



Health, Prosperity, Stability:

Promoting Kenya Vision 2030

Aid Consortium Report

GLBL 422

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A Message from the President of Kenya

The decade of the 2020s has presented the nation of Kenya with immense challenges and fantastic opportunities. As our nation begins to recover from the global pandemic, we are also faced with a wide-range of difficulties. Kenya must face the challenges head on - from food security to access to clean water to housing to healthcare. The people of Kenya are tasked with the great responsibility of forging a better future for ourselves and for future generations.

But we cannot do it alone. In our Kenya Vision 2030 plan for development, we have identified the Big Four sectors critical to accomplishing our vision: food security, affordable housing, manufacturing, and affordable healthcare for all. With our aid partners, we have begun several projects aimed at enhancing the development capacities of these sectors.

The material challenges we face have also been compounded by prior acts of government malfeasance. The people of Kenya understand that, in order to maximize the ability to develop our nation, we must hold elected officials to a high-standard of integrity to build trust with our global partners. In recent years, we have organized two initiatives - the Kenya Leadership Integrity Forum, as well as the Ethics and Anti-Corruption Commission - to root out corruption.

In this report, representatives charged with spearheading the multi-sectored development of Kenya will outline the ways in which we may collaborate with our generous global partners to further our mutual interest in creating a more healthy, more stable, and more prosperous Kenya. Under the umbrella of the Big Four, our representatives will examine current development projects and also explain to potential aid partners where there is still untapped potential. The Kenyan government looks forward to engaging in multilateral dialogue with potential partners at the upcoming aid consortium.



Kenya – Key Figures

Demographics and Health –

The Kenyan population in 2023 is 57.1 million people, which is 0.69% of the total world population. Around 27.8% of the population resides in Urban areas, which leaves the majority of the population in rural areas. The median age for the Kenyan population is 20.1 years, with 67 years being the average life expectancy. The population growth rate for Kenya is currently 1.99% from 2022 - 2023. The main two causes of death in Kenya are HIV/AIDS and Chronic disease (hypertensive diseases, cardiovascular diseases, and cancer). Recently, there has been a shift towards higher rates of mortality from non-communicable disease, which now is the highest cause-specific mortality percentage in Kenya for 2023. Around 41% of Kenyans do not have access to safe drinking water, however, access to safe water has increased by 12% since 2000. Over 71% of Kenyans do not have access to basic sanitation, this number has increased by 5% since 2000.

Economic makeup –

The most important exports to Kenya's economy are agricultural products. Tea is the largest Kenyan export, followed by coffee, tobacco, iron, petroleum, and cement. The main export partners of Kenya are The United Kingdom, The United States, the Netherlands, Uganda, Tanzania, and Pakistan. At the end of 2022, the estimated GDP of Kenya was \$265 billion US dollars, in terms of purchasing parity. Kenya has the 8th highest GDP in Africa, and recently reached lower-middle income status in 2022. The COVID-19 pandemic, however, did have a substantially detrimental impact on the economy in Kenya, with inflation reaching 6.11% in 2021.

Kenya Aid Consortium Development Report

Introduction

This report will prioritize and summarize the development challenges facing Kenya using the plans and projects that have been established by development professionals in the Kenyan Government. We will highlight areas where there is potential for partnerships with donor agencies and nations to be established for the purpose of advancing the Kenya 2030 Vision. The report will feature the domains of governance, food and water, manufacturing, and healthcare as emphasized by present development professionals and the respective agencies they represent. These domains synergize directly and indirectly with the Big 4 Agenda, and are crucial parts of meeting the goals of the Kenya 2030 Vision and its Medium Term Plans.



Development aid has played an important role in advancing Kenya’s vision. It is our goal to provide both enough information for donor agencies to understand certain specifics of Kenya’s development challenges and successes, but also to provide a narrative that has developed through a protocols of process tracing¹ strong enough to paint a proper picture of our country’s challenges and strengths, which can fill in the cracks of this relatively brief report. We look forward to future partnerships with the various donor organizations around the world, and we believe that Kenya has excellent potential in both diplomacy and development. Many opportunities for project and programme aid are present. Kenya has much to offer the world and we believe aid relationships will have far reaching impacts for achieving regional and global development goals.

Governance

(Figure 0² - Members of the Ethics & Anti-corruption Commission, Kenya Integrity Leadership Forum, & National Coordinating Committee meet to create the Kenya Integrity Policy 2019-2023)



Oftentimes there are concerns from the donor community that poor governance and rampant corruption will corrode aid projects and programs, and frustrate donor-recipient relationships³. Kenya has made significant strides in governance and anti-corruption in

recent years that show our government's willingness to build partnerships with donors and address these concerns directly. Legislation such as the Anti-corruption and Economic Crimes Act in 2003, the Ethics and Anti-corruption Act of 2011, and the Bribery Act of 2016 work to prevent, investigate, and punish the crime of bribery, abuses of office, embezzlement, fraud and all forms of corruption⁴.

¹ Swedlund, Haley J. *The Development Dance: How Donors and Recipients Negotiate the Delivery of Foreign Aid*, 2017. p. 37

² Figure 0 - Maadili, Pamoja T. and Kenya Leadership Integrity Forum. “Kenya Integrity Plan 2019-2023.” *Eacc.Go.Ke*. Kenya Leadership Integrity Forum, 2019.

<https://eacc.go.ke/default/wp-content/uploads/2021/03/KIP-2019-to-2023-FINAL-1.pdf>, p. 43

³ De Haan, Arjan. *How the Aid Industry Works: An Introduction to International Development*, 2009. <https://www.kpbooks.com/uploads/553a966f3bcd8.pdf>. p. 82

⁴ Maadili, Pamoja T. and Kenya Leadership Integrity Forum. “[Kenya Integrity Plan](#) 2019-2023.” p. 7, 11



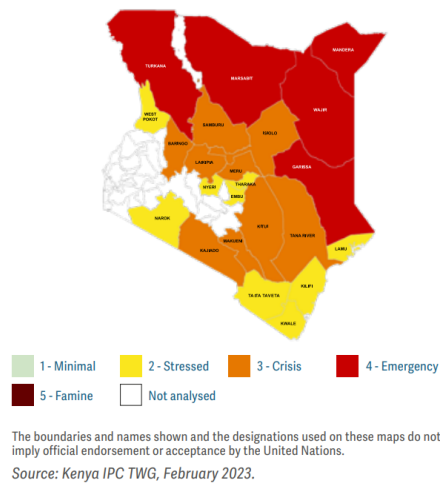
A major institution guiding anti-corruption efforts is the Kenya Integrity Leadership Forum (KILF), founded in 2006, which works to bring together 20 sectors of society to coordinate anti-corruption efforts and promote integrity and good governance. These efforts include creating one of the government’s flagship policies, the Kenya Integrity Policy, which provides an inclusive framework for mapping out governance and corruption across many sectors⁵.

Challenges still remain, including the slow pace of developing policies and laws, unsatisfactory contributions from the Faith Sector in advancing anti-corruption, and the socio-cultural normalcy of corruption which is difficult to transition out of. However, the KILF has identified ways forward by using legislation to enhance coordination among civil society stakeholders⁶. Our efforts to address corruption and governance issues demonstrates Kenya’s hope to develop robust partnerships with the donor community and to elicit interest in Kenya’s development goal, successes, and challenges.

Food Insecurity & Import Dependence

Projected IPC acute food insecurity situation, March–June 2023

(Figure 1⁷ - Projected Food Insecurity)



Food & nutrition security is a massive concern for Kenya that intersects with numerous development categories including health, economic growth, poverty alleviation, security & law enforcement, infrastructure, and land management & conservation. Insecurity in Kenya has been elevated due to cyclical drought and below average crop and livestock production. The Agriculture Sector underachieved targeted growth throughout the third Medium Term Plan (2018-2022) largely because of rain-dependence, prolonged drought, and climate change⁸. The Vision 2030 plan prioritizes macroeconomic stability that can nurture a generative development environment and stable food prices are a

major part of maintaining this stability. Food price increases contribute to inflation volatility, especially during dry periods and prolonged drought⁹. In August 2022 Kenya’s

⁵ Ibid, p. 2-3

⁶ Ibid, p. 15-16

⁷ Figure 1 - Food Security Information Network. “[Global Report on Food Crisis 2023](#),” p. 101

⁸ The National Treasury & Planning State Department for Planning. “[Fourth Medium Term Plan 2023-2027 Concept Note](#),” February 2022. p.15

⁹ The National Treasury & Planning State Department for Planning. “[Kenya Vision 2030: A Globally Competitive and Prosperous Kenya](#),” October 2007. p.19

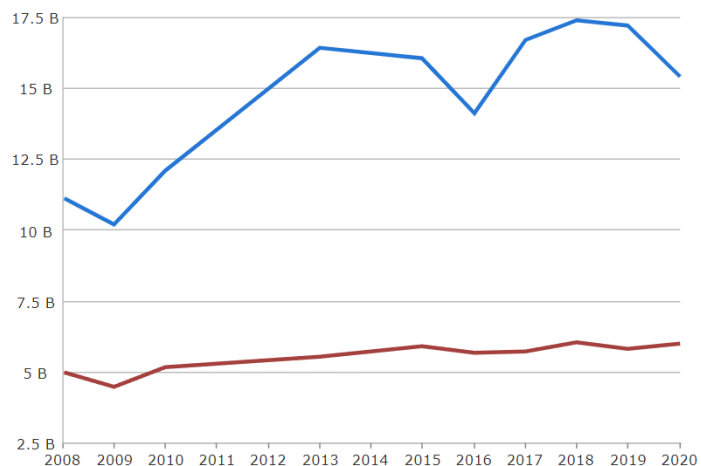


inflation rate of 8.3% was at a five year high, before being broken again with a 9.6% rate in October 2022, driven by increasing food, transport, and fuel prices¹⁰.

Insecurity is a rising concern in arid and semi-arid land (ASAL) regions in Kenya due to 5 consecutive poor rainy seasons that have created an unforgiving, ongoing cycle of drought. As shown in figure 1, the ASAL counties to the northwest are expected to deteriorate from Integrated Food Security Phase Classification (IPC) 3, referred to as Crisis phase, to IPC 4, or Emergency phase, as the middle months of 2023 proceed. 32% of analyzed populations in Kenya, approximately 5.4 million people, are predicted to be at IPC Phase 3 or higher by mid-2023¹¹. These conditions have left 5 million people without adequate amounts of water for drinking, cooking and cleaning. The dried pasture lands have brought down milk production well below 5 year averages while millions of livestock have perished, erasing over \$1.5B. The rising scarcity of milk is detrimental to the diets of local children and is presently a major driver of undernutrition¹².

Figure 2¹³ - Imports (blue) vs. Exports (red) 2008-2020

The drought effects are not the only stress facing Kenyan food security. Alongside dry conditions driving up food prices, the conflict in Ukraine and the surrounding trade issues have contributed to the degradation of purchasing power of Kenyan households as the price of local cereals rise above national averages.



Increased import bills, combined with a massive trade deficit due to the \$7B/\$23B export to import ratio¹⁴, has put pressure on limited foreign exchange reserves which force currency depreciations and further drive up the cost of living¹⁵. Trade deficits have been an ongoing problem for Kenyan development as shown by Figure 2, but have been exacerbated much further by the present polycrisis.

¹⁰ Famine Early Warning System Network. “[Kenya Food Security Update](#).” August 2022; Food Security Information Network. “[Global Report on Food Crisis 2023](#).” May 2023. p. 102

¹¹ Ibid, p. 101

¹² Ibid, p. 102-3

¹³ Figure 2 - World Integrated Trade Solution and World Bank Group. “Kenya Trade Summary 2020.” wits.worldbank.org, n.d.

<https://wits.worldbank.org/CountryProfile/en/Country/KEN/Year/2020/Summary>.

¹⁴ The Observatory of Economic Complexity. “Kenya,” n.d.

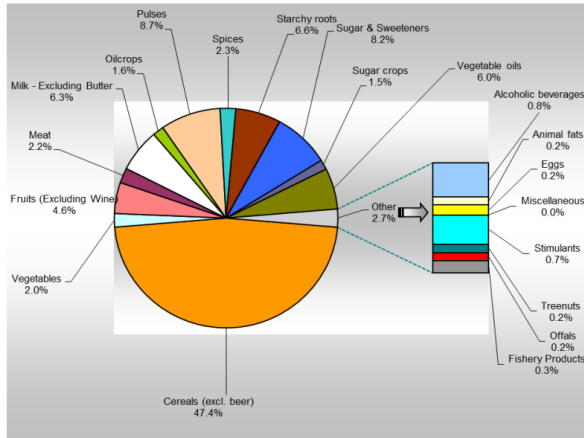
<https://oec.world/en/profile/country/ken/?compareExportsO=comparisonOption5&flowSelector1=flow1&tradeScaleSelector1=tradeScaleO&yearlyTradeFlowSelector=flow1>.

¹⁵ Food Security Information Network. “[Global Report on Food Crisis 2023](#).” p. 102



To address the drought emergencies of ASAL regions there must be a focus on water security, conservation of available water and agricultural resources, infrastructures that can increase water availability and that can facilitate economic growth and resilience. Financial capabilities and partnerships that can enable these projects are necessary for building up infrastructure at a pace that can meet needs. The following sections will address the development challenges, successes, and present needs of the Kenyan people

in regard to food and water security while focusing on recent infrastructure, policy, governance, and conservation efforts that may be relevant to the global donor community.



Cereals

(Figure 3¹⁶ Caloric Supply by Main Food Groups, 2020)

Agriculture is a mainstay of the Kenyan economy and of millions of livelihoods. The

African Development Bank reported in 2020 that the agricultural sector made up 52% of Kenya's total GDP¹⁷. The Kenyan Government reports that agriculture contributes 34% of GDP directly, with an additional 27% indirect contribution through distribution, manufacturing and service sectors¹⁸. This firmly places Kenya as an agricultural country and economy until manufacturing goals can be achieved.

(Figure 4¹⁹ Food Balance Sheet)

Kenyans get most of their calories from cereals like wheat, maize, and rice. This food group makes up as much as over 47% of

Products	DOMESTIC SUPPLY (1000 MT)				
	Prod.	Imports	Exports	Stock changes	Total D.S.
					1000
Grand total					
Vegetable prod.					
Animal prod.					
Cereals (excl. beer)	4678	3289	121	-17	8063
Wheat and products	405	1926	5	178	2148
Barley and products	35	2	22	-54	69
Maize and products	3789	337	9	-99	4215
Rye and products	0	0	4	-4	0
Oats and products	0	2	0	-1	2
Millet and products	153	10	0	53	110
Sorghum and products	315	59	77	41	255
Cereals, Others & Products	0	0	1	-27	26
Rice & Prod (Milled Equivalent)	181	953	2	-106	1238

¹⁶Figure 3 - Kenya National Bureau of Statistics. "Economic Survey 2021," 2021.

<https://www.knbs.or.ke/wp-content/uploads/2021/09/Economic-Survey-2021.pdf>. p. 148

¹⁷ Mutschinski, Kristin, and Neil A. Coles. "The African Water Vision 2025: Its Influence on Water Governance in the Development of Africa's Water Sector, with an Emphasis on Rural Communities in Kenya: A Review." *Water Policy* 23, no. 4 (May 17, 2021). <https://doi.org/10.2166/wp.2021.032>. p. 8

¹⁸ Ministry of Agriculture, Livestock, Fisheries and Cooperatives. "National Agricultural Insurance Policy (NAIP)." Government of the Republic of Kenya, April 2021.

<https://kilimo.go.ke/wp-content/uploads/2021/06/reviewed-draft-National-Agriculture-Insurance-Policy-29-04-2021-with-comments.pdf>. p. ii

¹⁹ Figure 4 - Kenya National Bureau of Statistics. "Economic Survey 2021," p. 149



caloric supply, as seen in Figure 3, making it a priority for food security. Cereals, especially rice and wheat, have high import rates, as shown by Figure 4, which also makes them a major priority in addressing import dependency and trade deficits.

Among the challenges to increasing cereal production are land use competition and water scarcity. Human settlements also compete for land resources that are high potential agricultural, and grain basket areas. These agricultural lands are fragmented as settlements expand and steadily reduce acreage for potentially fruitful agricultural development and hampers opportunities to improve cereal production and nutritional security. Development professionals have suggested robust policy for prohibiting expansion into grain basket areas and such solutions will undoubtedly need to scale up enforcement and education to be successful. Transportation infrastructure is also lacking, hindering the flow of agricultural products and the ability to get them to market and is an area for technical and financial assistance for the foreseeable future²⁰.

Livestock production faces similar challenges and constraints as cereals and other agricultural sectors do. However, two thirds of livestock live in Kenya’s “meat basket” which lies in the ASAL regions where water scarcity is an even greater concern, especially as drought conditions worsen²¹. People in these areas must travel for hours every day to find and gather water for drinking, cleaning, livestock, and agriculture²².



Agriculture Insurance

(Figure 5²³ - Kenyan herder receiving insurance payout)

Agriculture faces a multitude of risks that go well beyond just drought, though recent dry periods have exacerbated the need for such programs. Pests, disease, flooding, hail and fire are also among risks that endanger the agriculture sector and

the other value chain participants²⁴. When these disasters come, it places unbearable pressure on the most vulnerable farmers and makes the most successful farmers

²⁰ Department of Physical Planning. “National Spatial Plan 2015-2045: An Integrated Spatial Plan for Balanced and Sustainable National Development.” VDS Publication, May 7, 2018.

<https://www.knbs.or.ke/wp-content/uploads/2021/09/Economic-Survey-2021.pdf>. p.126

²¹ Ibid, p. 98, 125

²² Ibid, p.83

²³ Figure 5 - IBIL Africa. “Insurance Helps Kenyan Livestock Herders Cope with Drought.” Index-Based Livestock Insurance (IBLI), April 18, 2016.

<https://ibli.ilri.org/2016/04/18/insurance-helps-kenyan-livestock-herders-cope-with-drought/>.

²⁴ Ministry of Agriculture, Livestock, Fisheries and Cooperatives. ‘NAIP.’ p. vi, 3-4



vulnerable. Kenya has suffered 41 major floods and 12 major droughts over the last 53 years, causing extreme damages, including the destruction of 149,600 fishery ponds in 2020 flooding. Climate change increases these disaster risks and has caused an increase in crop diseases, pests, and shortened the average time between droughts from 5-7 years to 2-3 years²⁵.

Although agriculture insurance has existed in Kenya since 1984, and despite the attention it has received, it has been inhibited by governance issues. Until 2021, Kenya lacked clear policy that can clearly define and guide its objectives, and facilitate development of an agricultural insurance industry capable of de-risking the most important, and most uncertain, sector of the economy²⁶. Now that the National Agricultural Insurance Policy has been established, governance in the sector has gained a proper foundation and will enable a more attractive environment for foreign direct investment, official development aid, or private sector cooperation going forward, which can only grow from further developing partnerships and dialogue with the donor community.

In 2020, 5 different agricultural insurance products were available; Multi-peril Crop Insurance, Area Yield Index Insurance, Weather Index Insurance, Index Based Livestock insurance, and Individual Animals' Insurance. These programs have not experienced satisfactory success. Initial costs remain too high among many commercially priced insurance plans and awareness among rural farmers is not yet widespread. Too often farmers must put their incomes into basic needs with little left over. The government has responded with programs that can guarantee minimum returns for farms to lower the risk for impoverished Kenyans²⁷.

Successful agricultural insurance endeavors are often held back by weak early warning systems, unreliable and limited information access, and limited capacity for risk assessment on top of the many risks²⁸. These challenges identify clear domains for donor partnerships that can assist with information technologies.

Trailblazer risk management organizations like the Agriculture & Climate Risk Enterprise (ACRE Africa), in partnership with the World Bank, have had success in implementing a commoditized micro insurance product called Bima Pima²⁹. In 2021, over 70,000 farmers in 15 different counties had been covered with weather index insurance using this service. The initial cost a farmer pays is a bag of seed or fertilizer to purchase a Bima Pima scratch card, as seen in Figure 6, and a \$0.50 charge after

²⁵ Ibid, p. 4, 9-10

²⁶ Ministry of Agriculture, Livestock, Fisheries and Cooperatives. '[NAIP](#).' p. vi, 3-4

²⁷ Ibid, p. 15

²⁸ Ibid, p. 18

²⁹ Republic of Kenya. "Agriculture & Climate Risk Enterprise (ACRE Africa)," n.d. <https://csa-msp.kilimo.go.ke/agriculture-climate-risk-enterprise-acre-africa/>.



activation by phone. Satellite and weather data are used to determine when an insurance payout is due. Weather affected farmers have received payouts before harvesting begins, reducing losses and building trust among farmers who had never had any kind of insurance before. This trust has led to more repeat buyers and rising interest in insurance in the countryside³⁰. Donor cooperation with private sector organizations like ACRE is graciously welcomed by the Kenyan Government and Kenyan citizens.

(Figure 6³¹ - Bima Pima scratch off card)



The recently completed third Medium Term Plan identified agricultural insurance programs as a flagship priority and compelled our government to expand crop insurance to 31 counties while extending livestock insurance to some 500,000 households³². This is intended as an expansion on the second Medium Term Plan which witnessed the creation a Livestock Insurance

Programme for 14,000 households in arid/semi-arid lands³³. The programme has been a pathfinder for agriculture insurance in the East African region.

Recent developments in the agriculture insurance industry and the donor community have high potential. The World Bank and governments of East Africa announced a large project in June 2022; De-risking, inclusion, and value enhancement of pastoral economies in the Horn of Africa (DRIVE)³⁴. The project draws on the lessons and insights from building the Livestock Insurance Program and is financed with \$140M for Kenya³⁵. The project has only just begun but the Kenyan government is proud to have contributed to such a large scale regional project during the dire times of drought. The successes and milestones of the last 5 years prove the Kenyan Government is as capable and willing to participate in insurance projects as it ever has been.

³⁰ The World Bank. “Disruptive Innovations Boost Uptake of Agriculture Insurance Solutions in Kenya.” *The World Bank*, June 15, 2022. <https://www.worldbank.org/en/news/feature/2022/06/15/disruptive-innovations-boost-uptake-of-agriculture-insurance-solutions-in-kenya>.

³¹ Figure 6 - Ibid

³² Republic of Kenya. “Third Medium Term Plan 2018-2022.” Government of the Republic of Kenya, 2018. <https://vision2030.go.ke/publication/third-medium-term-plan-2018-2022/>, p. 46

³³ Ibid, p. 38

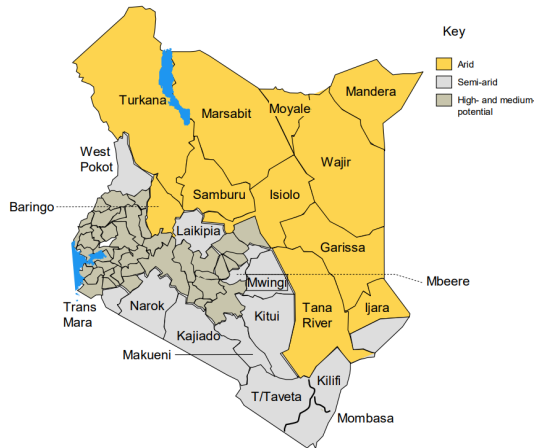
³⁴ The World Bank. “De-Risking, Inclusion and Value Enhancement of Pastoral Economies in the Horn of Africa,” P176517. 2022. <https://projects.worldbank.org/en/projects-operations/project-detail/P176517>.

³⁵ Marindany, Kurgat. “21 ASAL Counties to Share Billions in Planned Livestock Insurance.” *The Star*, February 8, 2023. <https://www.the-star.co.ke/news/2023-02-08-21-asal-counties-to-share-billions-in-planned-livestock-insurance/>.



Water Resource Security

(Figure 7³⁶ Arid & Semi-Arid (ASAL) Regions of Kenya)



Water access is a key aspect of creating food security, especially for the ASAL regions shown in figure 7. While acute challenges have slowed development goals, Kenya is not without its successes. Nearly 3 million acres of mountain ecosystems that make up the 5 major water towers³⁷ have been conserved and managed³⁸. This has been done in line with policies including the Water Towers Coordination and Conservation Policy which acknowledges the Human Rights of all Kenyans to clean and healthy environments, clean water, and a

corresponding duty to maintain and enhance the environment³⁹. The Kenyan government works to fulfill its responsibility to ensure these rights in accordance with the principle of progressive realization⁴⁰ and anticipates increased capacity to realize these rights to a greater extent in the future and as generative donor partnerships are made.

These five water towers are an interconnected and foundational aspect of Kenya’s economy, themselves directly providing 3.5% of Kenya’s GDP from water tower forests, making them instrumental to economic and environmental resilience which is key to achieving food security, lowering hunger, and curating health. 75% of renewable surface water in Kenya cycles through these water towers, as well as providing other resources like firewood, herbal medicine, game, fruits, construction material, honey, dry season grazing areas and more for local communities. The importance of these natural resources cannot be understated by food security and national security concerns. Reductions in water flow lead to less irrigation capacity for agriculture and less hydroelectric and geothermal electric output, which has widespread effects on the

³⁶ Figure 7, The National Treasury & Planning State Department for Planning. “[Kenya Vision 2030: A Globally Competitive and Prosperous Kenya](#).” Figure 3.3.7, p. 39

³⁷ Water towers are geological formations that can be defined as forested, high elevation landscapes from which rivers originate.

³⁸ The National Treasury & Planning State Department for Planning. “[Fourth Medium Term Plan 2023-2027 Concept Note](#).” p.11

³⁹ Ministry of Environment and Forestry. “Water Towers Conservation and Coordination Policy.” Government of the Republic of Kenya, October 2019.

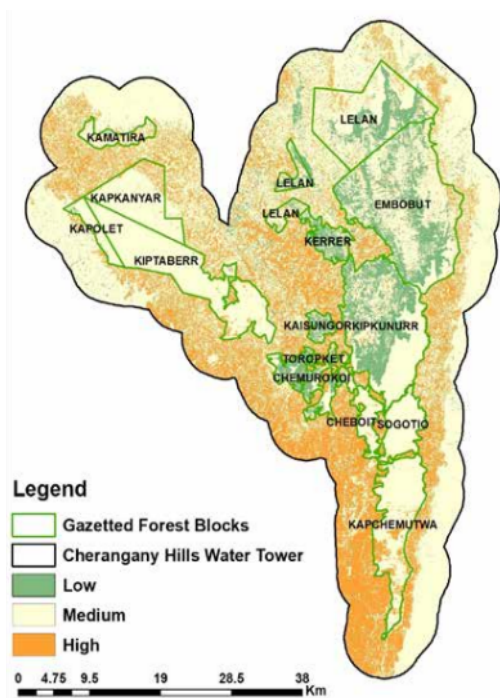
<https://watertowers.go.ke/download/draft-water-towers-coordination-and-conservation-policy/> , p. 9

⁴⁰ Nelson, Paul. *Global Development and Human Rights: The Sustainable Development Goals and Beyond*, 2021.



economy and human wellbeing, inhibiting development goals from being efficiently met in both rural and metropolitan centers⁴¹.

(Figure 8⁴² - Degradation Risk in Cherangany Hills Water Tower area)



The successes of Kenyan conservation efforts still face several challenges. Removing degrading land practices, placing responsibility on polluters, scaling up both enforcement capacities, and information and monitoring services, is necessary for ensuring the Human Rights of all Kenyans, and in improving environmental and economic resilience for the whole country⁴³. Better monitoring of the water towers will provide better accountability to agencies and government departments, reporting abilities, coordination among stakeholders, and better understanding of the interconnectivities of biodiversity, land, and water in the water towers⁴⁴.

Water Towers such as the Cherangany Hills Water Tower deal with an unsatisfactory amount of patrol vehicles and communication networks. This increases degradation risks throughout much of the water tower, as demonstrated by Figure 8, about 71,991 hectares, or 26% is under high risk⁴⁵. These issues intersect with persisting bad land practices, human facilitated forest fires, banditry and gang activity, overgrazing etc., as authorities are unable to gain quick awareness and facilitate a response to both criminal and irresponsible activities in conserved water towers. A lack of greater financial support lies at the crux of these issues as Water Tower management is generally not adequately funded to fully address each issue with the respect and care they need⁴⁶.

⁴¹ Kenya Water Towers Agency. “Technical Report on Integrated Water Towers Monitoring Framework for Kenya,” 2018. https://watertowers.go.ke/wp-content/uploads/2022/04/Integrated-Water-Towers-Monitoring-Framework_Final.pdf. p. 3-4

⁴² Figure 8 - Kenya Water Towers Agency. “Kenya Water Towers Status Report: Cherangany Hills.” Kenya Water Towers Agency, 2020. https://watertowers.go.ke/wp-content/uploads/2021/12/Cherangany-Water-Tower-Status_Final.pdf , Figure 2.19, p. 64

⁴³ Ministry of Environment and Forestry. “Water Towers Conservation and Coordination Policy.”, p. 9

⁴⁴ Kenya Water Towers Agency. “Technical Report on Integrated Water Towers Monitoring Framework for Kenya,” p. 16

⁴⁵ Ibid, p. 64

⁴⁶ Ibid, p.54-55



Many of these challenges can be addressed by scaling up law enforcement and surveillance, and through educating the community to bring greater awareness and sensitivity for Water Tower protection and orient the public towards agroforestry that can synergize with environmental and economic needs. Further, educating the community on alternative livelihoods that can address overdependence on Water Tower resources. These alternative practices can include bee keeping, bamboo farming, and promoting alternative energy sources like micro hydro, solar, and biogas⁴⁷. Kenya's improved conservation governance has made donor partnerships in addressing challenges more possible than ever. Greater financial support for Water Tower conservation would assist in enabling these known solutions, all of which would bring greater protection and prosperity for local communities and Kenya's greater development aspirations. A lack of funds can be addressed through direct donation into the Kenyan budget which would be used to strengthen water tower conservation by addressing these challenges by empowering the professionals of the Water Tower Agency, however such matters can be negotiated.

Infrastructure

(Figure 9⁴⁸ - Siyo-Muruny Water Project Construction Resumes 2021)



Progress on several dams has continued throughout the Third Medium Term Plan, including Siyoi-Muruny dam (69% complete), Thwake dam (55%), Yamo dam (62%), and Karimenu II dam (35%)⁴⁹. Though nearing completion, the Siyoi Muruny Dam began construction in 2015 and was expected to be completed in March

2018 but was set back by lacking enough consistent funding for it to be completed on schedule, suffering several stoppages. When complete, the dam is expected to supply water to some 350,000 people by 2035⁵⁰.

⁴⁷ Ibid, p.57-58

⁴⁸ Figure 9 - Anyango, Anita. "Construction of Siyoi-Muruny Water Project in West Pokot to Resume." *Construction Today*. March 30, 2021.

<https://constructiontoday.co.ke/construction-of-siyoi-muruny-water-project-in-west-pokot-to-resume/>

⁴⁹ The National Treasury & Planning State Department for Planning. "[Fourth Medium Term Plan 2023-2027 Concept Note](#)." p.11

⁵⁰ National Water Harvesting & Storage Authority. "Siyoi Muruny' Dam- West Pokot County." *Water Authority*, n.d. <https://waterauthority.go.ke/siyoi-muruny/>.



These projects have a high degree of synergy with the Big 4 Agenda. The Thwake Milti-Purpose Dam project demonstrates its connection to food and nutritional security by increasing irrigation capacities and facilitating more reliable agricultural production. It also will be affecting healthcare by allowing for larger quantities of treated water to be accessible while also directing water to hospitals. Manufacturing is benefited by increased availability of electricity, and creating a long-term water source for key manufacturing projects like the Kona Technopolis⁵¹. The faster the potentialities of these projects can be realized the sooner the Big 4 Agenda’s goals, and the 2030 Vision can be achieved and more financial support will ensure these projects stay on track.



(Figure 10⁵² - December 2021 Rainfall Forecast)

Much of agriculture in Kenya, and across the African continent, is small-scale that is over reliant on rainfall, which is becoming unreliable, especially in ASAL regions, as demonstrated by Figure 10. Despite this precarity, and consistently poor rainy seasons, the 800-1200mm of rainfall that East Africa receives is enough to meet its needs so long as rainwater can be efficiently harvested, stored, and distributed⁵³.

Building modern, robust irrigation systems are important to facilitating food and nutrition security and capitalizing on the fruits of new dams and other water capturing will aid in creating drought resilience. Irrigation increased from 504,800 to 552,000 acres under the guidance of Medium Term Plan III, which was largely accomplished by the National Irrigation Authority’s National Expanded Irrigation Programme⁵⁴. The programme entails the construction of around 209 irrigation projects across the whole of Kenya, rehabilitation and expansion of existing irrigation schemes, and installing 714 greenhouses that act as models for irrigation efficiency, and conducting studies on the feasibility of more projects⁵⁵. This has resulted in increasing irrigated areas and thus

⁵¹ Thwake Multipurpose Water Development Program. “Big 4 Agenda.” thwakedam.go.ke, n.d. <https://thwakedam.go.ke/big-4-agenda/>.
⁵² Figure 10 - Ministry of Agriculture, Livestock, Fisheries and Cooperatives. “Kenya Crop Conditions Bulletin: November 2021.” *Www.Kilimo.Go.Ke*, November 10, 2021. <https://kilimo.go.ke/wp-content/uploads/2022/01/Kenya-Crop-Conditions-Bulletin-November-2021.pdf>, p. 12
⁵³ Mutschinski, Kristin, and Neil A, Coles. “[The African Water Vision 2025](#)”, p. 4
⁵⁴ The National Treasury & Planning State Department for Planning. “[Fourth Medium Term Plan 2023-2027 Concept Note](#).” p.12
⁵⁵ National Irrigation Authority. “National Expanded Irrigation Programme.” irrigation.go.ke, 2023. <https://irrigation.go.ke/projects/national-expanded-irrigation-programme/>.



increasing rice yields by 66k tonnes and maize by 17k tonnes a year, demonstrating how imperative water infrastructure is for increasing agricultural capacity and developing food and water security⁵⁶. Such projects show Kenya’s capacity to expand irrigation and water security through small projects like greenhouses and larger projects like dams,



both of which can benefit from donor partnerships. Greenhouses are excellent domains for donor investments in education as they often are used in conjunction with meeting the food and water needs of schools and school children, even easing pressure on parents.

(Figure 11⁵⁷ - Thiba dam, north of the Mwea Irrigation Scheme, Kirinyaga County)

Kenya’s flagship irrigation project is called the Mwea Irrigation Development Project (MIDP) which includes the Mwea Irrigation Scheme (MIS) and the recently constructed Thiba dam. The primary goal is to increase agricultural production, and especially rice. The area consists of 26,000 acres of rice production and has contributed to increasing Kenya’s domestic rice productivity by 60%⁵⁸.

MIS is managed through Participatory Irrigation Management which functions with cooperation from both the government and several organizations of farmers that each have understood roles in administrating, expanding or rehabilitating the infrastructure of the project. The benefits of this project are vital to Kenya’s development. By increasing rice production the agriculture sector is contributing more domestic cereals that make up a large portion of caloric intake, and is lowering reliance on cereal imports to keep calories available and affordable. Better access to water contributes to health through both hydration and having the water available to clean and cook. Further, livestock have better access to clean drinking water. More economic activity provides better incomes for farmers and more employment opportunities. Flood risks are mitigated and groundwater recharge is stabilized⁵⁹. The project is wildly successful and is a model for the current dams and infrastructure projects that are still under

⁵⁶ The National Treasury & Planning State Department for Planning. “[Fourth Medium Term Plan 2023-2027 Concept Note](#).” p.12

⁵⁷ Figure 11 - National Irrigation Authority. “Mwea Irrigation Development Project.” irrigation.go.ke, 2023. <https://irrigation.go.ke/projects/mwea-irrigation-development-project/>.

⁵⁸ Ibid

⁵⁹ Ibid



construction or are in need of stable financing that could be gained through donor partnerships.

However, while successes in irrigation have brought improvements, still important are access roads, education, and finance to continue facilitating large scale irrigation going forward and to building up all means of ending cyclical droughts. Good infrastructure such as safe roads are themselves a part of Kenya’s resilience by enabling access to markets and facilitating necessary investments on the countryside that can potentially build resilience while addressing cyclical droughts. This is especially prescient for remote, ASAL regions of the country that lack enough of such infrastructure. Kenya Vision 2030 envisions a fully interconnected country without ‘remote’ regions suffering from lack of infrastructure and thus demands interventions to facilitate development that can end the threat of cyclical drought emergency and relieve climate crisis setbacks⁶⁰.

Kenya has worked with donor organizations to address infrastructural challenges, notably with the African Development Bank. The Kenol-Sagana-Marua Highway Improvement Project is an excellent example of ODA assisting the Kenyan government finance 84 km of dual carriage highway and improving highway safety features while giving proper attention to tertiary aspects of road construction by including training unemployed youth, improving institutional capacity, and even tree planting. These

benefits are greatly desired and important to ensuring these projects leave no one behind and address intersecting development needs.



The Kenol-Sagana-Marua highway was a single-lane bitumen paved road. It is now being upgraded to a two-lane dual carriageway to ease traffic flow.

(Figure 12⁶¹ - Kenol-Sagana-Marua Highway Improvement Project)

⁶⁰ National Drought Management Authority. “Sector Plan for Drought Risk Management and Ending Drought Emergencies,” 2013. <https://www.ndma.go.ke/index.php/resource-center/send/43-ending-drought-emergencies/4271-edem-medium-term-plan-2013-2017>. , p. 6-7

⁶¹ Figure 12 - African Development Bank. “African Development Bank Financing for Kenya Roadway Boosts Local Economy and Regional Integration.” [afdb.org](https://www.afdb.org/fr/news-and-events/african-development-bank-financing-kenya-roadway-boosts-local-economy-and-regional-integration-52116), May 31, 2022. <https://www.afdb.org/fr/news-and-events/african-development-bank-financing-kenya-roadway-boosts-local-economy-and-regional-integration-52116>.



This project is funded largely by the African Bank Group (69%) with funding pledged by the Africa Growing Together Fund (12%), and the Kenyan government (19%)⁶². Assistance like this enables Kenya to facilitate interconnectivity between urban and rural areas that can nurture development and resilience in accordance with our expressed development goals. Even before the scheduled completion of the highway, there are already multiplying benefits for local vendors and new local businesses and industries popping up along completed portions, creating an estimated 17,000 jobs⁶³. Land owners have also seen huge markups on their property values, even tripling land prices along the new highway⁶⁴. These successes demonstrate how valuable road infrastructure can be for the interconnected development needs and goals of the Republic of Kenya. Highway projects can lead to cascading benefits by attracting foreign direct investment and increasing the feasibility of official development aid and donor partnerships, further advancing the prosperity of the Kenyan people.

III. Manufacturing

The Kenyan government's goal of increasing industrial capacity and the manufacturing sector's contribution to GDP is an approach that adheres to the orthodoxy of typical development strategies. Accordingly, the manufacturing pillar of the Big Four Agenda is critical to the long-term economic growth and self-sufficiency of Kenya. Growing this sector is a complex task, and requires a variety of administrative partnerships and financial collaboration. Within the last two decades, manufacturing has contributed less and less to national Gross Domestic Product. Despite relative macroeconomic stability in Kenya, the dwindling of manufacturing's sectoral value added to GDP is harmful because it negatively impacts employment and industrial self-sufficiency. With regards to the Kenyan economy, the International Trade Center, a department of the World Trade Organization, has described manufacturing as being "essential to economic development, because it fosters economic diversification while boosting the productivity of the agricultural sector through value addition."⁶⁵ The ITC report also illustrates Kenya's strong economic fundamentals, with its growing working-age population and narrowed gender gaps in education, Kenya is well-positioned for a push towards

⁶² African Development Bank. "Kenya Kenol-Kagana-Marua Highway Improvement Project." projectsportal.afdb.org, 2019.

<https://projectsportal.afdb.org/dataportal/VProject/show/P-KE-DBO-037#>.

⁶³ African Development Bank. "[African Development Bank Financing for Kenya....](#)"

⁶⁴ Anyango, Anita. "Prices of Land along Kenol-Sagana-Nyeri Road Triple." *Constructiontoday.Co.Ke*, February 21, 2021. <https://constructiontoday.co.ke/prices-of-land-along-kenol-sagana-nyeri-road-triple/>.

⁶⁵ "Promoting SME Competitiveness in Kenya Targeted solutions for inclusive growth," International Trade Center, September 2019, <https://intracen.org/resources/publications/promoting-sme-competitiveness-in-kenya>



enhancement of its manufacturing and a more fair distribution of the wealth to be generated from it.

The Kenyan Government has outlined four specific aspirations for development in manufacturing:⁶⁶

- I. Raising the manufacturing sector's contribution to GDP from 8.5% to 15%
- II. Achieve Top 50 rank in the World Bank's "Ease of Doing Business Global Index"
- III. Create 1,000,000 new jobs in the manufacturing sector
- IV. Achieve a 5x increase in FDI Inflows - raise from US\$672m to US\$3.8b

On these goals and the manufacturing pillar of the Big Four Agenda, the International Monetary Fund (IMF) writes that, "Manufacturing, and industrialization generally, is in these planning frameworks considered key to employment creation, economic development, and realization of the Sustainable Development Goals (SDGs)."⁶⁷ It is crucial to note that Kenya's adherence to the Sustainable Development Goals is being maintained during its push to enhance economic growth. With its partners in development aid projects, the Kenyan government strives to transform the country's economy in a sustainable fashion that will enhance its long-term self-sufficiency. Having outlined the assistance needs and goals of the Republic of Kenya's government, this report will now examine the current development projects working to achieve the manufacturing goals of the Big Four Agenda.

⁶⁶ "The Big Four: Empowering the Nation," Kenyan Government, accessed May 12, 2023, <https://big4.delivery.go.ke/>.

⁶⁷ "Kenya: Selected Issues," International Monetary Fund, December 22, 2021, <https://www.elibrary.imf.org/view/journals/002/2021/276/002.2021.issue-276-en.xml?rskey=563i9r&result=5>.

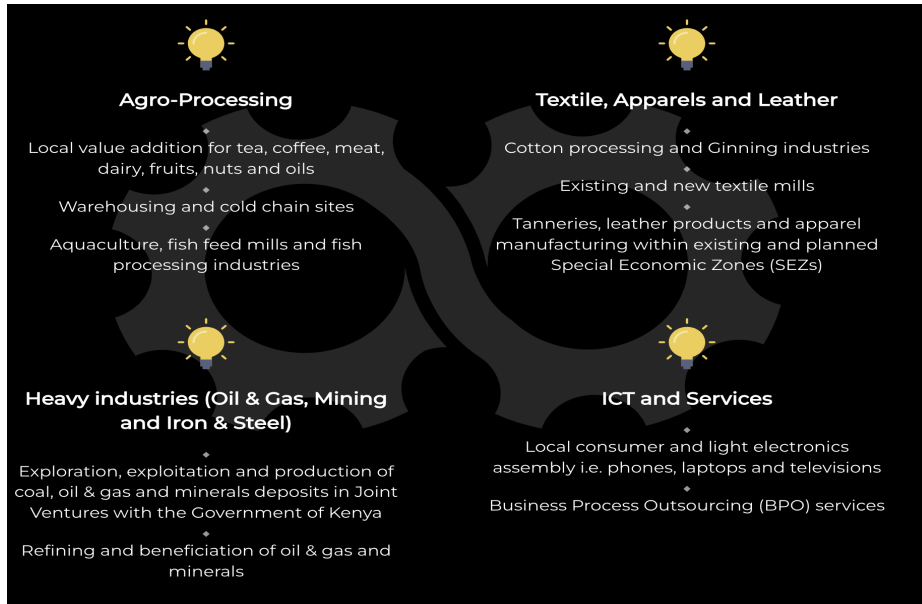


Photo taken from Kenyan Government website, "The Big Four Agenda: Empowering the Nation".

Cross-Cutting Themes

The nature of the Big Four pillar of manufacturing is such that it intersects with other facets of development aid projects ranging from food security to technology. With the manufacturing pillar, the Republic of Kenya is striving for large-scale food production stability through projects aimed at industrializing agriculture, the construction of aquaculture and fishery facilities, and food processing sites. As these projects were designed within the Big Four Agenda and Medium Term III Plan for the period of 2018-2022, we are as of yet unable to quantitatively evaluate the impact of these projects.

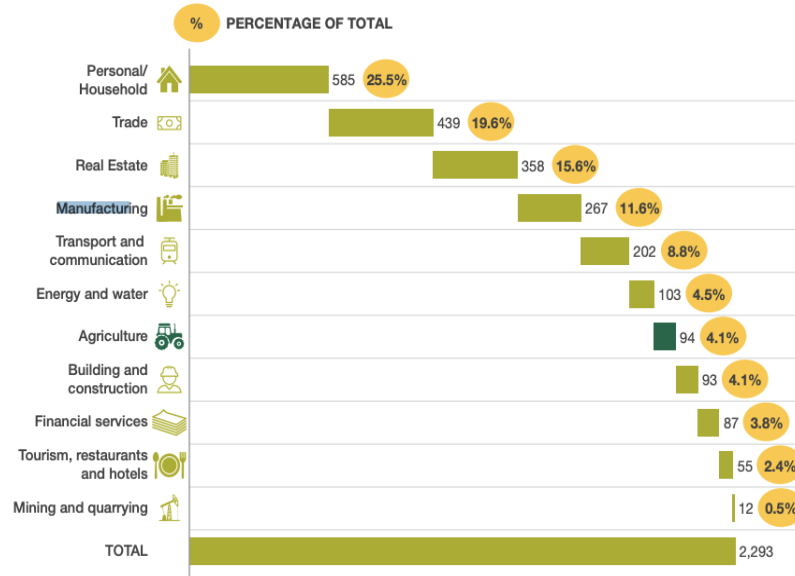
As can be seen in the graph below, manufacturing is one of many components in the overall economic picture of Kenya. Therefore, it is critical that development projects focus on holistic capacity-building to have a ripple-effect across sectors.



FIGURE 3: LENDING TO AGRICULTURE AS OF DEC 2016

Lending to agriculture is smaller than other sectors

Lending to agriculture makes up ~4% of total lending, despite agriculture contributing ~36% of GDP
Sectoral distribution of gross loans, December 2016, KES bn



SOURCE: Central Bank of Kenya

Source: Central Bank

of Kenya in “Agricultural Sector Transformation and Growth Strategy Report.”

The Kenya Industry and Entrepreneurship Project (KIEP)

The KIEP project is a joint development initiative between the government of the Republic of Kenya and the World Bank. The primary objective of the project as outlined by the Kenyan government’s official project website is to “increase innovation and productivity in select private sector firms in Kenya by strengthening the private sector (including startups, SMEs, incubators, accelerators, technology bootcamp providers, etc.) through financial grants and technical assistance.”⁶⁸ This project is also aimed at achieving the goals of the Big Four Agenda, with the project approach envisaged to have a cross-cutting effect with all Big Four sectors.

⁶⁸ “Kenya Industry and Entrepreneurship Project: About KIEP,” Government of Kenya, accessed May 13, 2023, <http://www.kiep.go.ke/aboutkiep/>



Three Components

There are three components to the project. Component 1 details a strengthening of the innovation and entrepreneurship ecosystem. This component offers a twin-track approach to spur industry development and private sector linkages at all levels. As outlined by the KIEP website, these tracks are aimed at (a) supporting ecosystem intermediaries – such as hubs, accelerators, incubators and technology bootcamps, and by (b) establishing greater linkages between local startups and traditional industries, local startups and international networks, and academic institutions and industry, in order to fuel open innovation.⁶⁹ Component 2 is SME Linkages and Upgrading. SMEs, or Small and Medium-Sized Enterprises, are major players in the Kenyan economy as they employ more than 80% of the working population in Kenya.⁷⁰ The aim of this project component is focused on “strengthening the managerial and technical capabilities within Kenyan SMEs, to enable them to better compete for local and international market opportunities.”⁷¹ By accomplishing this aim, the KIEP project would strengthen the foundations of the entrepreneurial backbone of Kenya, leading to greater employment opportunities and revenue generation that would be directly invested into the nation’s economy. Component 3 is smaller and less capacity-enhancing based, as it is aimed at providing resources for project implementation and monitoring activities, including conducting project audits and government trainings to strengthen capacity.⁷²

Project Results and Impact

Since being launched in June 2019, the implementation of the US\$50m KIEP project has been under the direction of Kenya’s Ministry for Industrialization, Trade, and Enterprise Development (MoITD) with a projected end date of December 31, 2024. Thus far, there have been few tangible results of the project, yet this should be taken with several caveats. First, the impact of the COVID-19 pandemic has had a derailing effect on industry and entrepreneurship in Kenya. With 2020 GDP shrinking 5.7% growth to 1.1% and over 4.6 million job losses across all sectors, the KIEP project is facing substantial challenges towards achieving its objectives.⁷³ We must remember, however, that the components of KIEP are primarily focused on the removal of structural impediments to future economic development, not short-term economic growth. Additionally, the pandemic has hindered data-collection and, consequently, is not up to date in evaluating the growth spurred from injection of World Bank capital in

⁶⁹ Ibid.

⁷⁰ International Trade Center, “SME Competitiveness.”

⁷¹ Government of Kenya, “Kenya Industry and Entrepreneurship Project.”

⁷² Ibid.

⁷³ Elijah Mirwoba Siringi, “Analysis of Economic Effect of COVID-19 Pandemic on the Kenyan Economy,” *The African Review* 49, 1 (2021): 38-53.



the form of the KIEP project. Nonetheless, several qualitative accomplishments can be seen in:

<p>Development of a study on best practices</p>	<p>The study entitled, “Applying Best Practices in Government-Led Incubator and Accelerator Support to the Kenyan Ecosystem,” was conducted to formulate the institutional knowledge relevant to maximizing project aid potential</p>
<p>Design and pilot of an incubator diagnostics methodology.</p>	<p>The team designed and customized a diagnostic tool for the assessment of incubators and accelerators. Key learnings were synthesized in a “Best Practices” report. The testing and validation of the diagnostic process leveraging these best practices helped ensure that it would be useful for a diverse set of intermediaries and helped adapt key indicators to the local ecosystem. The results will help enhance the capacity of 30 incubators and accelerators.</p>
<p>Review and adaptation of global... industry-academia platform models to the Kenyan context to ensure a context-appropriate design.</p>	<p>The team assessed various industry-academia platforms (both international and domestic), mapped existing initiatives, and engaged a diverse set of stakeholders to develop a design blueprint. As a result, individual corporates expressed interest in joining such a platform and will be able to expand on their capacity to innovate. Local</p>



	<p>tertiary academic institutions and their students will gain increased access to corporates to enhance their research and development capabilities and professional and technical skills in line with market demand. The results helped address gaps in project preparation and implementation and were key in the design of the request for proposals and in allocating the project budget.</p>
<p>Identification and Consultation with Women who have founded and led SMEs, as well as students and women in technology</p>	<p>Consultations focused on obtaining feedback from potential female beneficiaries, helped inform project design and will contribute to a better understanding of the women in business landscape in Kenya and prepare a foundation for future gender-focused interventions in the country.</p>

Information taken directly from info-Dev MDTF Progress Report. Table created by author.⁷⁴

As can be seen in the table above, the results of the KIEP project will not be felt instantly in Kenya. Rather, it is critical to remember that the true impact of the project will be felt in the years to come, especially amongst women who, through the project, have collaborated with the donor community to create a more inclusive entrepreneurial ecosystem for women. The structural, capacity-based nature of the project will be a key factor in achieving the goals of the manufacturing pillar of the Big Four Agenda because of its steps towards job creation opportunities for women as well as technological advancements to create a more conducive manufacturing network throughout the country.

⁷⁴ “info-Dev Multi-Donor Trust Fund FY20 Annual Progress Report: Mainstreaming Through World Bank Group Operations,” info-Dev, accessed May 16, 2023, <https://thedocs.worldbank.org/en/doc/b8b5ee454c210e1foabb5434c6b17fbc-0350072022/original/info-Dev-Annual-Report-2020.pdf>.



IV. Affordable Healthcare for All

Access to safe and affordable healthcare for all is one of the four main pillars of Kenya's development plan for 2030. Healthcare and physical well-being is one of the fundamental rights for all humans, this is no exception in Kenya. We strive to improve access to healthcare, costs associated with medical care, and increase the number of well-trained physicians and practitioners in various communities within Kenya.

Demographics –

The main causes of mortality in Kenya are HIV/AIDS, chronic and non-communicable disease, and Malaria. With the newly emerging and substantially increasing rise of chronic disease, Kenya is faced with contemporary issues that require contemporary solutions. Cardiovascular disease, cancer, and hypertensive disease are all increasingly prevalent in Kenyan communities; we strive to improve the access to healthcare treatment as well as address the root causes of the increasing rates of chronic disease. Various extenuating factors all contribute to the health and well-being of Kenyans: climate change, social and political infrastructures, food security and sovereignty, and sanitation/access to safe drinking water. All pillars of this development plan are interdependent and can each work to alleviate the main issues that Kenya faces in the wake of modern development.



Development Goals –

For health sector improvement, we have proposed a two pronged approach to provide efficient, high-quality health care. The first prong is creating a devolution of funds and management of health care to the communities and district medical officers.⁷⁵ With this, we will be able to localize the health care funds to allow for more community engagement on local health needs. This will allow for the second prong of our approach: designating the ministry to handle policy and research issues, which shifts the bias of the national health bill from curative to preventive care. This is especially necessary in the wake of chronic disease increase within the Kenyan population. There will be special

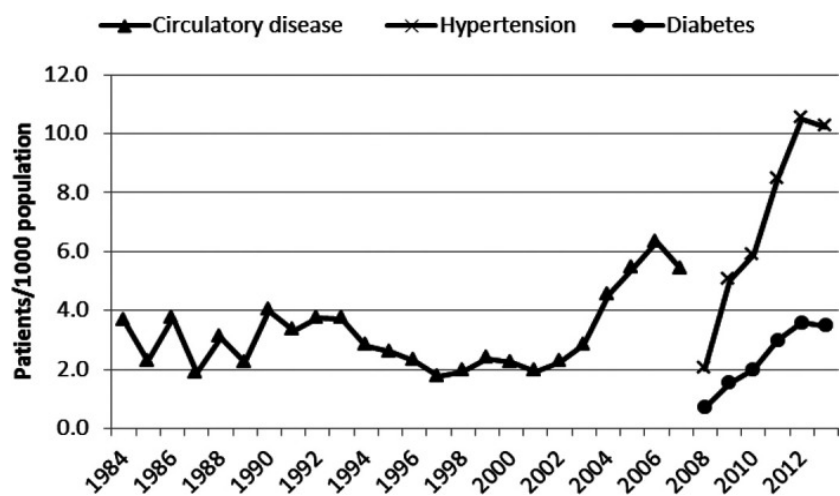
⁷⁵ Kenya Vision 2030 | Kenya Vision 2030. Accessed May 23, 2023. <https://vision2030.go.ke/wp-content/uploads/2018/05/Vision-2030-Popular-Version.pdf>.



attention paid to controlling and lowering the prevalence of HIV/AIDS, Malaria, and Tuberculosis, as well as decreasing the infant mortality rates. These are the most important factors in improving Kenyan health and well-being. The specific strategies that we will implement for these goals to be achieved involve: provision of a robust health infrastructure network as well as improving the quality of health service delivery to the highest standards and promotion of partnerships with the private sector.

Rising Need and Preventative Care –

Although HIV/AIDS is the current number one cause of death in Kenya, chronic disease is rising at an alarming rate. This can be attributed to the rise of physical inactivity,



decrease in access to nutritious foods, and the rise of urbanization.⁷⁶ The current healthcare system in Kenya focuses primarily on curative care: treating the symptoms rather than the root causes of health issues. With our new development plan, we propose to change the foundation of this system and shift the care towards

preventative; this will allow for more effective treatment on chronic and non-communicable diseases. Since cancer, circulatory disease, hypertension, and diabetes are becoming more prevalent in the Kenyan population, there is dire need for lifestyle changes that can help prevent these health disparities. Since medical treatment can only help treat the symptoms of these NCDs, and not cure them, preventative care is essential for lowering the amount of cases seen in Kenya. As seen in figure 1 (Incidents of Circulatory Disease, Hypertension, and Diabetes in Kenya 1984-2013), the recent spikes of these NCDs are becoming an increasingly prominent contemporary issue within Kenyan development. Treatment of HIV/AIDS, the number one killer in Kenya, is also reliant on preventative care. Since there is no cure for HIV, it is imperative that we increase its education and awareness to ensure a decline in cases. Extending resources to local communities to help educate and prevent the spread of HIV/AIDS is one of the development goals that Kenya 2030 strives for.⁷⁷ Preventative care is vital for

⁷⁶ National Center for Biotechnology Information. Accessed May 22, 2023. <https://www.ncbi.nlm.nih.gov/>.

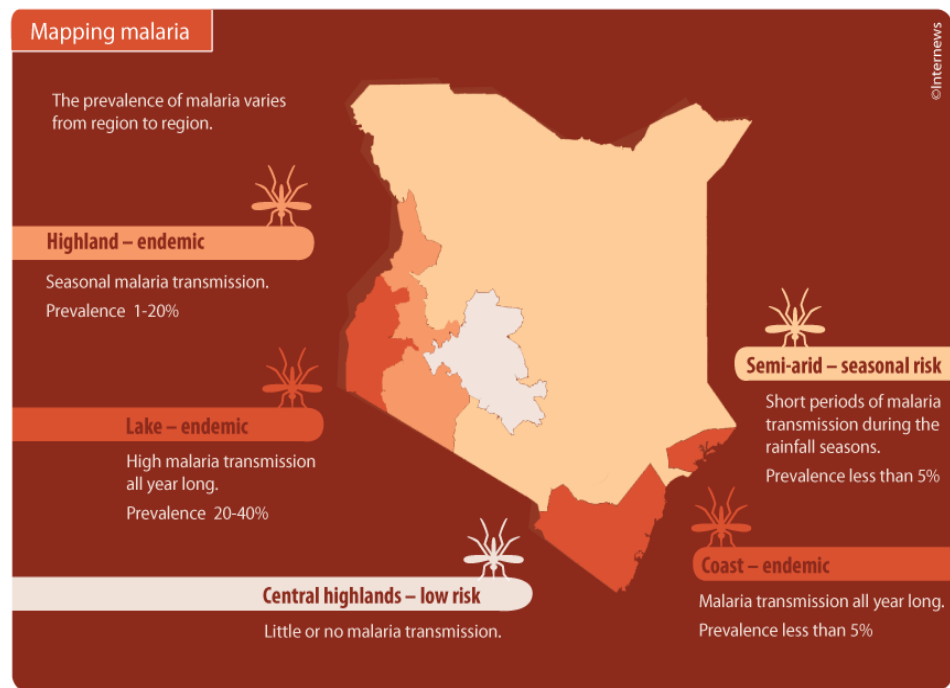
⁷⁷Kenya Vision 2030 | Kenya Vision 2030. Accessed May 23, 2023. <https://vision2030.go.ke/wp-content/uploads/2018/05/Vision-2030-Popular-Version.pdf>.



the future of Kenya’s health. By expanding services that focus around lifestyle change, education, and protection, we will be able to significantly reduce the rates of NCDs and HIV/AIDS.

Malaria and Curative Care –

Malaria is the number one killer of children in Kenya and the second most common communicable disease. With an estimated 10,700 deaths each year and 70% of the population being susceptible to malaria⁷⁸, it is imperative that our development plan reflect the systemic healthcare reform and treatment plan



for future malaria cases. Kenya has five epidemiological zones in which malaria cases vary based on the climate and elevation of the region. The highland endemic brings seasonal malaria transmission with an estimated 1-20% transmission rate. This region’s case prevalence is based on how much precipitation is seen in the region during a given season; if there is higher rainfall, the cases of malaria will also increase. The lake endemic region has consistently high rates of transmission due to the humidity and elevation of the region; this is the most favorable breeding ground for mosquitoes.⁷⁹ The central highlands are at low risk for malaria, this includes the capital city of Nairobi. Residents from these areas typically have significantly less immunity to the malaria virus and, as a result, have higher mortality rates when contracted. In the coastal regions, malaria transmission is present year-round, with moderate rates of infection. The fifth epidemiological zone is the semi-arid region, categorized by spikes of

⁷⁸ “CDC - Malaria - Malaria Worldwide - CDC’s Global Malaria Activities - Kenya.” Centers for Disease Control and Prevention, July 23, 2018.

https://www.cdc.gov/malaria/malaria_worldwide/cdc_activities/kenya.html.

⁷⁹ Budathoki, Nikhil. “The Leading Causes of Death in Kenya.” WorldAtlas, April 25, 2017.

<https://www.worldatlas.com/articles/the-leading-causes-of-death-in-kenya.html>.



transmission following seasons with increased rainfall.⁸⁰ With each region, we propose a specialized care package of surveillance, treatment, and prevention methods that cater specifically for the citizens of each zone. By doing this, we minimize the resources used while maximizing the results of treatment.

Health Sector Flagship Project Proposals –

Revitalizing community healthcare centers to promote proactive preventative care:

This will include expanding education within healthcare clinics about health lifestyle changes to emphasize the importance of healthy eating, exercise, and protection against STDs. We will be providing each healthcare clinic with free male latex condoms to disperse to community members of all genders. We will also be offering a free workshop on how to protect against HIV/AIDS which will be held in local public schools and open to all community members. We will provide free blood testing in community clinics that perform a complete blood count, a metabolic panel, and a lipid panel. With these comprehensive tests, we will be able to identify indicators of high cholesterol (HDL levels), hypothyroidism, white blood cell counts, mean platelet volumes, and protein counts within cells. These results are all determinants of chronic disease such as type 2 Diabetes, cancer, Heart Disease, Stroke, Hypertension, and liver/kidney failure.⁸¹



⁸⁰Malaria endemicity and classification, and the mapping ... - researchgate. Accessed May 23, 2023. https://www.researchgate.net/figure/Malaria-endemicity-and-classification-and-the-mapping-criteria-of-the-Malaria-Atlas_fig2_5464398.

⁸¹ “Interpret Blood Test Results.” Ada. Accessed May 22, 2023. <https://ada.com/blood-test-results/>.



De-link the Ministry of Health from service delivery:

Devolution of health management from the state and national governments to the community and healthcare experts at district, provincial, and national hospitals. By shifting the management of healthcare to more localized levels in community hospitals and clinics, the extent to which doctors can provide specialized and curated care is expanded.⁸² Localized care enables intimate connection with community members that can not only foster elevated trust in healthcare officials by individuals, but also create more specialized care that is structured to provide more accurate care for community members. By providing specialized care for individual communities, it can preserve resources by not using excess personnel or care packages that are not needed for that specific community (i.e. region-specific Malaria care packages).

Create a National Health Insurance Scheme:

In an effort to promote equity in Kenya's healthcare financing, we propose a revitalization and increased funding projects to the National Hospital Insurance Fund (NHIF). The NHIF is a fully comprehensive national healthcare insurance plan that provides free low-level care to all Kenyans, regardless of income. This would include: flu and cold treatment, HIV testing and preventative care, Malaria testing and treatment for all ages, basic maternal care for assistance in the birthing process, and free antibiotics for those with upper respiratory infections and Tuberculosis.⁸³ With these issues being the main causes of death in Kenya, this low level insurance plan can save thousands of lives from treatable and preventable diseases simply by providing communities with free access to these healthcare resources. Treatment for specialized or chronic disease will not be covered under this plan and must be retrieved in a provincial hospital.



⁸² Kenya Vision 2030 | Kenya Vision 2030. Accessed May 23, 2023.

<https://vision2030.go.ke/wp-content/uploads/2018/05/Vision-2030-Popular-Version.pdf>.

⁸³ User, Super. "Health Insurance." National Social Protection Secretariat. Accessed May 22, 2023.

<https://www.socialprotection.or.ke/social-protection-components/health-insurance>.



Scale up Output-Based Approach Systems to Disadvantaged Groups:

Enabling disadvantaged groups such as impoverished community members, orphans, single-parent households, or households with physically or mentally disabled members, access to health care from preferred institutions. We will give free transportation to rural disadvantaged groups to medical institutions (specialized hospitals, clinics, or primary care centers) in an effort to provide increased access to healthcare for high-risk community members.⁸⁴

Expanding Services for Malaria Treatment:

With each of the 5 epidemiological regions in Kenya, we propose five, separate Malaria intervention packages specifically tailored to each zone and its population risks. For the more Malaria pervasive regions in the Lake and coastal endemic zones, we will have increased surveillance and alert systems that notify communities when there is an influx of mosquitoes in local areas. We will also implement Malaria-specific intensive care units that care for patients affected by Malaria with interim oral treatments such as: Artemether-lumefantrine (Coartem®), Atovaquone-proguanil (Malarone™), Quinine, and Mefloquine.⁸⁵ These treatments have been proven effective in treating superficial, early stage Malaria. Because severe cases of Malaria require intensive care and can progress to fatality rapidly, we plan to implement education programs that allow community members to recognize the symptoms of Malaria quickly and seek immediate medical attention. When Malaria is caught in the early stages of progression, it is treatable and curable; however, if the wrong drug is used (some parasites may be resistant to certain drugs), or if the disease is too severe, then fatality is likely. Children under 5 years of age, pregnant women, and those who have HIV/AIDS are at higher risk for infection and mortality from Malaria.⁸⁶ We will also increase testing facilities within the two high-risk epidemiological regions that will provide free testing to all community members for Malaria. For the regions with

⁸⁴ Kenya Vision 2030 | Kenya Vision 2030. Accessed May 23, 2023.
<https://vision2030.go.ke/wp-content/uploads/2018/05/Vision-2030-Popular-Version.pdf>.

⁸⁵“CDC - Malaria - Diagnosis & Treatment (United States) - Treatment (U.S.) - Guidelines for Clinicians.” Centers for Disease Control and Prevention, February 14, 2023.
https://www.cdc.gov/malaria/diagnosis_treatment/clinicians1.html#:~:text=The%20preferred%20anti%20malarial%20for%20interim,not%20adequate%20for%20interim%20treatment.

⁸⁶ “Fact Sheet about Malaria.” World Health Organization. Accessed May 22, 2023.
<https://www.who.int/news-room/fact-sheets/detail/malaria>.



low transmission rates (central highlands, Nairobi) we will increase education to citizens of their abnormally high risks of contracting Malaria when traveling outside of the central highlands region. Since the risk of Malaria transmission is extremely low in these areas, community members have significantly diminished immunity towards the disease, therefore, the risk of mortality is heightened when coming into contact with the parasite. Increasing Malaria precautions for those who plan to travel to Malaria-rich environments is essential for protecting these citizens. We will increase prescription malaria medication for travelers into these high-risk regions, provide free NEMA-approved insect repellent and 0.5% permethrin to community clinics and public schools for clothing and skin protection, and provide free permethrin-treated mosquito face and neck nets for all community members.⁸⁷

HIV/AIDS Treatment and Education Programs:

By revitalizing community healthcare centers to promote preventative care, we will be able to efficiently implement our HIV/AIDS treatment packages and education programs into local communities. We will provide free male latex condoms in all health clinics, hospitals, primary care facilities, and public secondary schools nationwide. We will increase education on HIV/AIDS prevention, its transmission and effect on the immune system, its mortality rates, and consent regarding sexual relations such as vaginal intercourse and oral intercourse. These educational programs will be implemented into intermediate and secondary schools and required for all students to complete as part of the educational curriculum. We will also continue to provide free, completely voluntary, male circumcision for infants in an effort to diminish risk of HIV contraction. Male circumcision can reduce a male's chance of contracting HIV by 50-60% during heterosexual intercourse with an HIV positive female partner.⁸⁸ In 2019, USAID implemented community-run free circumcision clinics in traditionally non-circumcising communities in an effort to reduce contraction of HIV/AIDS.⁸⁹ We propose to continue implementation of these services in local clinics to reduce HIV/AIDS contraction.

⁸⁷ "Malaria." Centers for Disease Control and Prevention. Accessed May 22, 2023. <https://wwwnc.cdc.gov/travel/diseases/malaria>.

⁸⁸ "Male Circumcision for HIV Prevention Fact Sheet." Centers for Disease Control and Prevention, July 12, 2022. <https://www.cdc.gov/nchstp/newsroom/fact-sheets/hiv/male-circumcision-hiv-prevention-factsheet.html#:~:text=Health%20benefits%3A%20Male%20circumcision%20can,data%20of%20three%20clinical%20trials>.

⁸⁹ Rise II Technical Approach Working Paper May 2018 - 2017-2020.usaid.gov. Accessed May 23, 2023. https://2017-2020.usaid.gov/sites/default/files/documents/1860/RISE_II_Technical_Approach_Working_Paper_May_2018_o.pdf.



COVID-19:

In light of the COVID-19 pandemic, the world was faced with immense levels of public health decline, economic stagnation and inflation, and millions of deaths across the globe. Kenya was no exception to these atrocities; however, the mortality rates among Kenyans affected by the Coronavirus are significantly lower than the global average. The national mortality rate for COVID-19 was 1.7% with 5,688 deaths reported.⁹⁰ Over 23,750,431 vaccines have been administered to Kenyan citizens as of May, 2023. With precautions in place and vaccines administered in local clinics and hospitals, COVID-19 is not in the top 10 most common causes of death in Kenya. Because of this, we do not plan on developing or funding new COVID-19 facilities and resources, rather, focus on the more prominent health disparities that are affecting the population's health and well-being.



⁹⁰ “Mortality Analyses.” Johns Hopkins Coronavirus Resource Center. Accessed May 22, 2023. <https://coronavirus.jhu.edu/data/mortality>.



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