (Infraelecaccm) (Urban)	Interpolate from 1 to 1.3	Between 2003 and 2013, Gambia increased electricity access by about 33% in urban areas.
Increase roads paved length (Infraroadpavedpcntm)	Interpolate from 1 to 1.2	Between 2004 and 2008, Burkina Faso increased its road paved length by 28%.
Increase access to fixed broadband Internet (ICT) (Ictbroadm)	Interpolate from 1 to 1.4	Fixed broadband subscriptions per 100 people increased by about 160% between 2011 and 2016 in Uganda.
Increase access to mobile broadband (ICT) (Ictbroadmobilm)	Interpolate from 1 to 1.4	In Burkina Faso, mobile broadband internet subscriptions per 100 people increased from nine to 29 subscriptions per 100 people between 2013 and 2017 (over 200% increase).
Reduce access to unimproved water sources (Improve access to safe water) (Watsafem)	Interpolate from 1 to 0.6 for South Sudan and 0.7 for other countries	Access to safe water in Ethiopia increased by about 69% between 2005 and 2015. This intervention

		increases access to improved water to 96% by 2040, slightly above low-income Africa (88.1%).
Improve access to sanitation (Sanitationm)	Interpolate from 1 to 1.5 for South Sudan and 1.3 for other countries	From 2000 to 2015, access to improved sanitation increased from 9.5% to 22.5% (more than double) in Burkina Faso. This intervention increases access to improved sanitation from 31.1% in 2023 to about 86% by 2040 against 81% on the Current Path on par with the projected average for low-income Africa by 2040.

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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 oce 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.

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