Systematic Country Diagnostic

Kenya

WORLD BANK GROUP

Cover image of Nairobi city courtesy of UN-Habitat.

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Acknowledgments

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Acronyms

ASAL	Arid and Semi-Arid Lands
COVID-19	Coronavirus disease 2019
FDI	Foreign direct investment
GBV	Gender-based violence
GDP	Gross domestic product
HCI	Human Capital Index
HDI	Human Development Index
ICT	Information and communications technology
IDA	International Development Agency
IFC	International Finance Corporation
JET	Special Theme on Jobs and Economic Transformation
KES	Kenyan shilling
KIHBS	Kenya Integrated Household Budget Survey
KNBS	Kenyan National Bureau of Statistics
MSME	Micro, small, and medium enterprises
NCCAPII	Second National Climate Change Action Plan
NEDI	North and Northeastern Development Initiative
NER	Net enrollment rates
NSSF	National Social Security Fund
OECD	The Organisation for Economic Co-operation and Development
PPP	Purchasing power parity
SACCO	Savings and Credit Cooperative Society
SCD	Systematic country diagnostic
SDG	Sustainable development goals
SME	Small and medium enterprise
SOE	State-owned enterprise
SRM	Social risk management
STEP	Skills Toward Employment and Productivity
TFP	Total factor productivity
WASH	Water, sanitation, and hygiene

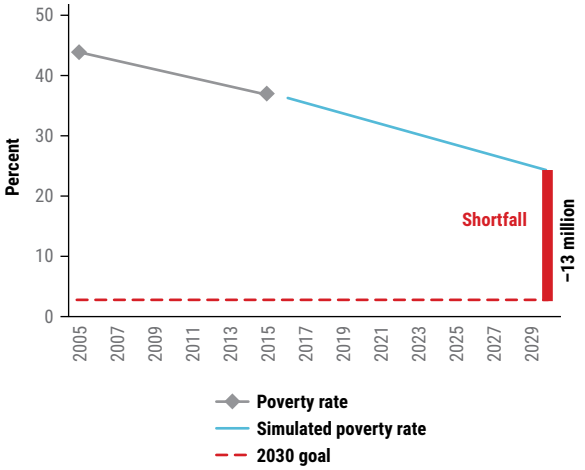
Executive summary

This World Bank Systematic Country Diagnostic (SCD) provides an analytical foundation for identifying country-level actions and investments that would increase growth and boost shared prosperity in Kenya. It aims to be an objective diagnostic that analyzes and prioritizes binding constraints on development, based on government and external sources, as well as consultations with local stakeholders.

The conceptual framework adopted for this SCD is organized around two main strategies: (1) higher aggregate output and productivity growth and (2) greater equity and inclusiveness. Constraints limiting advancement in these two key thematic areas are identified using the latest available data. The document then outlines three main pathways to accelerate the attainment of the World Bank's "twin goals" of ending extreme poverty and promoting shared prosperity. Using filtering criteria and with attention to foundational issues that cut across all sectors, this SCD proposes specific priorities for development initiatives in Kenya.

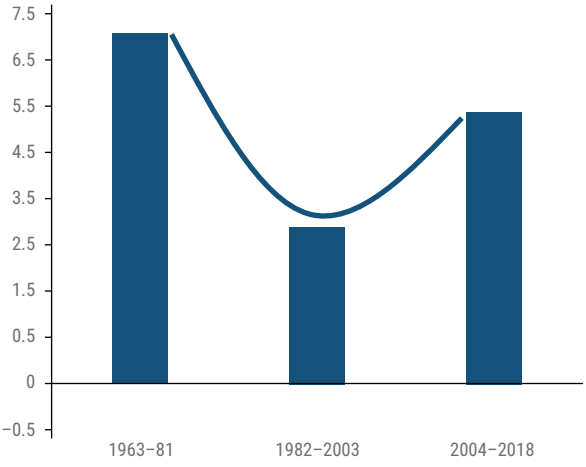
Poverty rates in Kenya have declined over the last decade, but nonetheless remain high by the standards of lower-middle-income countries. The share of the population living below the national poverty line fell from 46.8 percent in

Projected poverty rate with current growth assumptions



Source: Pape and Mejia-Mantilla (2018).

Average GDP growth by period



Source: World Bank.

2005/06 to 36.1 percent in 2015/16 and was projected to decline to 33.5 percent in 2019. Although robust gross domestic product (GDP) growth over the past decade has contributed to the decline in poverty, at the current pace of poverty reduction, this will not be enough to eradicate extreme poverty by 2030. To do so, Kenya's poverty rate would have to fall by an unrealistic 6.1 percentage points each year, while the country's decade average is just 1.6 percentage points per year. If poverty reduction continues at its current pace, the poverty rate will remain around 24 percent in 2030—or higher—given the likely negative effects of COVID-19 on poverty.

Kenya has seen a return to strong growth rates, but the increased public spending that has helped drive that expansion will not be sustainable over the long term.

The Kenyan economy has emerged from an economic slump and returned to robust, resilient growth over the past decade and a half. Kenya's post-independence economic growth is characterized by three broadly distinct phases: buoyant growth in the post-independence period, an economic slump in the 1980s and 1990s, and then a robust rebound. Since 2004, GDP growth has rebounded to an average of 5.4 percent and remained resilient during and in the aftermath of the global financial crisis. Despite performing better than the average for Sub-Saharan Africa, Kenya's growth remains weaker than a number of its regional and structural peers. The ongoing COVID-19 pandemic poses a significant threat to near-term growth in Kenya because of the contraction of domestic demand, a decline in exports, the disruption of global supply chains, and a drop in tourism revenue.

The recent recovery in growth has been broad based but driven primarily by the services sector on the supply side and by an increase in domestic demand; the debt-driven, public investment–led growth model seems to have reached its limit. The services sector accounted for some three-quarters of the increase in GDP growth, while the agricultural sector contributed the least. The increase in private consumption and investment were the main drivers of the increase in domestic demand. Increased government spending has also been a driver of growth in the post-2012 era. Overall, total expenditure by the national government increased to an average of 26.6 percent of GDP between 2013/14 and 2017/18, compared with an average of 23.4 percent in the preceding four years. The public sector is however unlikely to remain a driver of growth, given a narrowing of the fiscal space due to an underperformance in revenues.

Factor accumulation has been the greatest driver of the recent pickup in growth, whereas productivity growth significantly lags that of comparator countries. The bulk of the increase in GDP growth in recent decades has come from capital deepening and labor force growth. Although the contribution of productivity to GDP growth in Kenya has picked up from the period of economic slump, it still lags significantly behind that of comparator countries. This suggests there is room for greater growth by addressing the challenges to low productivity in the Kenyan economy.

The pace of structural reforms has increased since the mid-2000s, and these have helped boost productivity growth, but there remains further room for improvement. The single most important determinant of the changes in per capita GDP growth in Kenya over the long term has been the pace of structural reforms, meaning changes in government policies, practices, and institutions that can help create an enabling environment for growth and job creation. In the 1980s, state controls were maintained in several important markets, including a pegged exchange rate, interest rate controls, price controls, and the licensing of foreign exchange transactions. A lack of structural reforms contributed to the economic slump that occurred from 1981 to 2003. Successive national governments were able to accelerate the pace of structural reforms after a political shift in 2003. These reforms included restoring macro stability, strengthening governance institutions, and expanding physical infrastructure. From a very low contribution in the 1980s and 1990s, the contribution of structural reforms to growth quadrupled in the 2000s. Notwithstanding this progress, the contribution of structural reforms to per capita GDP growth in Kenya still lags that of its aspirational peers.

Kenya is still facing a range of macroeconomic and microeconomic constraints that are preventing productivity growth.

Sustained increases in productivity are critical to achievement of the twin goals. The recent pickup in productivity growth has been predominantly driven by improvements in productivity within firms and farms, with the contribution from dynamic reallocation (entry of new firms and rearranging the factors of production) being minimal. Productivity growth is largely coming from incumbents within the same sector, with little room for new players, a phenomenon that could reflect challenges due to barriers to entry.

Narrowing of the fiscal space poses the single biggest threat to macroeconomic stability. Debt-to-GDP ratios surged from 39 percent of GDP in 2013 to 62 percent of GDP in 2019, with the composition of that debt shifting toward more expensive commercial sources. The expansionary fiscal stance, coupled with the interest rate cap, is crowding out private investment and curtailing productivity growth. Unlike the solid contribution to growth of the public sector, the contribution from private investment has been negative in recent years, with the four-year moving average declining from 1.3 percent of GDP in 2013 to negative 0.7 percent in 2017. It is expected that the fiscal measures instituted

to mitigate the economic effects of the COVID-19 pandemic will widen the deficit by some 1.6 percent of GDP, further delaying the urgently needed fiscal consolidation.

There is a need to improve the business regulatory environment, with investors complaining that it is complex, costly, and unpredictable. Kenya has attracted only an average of 1.2 percent of GDP in foreign direct investment (FDI) flows in recent years, whereas other non-resource-rich countries such as Ethiopia and Rwanda have attracted FDI flows in excess of 3.3 percent of GDP. In part, this reflects Kenya's numerous restrictive regulations that serve as barriers to entry and hinder private investment. There are competition restrictions in many sectors, with examples including government intervention in grain markets, a lack of a transparent regulatory framework for procompetitive spectrum allocation in the telecommunications market, and restrictions on foreign equity participation in insurance markets.

The large presence of legacy state-owned enterprises (SOEs) represents a major constraint on productivity growth in Kenya. SOEs are the primary vehicle for overseeing, delivering, and implementing large-scale projects and services, but their governance and administrative arrangements are often inefficient, and oversight mechanisms are lacking. Direct competition from SOEs and links between competing firms through partial government shareholding are crowding out the private sector. SOEs also generate a significant burden on fiscal accounts, running deficits particularly in agriculture, health, and communications.

Corruption is a significant problem for businesses, hindering productivity and deterring potentially more productive new firms from entering the market. The recent World Bank Enterprise Survey shows that, in almost every dimension of corruption involving business interactions with public officials, Kenya ranks worse than the average. Prominent government officials often have large private sector interests and influence public procurement and government priorities through the use of proxy companies. Government domination of certain subsectors has crowded out the private sector and made access to inputs erratic, overly bureaucratic, and vulnerable to rent seeking. Ongoing efforts to combat corruption are commendable and should improve the operating environment.

Kenya's micro, small, and medium enterprises (MSMEs) are constrained by challenges stemming from access to finance and also from the business ecosystem. MSMEs were hit the hardest by the interest rate cap introduced in 2016, as commercial banks no longer able to implement risk-based pricing shifted their lending away from riskier borrower segments. Some 71.9 percent of MSME capital is the resources of the owners, with only 5.6 percent coming from banks. Given the criticality of MSMEs as the main employer (80 percent of the workforce) and a significant contributor to GDP (33.8 percent), it is important that MSMEs are supported in gaining better access to finance. Access to markets, firm capabilities, technology adoption, and innovation absorption also continue to be major challenges for MSMEs.

Inadequate investment in human capital is limiting Kenya's productivity growth. Health indicators have improved significantly in Kenya in recent years. Mortality among children under the age of five declined from 114.6 deaths per 1,000 live births in 2003 to 52 per 1,000 in 2014. In parallel, the child stunting rate has dropped to one of the lowest levels in the region, falling from 35.6 percent in 2003 to less than 26 percent in 2014. The expansion of low-cost, highly effective technologies such as mosquito nets, along with a decline in fertility rates, has improved health outcomes. Despite these important gains, Kenya is still struggling to improve key health indicators. The maternal mortality rate, for example, remains very high at 362 per 100,000 live births. Although Kenya's education results are relatively good on Human Capital Index (HCI) measurements, learning outcomes are low in basic education and wide regional disparities remain. Kenyan children are expected to complete 10.7 years of schooling (compared with 7.8 for Tanzania and 6.6 for Rwanda), but when adjusted for learning outcomes, this amounts to only 7.8 years of schooling. Almost 60 percent of youth aged 19 to 20 have an upper secondary education score below the basic literacy level, compared with 40 percent in Ghana and 3 percent in Vietnam. This represents a huge challenge for productivity as more than 1 million youth enter the workforce every year and need support to build their human capital while at work.

The inadequacy of road networks, electricity generation, and other forms of physical capital are major constraints on productivity growth. Kenya has chronically underinvested in infrastructure. Low-quality road networks raise logistical and transaction costs, limiting market access and the mobility of factors of production. Despite significant improvements in recent years, only 44 percent of the road network is in good or fair condition. Although grid electricity is fundamental for boosting the productivity of firms, access to grid electricity is still only 53.5 percent nationally. Kenya's information and communications technology (ICT) sector is one of the most dynamic in Sub-Saharan Africa, with 70.5 percent of households having mobile money subscriptions, one of the highest rates globally. Access to broadband Internet, however, remains limited at only 46 percent, and a digital divide persists in which broadband has not yet reached most parts of rural Kenya.

The sustainable management of renewable natural capital resources will be critical for Kenya's long-term growth. Although land is one of Kenya's most important natural capital assets,

restrictive laws, bureaucratic inefficiencies, political interference, and insecure land tenure arrangements impede land market efficiency. Appropriate development and management of water resources will also be critical, as Kenya faces major challenges in both physical water scarcity and lack of appropriate infrastructure. Kenya has annual renewable freshwater resources per capita per year of only 526 m^3, well below the accepted "water poor" threshold of 1,000 m^3. Irrigation infrastructure is particularly lacking, with 98 percent of Kenya's arable land being rainfed and only 13 percent of the identified irrigation potential having been developed.

Climate change is expected to have a considerable negative impact on livelihoods and economic growth. Changes in temperature and rainfall patterns have been observed, and extreme weather events have become more frequent. Each flood event affects 68,000 people on average, and 3.4 million Kenyans were classed as food insecure in 2017 due to ongoing droughts. The economic effects of climate change will intensify in the coming decades, reducing crop and livestock production, as well as that of coastal fisheries, lowering aggregate growth and productivity. Recent modeling for Kenya places the reduction in GDP growth at approximately 2.3 percentage points under current warming conditions (at the upper end of the estimates), doubling to 4.7 percent at 2°C warming. Climate will be a powerful economic binding constraint, particularly in rural areas where economic activity depends on climate-sensitive sectors.

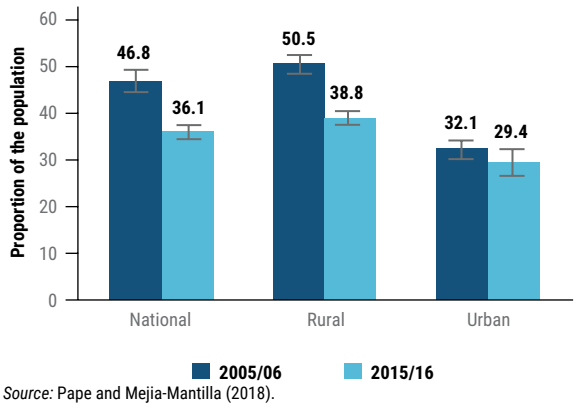
Geographic and socioeconomic exclusion have driven high rates of both monetary and nonmonetary inequality.

Poverty rates in Kenya declined over the last decade, and the prosperity of the bottom 40 percent of the consumption distribution has increased. The poverty rate with respect to the international poverty line also declined, falling from 43.7 percent in 2005/06 to 36.8 percent in 2015/16 and 33.4 percent in 2019. This is among the lowest level in the East African Community, but is high by the standards of lower-middle-income countries. Consumption grew significantly among households in the bottom 40 percent, increasing 2.86 percent per year from 2005/06 to 2015/16, with especially strong gains among rural households. Kenya has been more successful in boosting shared prosperity than its regional peers. Pro-poor growth has also caused income inequality to decline, with the Gini index falling from 0.45 in 2005/06 to 0.39 in 2015/16, although the COVID-19 pandemic might have reversed this positive trend.

The effects of the COVID-19 pandemic may attenuate the decline in inequality or even lead to increases in inequality. Public hospitals are more likely to face shortages of beds and equipment, and the poor will be most affected. The prolonged closure of schools can also have long-term impacts on human capital, especially for poor households and those that rely on school feeding programs. The pandemic will also have serious distributional effects, as international and domestic mobility restrictions such as lockdowns are likely to reduce aggregate demand and employment. A 30 percent reduction in monthly wage income for individuals in vulnerable sectors would result in a projected poverty headcount of 43 percent, an increase of more than 6 percentage points. The effect will be larger for urban households, which are more likely to rely on wages and earnings from self-employment. The economic contraction in other countries will also affect Kenya by reducing remittances. The impact of COVID-19, through the channels of illness, changes in wages, and higher food prices, may increase the projected poverty headcount of certain locations within Kenya by as much as 16 percentage points.

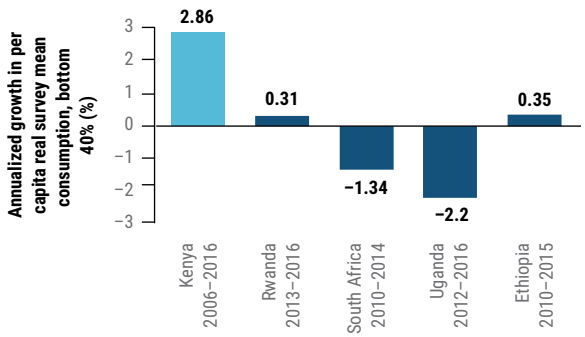
Despite recent progress in poverty reduction, poor and vulnerable households remain constrained by demographic characteristics, low levels of human capital, and limited access to basic services. Poor households are less likely to have access to safe drinking water (65.6 percent versus 80.4 percent in non-poor households) and improved sanitation

The poverty headcount rate measured at the national poverty line



Source: Pape and Mejia-Mantilla (2018).

Shared prosperity, as measured by changes in real per capita consumption among the bottom 40 percent



Source: Pape and Mejia-Mantilla (2018).

(47.8 percent versus 72.2 percent), as well as other basic services. More than half of Kenya's population is vulnerable to falling into poverty in the near term. The inability of poor households to cope with adverse shocks has severe long-term implications, because reduced spending on food, education, and health can dramatically slow human capital accumulation.

The Kenyan government has expanded its social protection programs, but their coverage and scale remain limited. The authorities increased spending on social protection to approximately 0.27 percent of GDP in 2015, still well below the average of 1.6 percent for lower-middle-income countries. Although Kenya's social protection schemes are generally well targeted, they are small and their geographical coverage is limited. The COVID-19 pandemic has underscored the need for a more comprehensive social registry and more efficient ways to quickly reach vulnerable groups.

Poverty rates vary widely by region and are most severe in historically underserved counties. The poverty rate in the North and Northeastern Development Initiative (NEDI) counties is 68 percent, almost twice the national average of 36.1 percent. The gap between NEDI and non-NEDI counties is even more striking when considering rates of extreme poverty, at 31.8 percent and 6.1 percent, respectively. These disparities have origins in the colonial administration, which developed only areas suited to the settler economy, and were exacerbated by the policies of post-independence governments.

Kenya faces considerable inequality of jobs between regions and population groups. The overall employment rate in Kenya has risen substantially, from 60 percent of the working age population in 2005 to 76 percent in 2015. Nonetheless, many challenges persist in the labor market, including a growing job deficit affecting at-risk groups, a gap in job creation between the formal and informal sectors, and the low productivity and quality of jobs. In Kenya, only 6 percent of total employment is in the formal nonagricultural sector, versus 49 percent in informal nonagricultural employment. The remaining 45 percent of workers are employed in agriculture, a low-productivity sector with high rates of underemployment. Government expenditures on job programs have gradually increased since 2014 but still represent only a very small share of GDP (0.1 percent).

Kenya is urbanizing, and inequality in urban areas is increasing. In 2005, 21.7 percent of the population lived in cities, and this number is projected to reach 30.3 percent by 2025. In Nairobi, poverty is highly concentrated in unplanned settlements, with nearly 33 percent of slum residents being poor, compared to just 9 percent of those living outside slum areas. Although the national poverty rate continues to fall, poverty rates in urban areas have stagnated. Over the past decade, the urban poor population has increased both in absolute terms and as a share of the total poor population.

Gains in monetary poverty reduction were accompanied by progress in several dimensions of nonmonetary poverty. Kenya's Human Development Index, which aggregates education, income, and life-expectancy indicators, rose from 0.45 in 2002 to 0.58 in 2018. This score is relatively strong given the country's considerable poverty headcount and places Kenya ahead of all other countries in the East African Community. Kenya nonetheless continues to suffer from pronounced inequality of opportunity, with challenges in several areas of human development and limited access to essential services. The rural population in Kenya faces considerable spatial exclusion with respect to gains from development, due to a combination of geographic isolation, a lack of resources, and sociodemographic factors.

There are considerable inequities between geographical areas and socioeconomic groups in health care, education, and access to water and sanitation services. For example, a child born in the primarily rural Nyanza region is almost twice as likely to die before the age of 5 as a child born in the Central region (82 deaths per 1,000 live births versus 42). High costs limit access to health care for the poor and perpetuate cycles of poverty. More than one-quarter of total health care expenditures comes in the form of out-of-pocket payments by households, and 82 percent of women and 79 percent of men do not have any health insurance. Primary NERs (Net Enrollment Rates) vary widely, ranging from 42 percent in Garissa County to 96.8 percent in Nyeri County. NER gaps between income quintiles are also significant, and the net secondary enrollment rate among households in the top income quintile (56 percent) is almost twice the rate of the bottom quintile. Economically disadvantaged counties also lack resources and consequently have worse learning outcomes. In urban areas, 86.7 percent of households have access to an improved water source, whereas only 61.8 percent of rural households do. This gap is even larger for sanitation services, with 50.8 percent of rural households using unimproved sanitation, compared with 13.2 percent in urban areas. These indicators are weaker than would be expected given Kenya's status as a lower-middle-income country.

Poverty disproportionately affects Kenyan women who have less access to economic opportunities. Women are less likely to use mobile Internet (with a gender gap of 39 percent) and less likely to use the mobile phone-based money transfer service M-Pesa (16 percent gender gap), which is a significant constraint on women's economic opportunities and productivity. Social factors stemming from traditional gender roles and attitudes about the advancement of women in the public sphere limit the participation of women in politics and community leadership. Large gender gaps are evident

in business profits, driven primarily by sectoral segregation. Early childbearing is also a significant challenge, with implications for maternal mortality and complications during childbirth. Nearly one-quarter of women in Kenya give birth by age 18 and nearly half by age 20. The prevalence of gender-based violence also presents a significant and persistent development challenge.

Creating opportunities for youth will be critical for ensuring shared prosperity. Approximately half of Kenya's population is younger than 18, and 9 million individuals are expected to enter the labor force between 2015 and 2025. To absorb this "youth bulge," Kenya needs to create an average of 900,000 jobs every year, but it has consistently failed to keep pace. Youth unemployment has decreased significantly over the past 10 years but still remains much higher than for the total workforce. For instance, in Nairobi, 18 percent of youth are unemployed, compared with 10 percent of the total working age population. Youth are also more likely to work in sectors and occupations with lower productivity and lower earnings. In urban Kenya, almost 80 percent of employed people aged 15 to 24 have an informal job, versus 70 percent for the rest of the population.

This Systematic Country Diagnostic identifies three critical pathways that can help Kenya reduce poverty and boost shared prosperity.

The analysis in this SCD points to three critical pathways: (1) boosting productivity and job creation, (2) reducing inequality of opportunities through advancing human capital, and (3) improving governance for service delivery. No single pathway targets a specific constraint or category of constraints, but each one instead addresses a range of binding conditions and sustainability concerns. Within each of the three pathways can be identified specific high-impact interventions in both the public and the private spheres that will help Kenya move toward achieving the twin goals.

The first identified pathway is Boosting Productivity and Job Creation.

Productivity and structural reforms are needed across a range of sectors to encourage the dynamism of the private sector, which is fundamental to economic growth and job creation. The government needs to address core structural obstacles to economic growth such as infrastructure deficiencies, skill shortages, and supply chain inefficiencies, as well as cross-cutting constraints such as the lack of an enabling environment, insufficient competition, and informality. Greater productivity in private sector jobs will also be essential for economic growth and poverty alleviation. To guide the discussion on investment and job creation, the framework of the Special Theme on Jobs and Economic Transformation (JET) of the 19th International Development Agency replenishment is used as a sub-framework within the SCD analytical methodology. The JET framework rests on two pillars: the need to catalyze private investment and the creation of more productive workers and entrepreneurs.

Macroeconomic stability is essential for creating an enabling environment to boost private investment. As noted above, the biggest threat is from a burgeoning fiscal challenge. Fiscal consolidation is important not only because it safeguards macro stability, but also more importantly because it will crowd in the private sector. Measures to support fiscal consolidation with respect to recurrent spending could include capping growth in allowances and benefits, cleaning up public sector payrolls, and accelerating public procurement reforms. On development spending, Kenya should rationalize the inventory of the 1,600 ongoing government projects and, for new projects, establish a system of commitment control and a readiness checklist. Strategies for mobilizing domestic revenue could include rationalizing corporate income taxes and value-added tax (VAT) exemptions. Debt-related measures could include maximizing the use of concessional resources by increasing the absorption rate of donor-financed projects and replacing more expensive debt with cheaper options. Because of necessary government spending during the COVID-19 pandemic, there is a renewed urgency to reverse the expansionary fiscal stance over the medium term soon after businesses return to normal operation. A stronger focus on the private sector–government nexus would help create opportunities for growth while reducing pressure on Kenya's constrained fiscal space.

Lack of access to finance is one of the major constraints on growth in the MSME sector—a crucial engine of growth for the Kenyan economy. Addressing some of the specific constraints on lending to MSMEs would increase liquidity and support financial innovation. Interventions could include establishing a national credit guarantee scheme, universal adoption of credit scores in credit pricing, and leveraging financial technology and alternative data sources to increase access to markets and finance for MSMEs. Youth could benefit from greater access to finance if they were part of integrated interventions that address other constraints that youth face in being productive and creating jobs. Very low cost and possibly free financing in the form of business grants should be considered for youth, in combination with skills interventions that cover socio-emotional, technical, and business management skills. Furthermore, capacity building and liquidity support could be provided to Savings and Credit Cooperative Societies (SACCOs) to help them provide products suitable for MSMEs and to lend based on data and cash flow rather than deposits.

Regulatory restrictions and distortions in the economy should be reduced as much as possible to unleash competitive forces. The

removal of regulatory barriers and government interventions that restrict market entry and competition would help generate business opportunities, increase competition, lower prices, and create jobs. In parallel, removing protective trade barriers and cracking down on anticompetitive practices would allow for greater competition in the economy, which would in turn help lower prices, boost innovation, and improve quality. Finally, it will be important to limit government intervention and the role of SOEs to situations in which the private sector is unable to operate.

The fight against corruption will need to be intensified to reduce business transaction costs and improve service delivery by the public sector to the private sector. Although the current administration has recently stepped up its anticorruption efforts, more needs to be done, and governance institutions will need to be reinforced. Transparency in public procurement will need to be improved, and corporate governance should be strengthened in the private sector. Adopting an approach of confronting corruption and promoting performance and accountability (over punitive actions such as arrest and prosecution of individuals) would help ensure sustainability.

Land market distortions will need to be remedied, because land is an important factor of production and one of the most important assets of the poor. Better functioning land markets can help increase access to credit for households and MSMEs. To address the harms of unplanned land use, the government should accelerate the digitization of land records, complete the National Spatial Plan (2015–2045), and promote the commercial use of idle public land. Urban population growth increases pressure on existing urban infrastructure, including traffic congestion, water shortages, and high housing costs, which if not addressed can curtail potential productivity benefits from urbanization. Urban and rural planning offices should be fully established at the county level, and county executives' participatory planning skills should be improved through training.

Kenya's significant infrastructure challenges need to be addressed. Measures to improve transportation infrastructure could include prioritizing transportation networks that directly support productive activity and addressing gaps in the legal framework for transportation infrastructure development. Infrastructure planning needs to be improved significantly, including developing a comprehensive urban traffic and transportation strategy, providing mobility programs in major towns, and addressing bottlenecks to effective functioning of the Public-Private Partnership (PPP) Act. At the same time, there is a critical need to increase water development and management infrastructure by boosting investment in strategic water storage, productive watershed management, inter-basin transfers, water delivery works, farmer-led irrigation schemes, and water conservation and adaptation infrastructure. Such investments are required to meet the fast-growing demand for water in urban centers and in marginalized regions, such as the northern and northeastern areas, to help achieve water and food security.

To increase worker capabilities and foster creation of more productive jobs, integrated interventions are needed to address supply- and demand-side constraints on employment. Youth unemployment should be addressed with interventions to increase their productivity and help them find jobs, such as initiatives that build marketable skills and provide specific support for starting businesses. Additional measures can target young women to empower them and provide support for their labor force participation while they also transition into family life. Productivity gains also accrue as workers move into more productive sectors, firms, and occupations. Better labor market information systems would help move trained workers into growing sectors and occupations. Digital technologies can also be leveraged to boost productivity. With 10.8 percent average annual growth since 2016, the ICT sector has been an important source of economic dynamism and job creation, with spillover benefits for other sectors. Adoption of technology is having a more positive effect on job creation for unskilled workers in low-income countries than in most high-income countries, and equipping Kenya's workforce with digital skills should similarly open doors to new forms of employment. Regarding firm capabilities, the government has launched interventions that support increases in productivity in micro and small enterprises.

Given underperformance in trade, regional integration holds great potential to boost productivity and growth in Kenya. However, this will require improving subregional connectivity (physical and digital) and addressing nontariff barriers. Trade liberalization between countries should be deepened beyond merchandise to cover services, investment rules, and public procurement. Specific measures to boost trade could include improving regional trade corridors by investing in road and rail links and developing the country's standards and quality infrastructure. Kenya could seek to boost foreign direct investment in its special economic and export processing zones by implementing the recently approved Kenya Investment Policy. Leveraging the digital economy could also spur regional integration. Implementing a single digital market in East Africa would generate a $1.0 billion to $2.6 billion increase in GDP and between 1.6 million and 4.5 million new jobs across the region.

Increasing agricultural productivity and output could provide a path out of poverty for many rural households. Marginal yields have improved little over the last 10 years for staple crops such as maize and commercial crops such as coffee. As a result, agricultural productivity has contributed little to poverty reduction in rural Kenya, in

stark contrast to the experience of other countries in the region. Specific measures to boost productivity in the sector could include reforming the fertilizer subsidy program, investing in irrigation infrastructure, boosting livestock productivity, improving land tenure security, and promoting access to agricultural land for women. Commercial opportunities also need to be enhanced along agricultural value chains. Kenyan farmers face major challenges in marketing produce, and the potential for adding value to products such as tea, coffee, pyrethrum, milk, beef, fruits, and vegetables remains largely untapped. Actions could include removing restrictions on private investment participation in core agricultural value chains, helping farmers gain relevant certifications, leveraging cooperatives to help organize farmers to benefit from economies of scale, and operationalizing the Warehouse Receipt System and the National Commodity Exchange.

Support for sustainable development of the blue economy and wildlife conservation would contribute significantly to job creation and environmental sustainability. Growth of the blue economy will require integrating economic development with environmental management, fiscal policy, and social goals. Given the adverse effects of marine litter on fisheries, tourism, and biodiversity, sustainable waste management will also be fundamental for effective delivery of the government's commitments under the blue economy framework. According to the National Wildlife Strategy (2018–2030), nature-based tourism contributes more than 10 percent of GDP and 9.3 percent of total employment, but in the past three decades, the country has lost more than 60 percent of its wildlife. The National Wildlife Strategy identifies priority deliverables, including the maintenance and improvement of habitats and the enhancement of species conservation and management.

The second identified pathway is Reducing Inequality of Opportunities through Advancing Human Capital.

Investing in the development of human capital will be an essential pathway for achieving the twin goals. Disparities in rates of human capital accumulation can dramatically widen welfare gaps between socioeconomic groups over the medium and long term. Investing in the development of human capital means investing in people through better health care, improved nutrition, quality education, skills training, and the creation of productive jobs. Given that constraints on the accumulation of human capital are stronger in rural Kenya than in urban areas, policy initiatives should target those regions. Similarly, development of human capital among women and girls is subject to a number of additional constraints that will need to be addressed directly. Many of the initiatives of the first pathway will have strong positive impacts on the second pathway—measures taken to boost productivity and create jobs in the Kenyan economy will not only be beneficial for growth, but will also have a strong effect on reducing inequality and promoting human capital formation.

In terms of lost productive capital for Kenya, the long-term costs associated with underinvestment in health care are massive. There is an urgent need to increase spending on health care and launch a battery of priority interventions. The expansion of programs to improve nutrition and reduce rates of stunting will be essential for ensuring that children reach their full productive capacity when they become working adults. High child and maternal mortality rates should also be the focus of major public policy interventions. There is an opportunity to reengineer primary health care in the country, with a new focus on preventive services and health promotion. Achieving universal health care coverage is part of the government's Big Four Agenda, and progress is being made. The productivity of health care workers should be improved, by ensuring an appropriate mix of skills among staff and a more balanced distribution of resources.

Kenya will need to make strategic long-term investments in education. Effective strategies include focusing on schooling for learning (i.e., focusing on learning outcomes and student proficiency), increasing the efficiency of spending, and addressing wide regional disparities, particularly for the arid and semi-arid regions. Promoting collective action and coordination between various actors in the sector will be required to ensure a common approach to policy implementation. Increasing secondary school enrollment rates among the poor will require demand-side interventions, including scholarships, in-kind support, and cash transfers. In parallel, the quality of teaching should be improved through multiple interventions, including strengthening links between performance and full-time positions or employment benefits. Investments in early childhood development should also be prioritized, and improvements will need to be made in tertiary education performance. Finally, extending broadband connectivity to all schools would enable distance learning capabilities, which are critical in the case of a pandemic or more generally to enable students from rural areas or those facing other challenges to access educational resources.

Kenya should increase investment in safely managed water, sanitation, and hygiene (WASH) infrastructure and institutions to help develop human capital and combat COVID-19. Because of the multi-sectoral nature of human capital development, interventions aimed at combating undernutrition and stunting will not be effective unless they include a WASH component. In the context of a disease outbreak, safely managed WASH services are critical not only in combating infection, but also during the recovery phase to mitigate secondary effects on community livelihoods and well-being. Within the

sanitation domain, institutional mechanisms will need to be established to allow for effective cooperation and coordination between the water, environmental, and health management entities. To meet the financing gap in the water sector, Kenya should employ a combination of dedicated public budget allocation and blended financing, especially in marginalized and underserved regions.

The expansion of social protection programs will be important for helping the poor increase their productive potential. The Government of Kenya is committed to moving beyond cash transfers to an integrated social protection system to enhance the social and economic inclusion of poor and vulnerable individuals. The immediate priorities should be to increase coverage of the poorest households and to reassess the adequacy of benefits, preferably by indexation with inflation. It is equally critical that the government develop a robust system of social insurance for workers in the informal sector. Existing schemes could be expanded with the creation of a specialized administrative platform that can better manage the small, varying contributions of informal sector workers. Given the global economic effect of the COVID-19 pandemic, social safety nets will be even more critical in addressing the needs of the poor. A social registry able to identify households most vulnerable to shocks such as droughts and pandemics would allow the government to address vulnerabilities more precisely and quickly.

Digital technologies present opportunities to disrupt business as usual and address Kenya's stubborn constraints on human capital development. A self-motivated individual has a world of information at their fingertips through digital platforms such as YouTube to build their skills as an auto mechanic, plumber, or videographer, for example. Social protection payments and other voucher schemes can be implemented using mobile money, linked with the new national identification number (*Huduma Namba*) at low administrative cost and with little hassle in even the remotest areas. Technological innovation can be used in health care as well, especially at the county level, where resources are lacking. New digital platforms have already begun to change public health care administration, increasing the efficiency of core services. Kenya is making a concerted effort to embed digital skills in the national education system. Flagship initiatives such as the Digital Literacy Program have been designed to integrate ICT into the education system, but insufficient teacher training and a lack of digital devices and connectivity have limited training delivery and skills attainment.

The third and final identified pathway is Improving Governance for Service Delivery.

Establishing effective institutions and systems to govern the public sector is a multifaceted task involving the interrelationship between national and county government institutions and state and non-state actors regarding public policies, practices, institutions, and outcomes. In Kenya, efforts to create new governance arrangements need to factor in corruption, given the role that corruption has historically played in public institutions. Successful programs to reduce corruption are specific and outcome-focused, and are combined with policy changes that reduce opportunities for corruption. Addressing corruption effectively requires the visible demonstration of concrete results. Public trials and convictions for corruption can demonstrate a commitment to punishing misbehavior and indicate that no one can act with impunity. At the same time, simply increasing the number of criminal convictions or administrative sanctions is unlikely to have a major effect overall. It is important to identify focal areas for anticorruption work that can serve as the leading wedge for reducing corrupt practices, such as reducing corruption in public procurement.

It will be important to strengthen incentives for collective action in the identification and resolution of constraints that focus on service delivery outcomes rather than institutional or individual inputs. Crucial to this process is the flexibility to respond to changing problems and the identification of relevant stakeholders to collaborate with. It will also be important to broaden the "bargaining space" for policy making to ensure meaningful participation of all relevant players so that their interests are effectively rebalanced. However, doing so is challenging because not all counties have put in place mechanisms through which the voices of citizens can influence decision making. Also, the lack of clarity in institutional and organizational mandates and management systems in many instances works at cross-purposes to the overall objective of increasing productivity. Finally, a renewed focus on coordinated strategic planning will be critical for achieving development outcomes over the long term.

Devolution has largely been a political success and has widespread popular support. Since their election in 2013, county governments have taken on extensive responsibilities for the management, financing, and delivery of a wide range of public sector functions. Counties can make subnational laws, can raise their own revenues, and have extensive human resources management powers. Nonetheless, the division of functional responsibilities between levels of government needs to be further clarified. Although the constitution provides overall normative guidance, in practice there remain ambiguities, inconsistencies, and duplication. Furthermore, adequate funding of devolved functions will be essential for ensuring accessible, high-quality services at the county level. Expanding participatory governance and monitoring into the decentralized system would increase the efficiency of public spending. Citizens need to be given a greater voice with respect to local service delivery by creating more extensive and more meaningful participatory processes with respect to service delivery chains. If properly implemented,

devolution promises to improve governance significantly by ensuring that authorities are more directly accountable to citizens.

Cutting across all three pathways are foundational issues that should be considered in the implementation of any development initiative: sustainability, inclusivity, and digital technologies.

Macro stability is fundamental to Kenya's growth prospects and by extension to poverty reduction. A durable consolidation of the fiscal stance is needed to re-create the necessary fiscal space for the public sector to deliver on development priorities. So as not to compromise future growth, most of the moderation in expenditures will need to come from reining in recurrent expenditures and improving the efficiency of spending. Interest service payments account for 33.8 percent of tax revenues (versus 16.5 percent in 2012), and a fiscal consolidation trajectory that achieves and sustains primary balances will help stem the rise in debt stocks and curtail debt service payments. Other specific expenditure-limiting measures include SOE reforms to reduce their drain on fiscal resources and streamlining government agencies where functions are being duplicated. Further public sector wage growth needs to be moderated and payroll audits completed. In parallel, measures should be taken in revenue management. Overly optimistic revenue projections have contributed to fiscal slippages, and more realism is needed. Revenue leakages from exemptions granted on VAT (3.6 percent of GDP) and corporate income tax (1.8 percent of GDP) amount to more than 5.0 percent of GDP, suggesting that there is significant scope for boosting revenue by closing tax exemptions. Nevertheless, in light of COVID-19, fiscal space will need to be re-created over the medium term, because in the near term the priority should be to use fiscal policy to dampen the harmful effects of the pandemic on lives and livelihoods. However, efforts to improve the efficiency of expenditures can already begin.

Climate change poses a risk for the sustainable implementation of all three pathways, and interventions will need to be climate smart to ensure sustainable outcomes. Developing a capacity for adaptation and building resilience to climate shocks are essential components of future growth in Kenya. The broader use of natural capital in the country means that Kenya must be particularly careful to think sustainably and maximize its climate change readiness, specifically in agriculture, fisheries, and tourism. Beyond the importance of environmental resilience, addressing climate change will also create opportunities for economic growth. New public and private investments in renewable energy can create jobs, and climate-smart agriculture and landscape management can increase productivity. Kenya will also need stronger crisis prevention measures to ensure the long-term stability of its development efforts in the face of unforeseen natural disasters, health crises, and economic shocks.

Increasing gender equality and diversity enhances productivity, improves development outcomes for the next generation, and allows businesses and institutions to perform more effectively. Gender inequalities in jobs and assets reduce productivity and investment for the economy overall and generate large and lasting negative impacts on household incomes. Closing gender gaps in Kenya will require a comprehensive strategy with targets across sectors and will necessitate addressing social norms to enhance human capital by improving women's health, education, and skills. The effects and costs of gender-based violence on health and well-being are also significant barriers to development, gender equality, and women's socioeconomic engagement. Recommendations include the consolidation of ongoing efforts at the county level to strengthen capacity for integrated, multi-sectoral service provision for survivors, including support for the holistic provision of care and for referral pathways for medical, psychosocial, and legal support.

Taking advantage of these opportunities will require addressing stubborn bottlenecks that are preventing the digital economy from achieving its full potential in driving growth, job creation, and service delivery. Solutions include having more independent, agile regulation of the telecommunications market to ensure competition, investment, and affordability of services, as well as strategic public and private investments in digital infrastructure networks to increase reach and performance throughout the country. Kenya's increasing levels of connectivity and wider adoption of digital technologies can also provide a foundation for improving the efficiency and effectiveness of public service delivery. Processes can be automated, improving the customer experience and decreasing opportunities for corruption. However, as economic transactions, public services, and social interaction increasingly go digital, it will be critical to ensure that rural populations and vulnerable groups are not left behind.

The SCD—based on five filters—identifies seven key priorities for Kenya to advance the twin goals.

Specific policy interventions are prioritized by their impact on the twin goals and on spatial equity. Constraints are specified for each of the two strategies for achieving the twin goals. Given the numerous constraints identified, it is important to prioritize the most critical reform actions within each of the pathways that can accelerate attainment of the twin goals. This SCD adapts the filtering criteria provided in the World Bank SCD guidelines. The criteria used here are: (1) the impact of the specific reform on the twin goals, (2) the improvement of spatial equity, (3) the complementarity of the reform action with other interventions, (4) the time horizon

for the reform to have an impact, and finally (5) the feasibility of being able to carry out the reform action.

Priority 1: Improving the Operating Environment for Firms. Significant gains can be made by removing regulatory barriers, enhancing regulatory management systems, promoting better market discipline mechanisms for SOEs, and encouraging private sector solutions. It will be important to increase access to finance for MSMEs by establishing an efficient credit guarantee scheme, leveraging financial technology and alternative data sources for MSME finance, building the capacity of SACCOs, and increasing the accessibility of capital for early-stage enterprises. Inefficiencies in land markets should be addressed through better land record management and property registration systems, implementing the National Land Use Policy (2016), completing the National Spatial Plan, and leasing unused public lands to private sector actors.

Priority 2: Opening Markets and Enhancing Competitiveness through Infrastructure Upgrades. Infrastructure investment can help transform urban centers into hubs of productivity and job creation by investing in water and sanitation infrastructure, leveraging public-private partnerships (PPPs) to advance infrastructure development, and providing adequate maintenance budgets for new infrastructure. Geographic and economic integration can be enhanced by further developing the northeastern transport corridor and upgrading rural infrastructure. Finally, infrastructure upgrades can enhance connectivity with regional and global markets through investment in regional trade corridors, the promotion of regional private sector initiatives, improvements in railway planning, and development of a national aviation policy.

Priority 3: Enhancing Commercialization Opportunities across Agriculture Value Chains. Sector-specific restrictions that limit private investment in agricultural value chains should be removed. Training on relevant standards and streamlining the issuance of relevant certificates would allow farmers to join domestic and global value chains. The government can also leverage existing cooperatives to help smallholder farmers benefit from value chain opportunities. Finally, new agricultural coordination mechanisms, such as the National Commodity Exchange, can create important synergies throughout the sector.

Priority 4: Improving Access to Quality Primary/Basic Health Care. Public spending on health care and select priority initiatives should be reallocated to the county level as quickly as possible, and the efficiency of health care spending should be increased. Health care priorities should be changed, with specific public policy interventions to address the high rates of child and maternal mortality, as well as stunting and malnutrition. The productivity of health care workers needs to be enhanced by establishing the right incentives and payment mechanisms, reducing absenteeism, and ensuring a more balanced sharing of resources.

Priority 5: Improving Access to Quality Education Services to Improve Learning Outcomes. The long-term strategy of the education system should focus on schooling for learning and addressing regional disparities that persist in Kenya. The substantial lack of equity in access should be addressed, especially for girls and residents of informal settlements. The quality of teaching needs to be improved through greater reliance on contract teachers to fill the more than 100,000 vacant positions, better teacher professional development, and a stronger monitoring and performance evaluation system.

Priority 6: Strengthening Anti-Corruption Mechanisms and Institutions. Although punitive measures such as the arrest and prosecution of individuals have an effect, a more sustainable approach would be to promote performance and accountability for service delivery. Public services, including permits and licenses, should be digitized; a digital land registry should be established; and public procurement procedures should be reformed.

Priority 7: Strengthening Devolution to Enhance Service Delivery. Participatory governance mechanisms should be expanded, public expenditure should be made more transparent, and the roles of national and county governments should be more clearly defined. Building the capacity of county governments will also be important, including greater funding for county-level service delivery and better human resources management.

Finally, progress in closing data and knowledge gaps needs to be sustained. Although Kenya has made impressive progress in closing essential data gaps, further efforts are needed to increase the frequency of surveys, for example to close additional data gaps in the context of agricultural data while creating a more integrated national statistical system, including ministries and agencies as well as counties.

1. Country context

1.1 Geography and people: A land of great diversity

Kenya is a large country in East Africa with great geographic and topographical diversity. The rich variety of Kenya's regions includes the Indian Ocean coast, the Lake Victoria basin, the Rift Valley and associated highlands, and the eastern plateau forelands. The country's climactic diversity is also remarkable, including arid, semiarid, temperate, and tropical zones.

Historically, Kenya has been a melting pot of diverse cultures and people groups. There are three main African groups in Kenya: Bantu, Nilo-Saharan, and Afro-Asiatic. Bantu is by far the largest group, and its speakers are mainly concentrated in the southern third of the country. The Swahili language and culture developed as the Bantu-speaking peoples developed trade links with seafaring Arab settlers.[1] Europeans first visited the region in 1498, and the Portuguese and Omanis later fought for control of the Kenyan coast and the associated trade routes.

Kenya's sociocultural complexity continued to grow into the modern era, and it is now one of the most ethnically and linguistically diverse countries globally. In addition to the African population, Kenya is home to groups who immigrated there during British colonial rule, including from India and Pakistan during the 19th century. Reflecting its rich and diverse history, Kenya ranks at the 97th percentile for ethnic and linguistic diversity among its peer lower-middle-income countries (box 1). This cultural complexity has had implications for governance and economic development.

1.2 Ethnic fractionalization, social cohesion, and governance: The journey so far

Political competition in Kenya has traditionally been divisive in terms of political party and ethnicity. Some regions are home to specific communities, and geographic inequalities are often seen through the lens of ethnicity. Historically, there has been intense competition for political power as groups and their elites seek to access existing positions and gain advantage by designing and implementing policies. This strategy of clientelism, in which elites exchange public resources and material goods

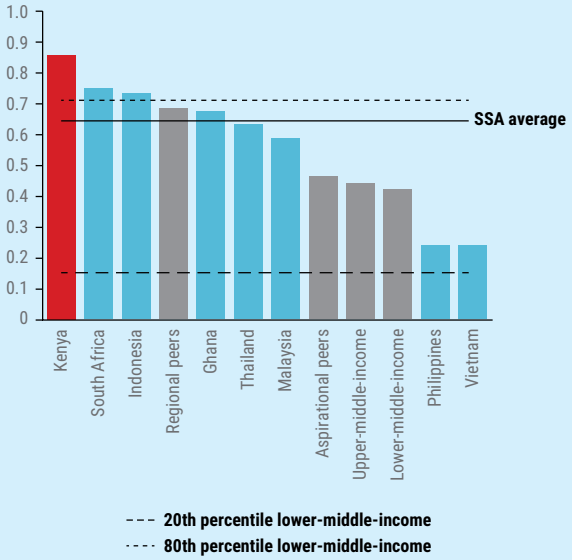
1 Nurse and Spear (1985).

Box 1. Ethnic fractionalization and development: Blessing or curse?

Evidence of the effect of ethnic fractionalization on development is mixed. Some researchers have found that high levels of ethnic fractionalization have a negative impact on democracy and the rule of law, as elites seek to capture state resources for the benefit of the ethnic groups they represent. This rent-seeking behavior leads to inefficient economic policies and a weak provision of public goods.[a] High levels of ethnic diversity have also been linked to corruption, patronage and nepotism,[b] and conflict.[c] In Africa, the most common form of corruption entails distribution of rewards, jobs, contracts, and promotions on the basis of ethnicity (Kimenyi 2006). La Porta et al. (1999) suggest that, in ethnically heterogeneous societies, groups that gain power have an incentive to use state institutions to improve their position in relation to those of other ethnic groups. They predict that greater heterogeneity will lead to more interventionist, less efficient institutions (institutions serve the redistributive interests of ruling groups), fewer public goods (to prevent strengthening other groups), and less political freedom (to reduce the risk of losing power). Ethnic diversity is not always associated with poor performance;[d] greater diversity has been found to increase productivity[e] and trade,[f] and without a dominant group, political contestation is more competitive, increasing voice and accountability.

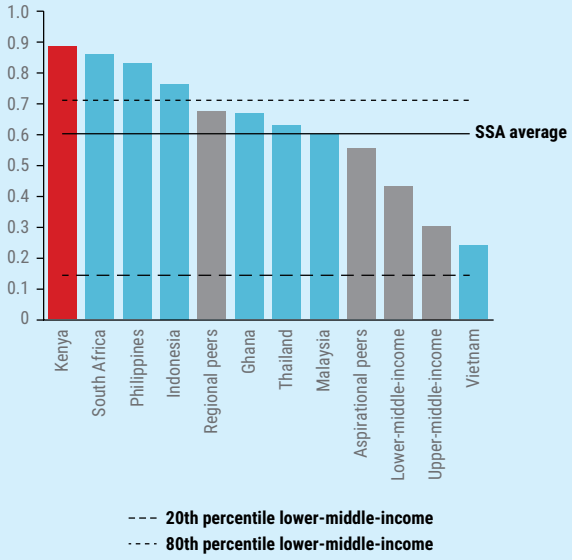
The level of ethnic and linguistic heterogeneity in Kenya is greater than in comparator countries (figure B1.1, figure B1.2). There are at least five large groups (each more than 10 percent of the population), but none of these is large enough to dominate all others. Groups form alliances to compete in a "first past the post" electoral system in which a simple majority of votes wins an election outright. This system encourages elites to mobilize ethnic constituencies. Those who lose are largely excluded from power arrangements, and almost immediately they begin to establish new alliances in preparation for the next election. This has established an inconclusive state of elections as a feature of Kenya's politics, with continued threats of political violence and general instability at election times.

Figure B1.1. Ethnic fractionalization by country



Source: Find My Friends using the Typology Dataset.

Figure B1.2. Language fractionalization by country



Source: Find My Friends using the Typology Dataset.

[a]Easterly and Levine (1997); Alesina et al. (2003).
[b]Alesina, Baqir, and Easterly (2000).
[c]Collier and Hoeffler (1998); Alesina and Drazen (1989).
[d]Alesina and La Ferrara (2005).
[e]Ottaviano and Peri (2005); Sparber (2010).
[f]Gould (1994); Girma and Yu (2000).

for electoral support, has in some instances resulted in partisan policy making. An electoral process based on a "winner takes all" framework is even more volatile given that political parties in Kenya are founded on ethno-regional lines and are not institutionalized. Parties are formed and dissolved quickly simply to ensure that a candidate has a party affiliation.

With challenges in checks and balances, state resources have sometimes been used to create patron-client networks linking the executive to ethnic elites. Until recently, these networks have been how development resources trickled down to the local level.[2] Historical data suggest that distribution of public services such as education, health care facilities, and infrastructure followed patterns of access to political

2 Kanyinga (2016).

power. This had the effect of widening disparities in development, which in turn accentuated narratives of exclusion and grievances about access to power. In 2007, tensions arising from these disparities manifested themselves in contested election results and severe political violence. The violence ended after parties agreed to a roadmap on a new constitution to address the challenges of exclusion and disparities in development.

A new constitution was adopted in 2010 to address governance and development challenges by radically altering the structure of government. It defines two levels of government—national and county—and establishes 47 county governments with powers to foster self-governance, promote social and economic development, and provide services to the people.[3] The constitution delineates the functions of the two levels of government, with counties responsible for delivering health care, agricultural services, early primary education, aspects of water services, and other services. The national government is responsible for making policies on these sectors and setting standards for service delivery. The constitution also requires county governments to receive at least 15 percent of national revenue for the purpose of delivering these services. Disbursement of funds is therefore a constitutional obligation and is not subject to the discretion of the national government.

The 2010 constitution has created new opportunities for change. It establishes a clear separation of powers between the three organs of government and gives greater independence to the judiciary and Parliament, establishing new institutions[4] to counterbalance the power of the executive. The constitution safeguards the political participation of the people as a national value and principle of governance. It requires the public to participate in making decisions on public matters, which has had the effect of creating more space for civic engagement at the local level. At the same time, the constitution provides for a strong bill of rights, which enshrines the rights of citizens to receive social services. Marginalized and vulnerable groups are protected through provisions that require their inclusion at various levels of government and in decision-making processes.

The devolved system of governance was in part a response to the sense of exclusion felt by segments of Kenyan society, including the unfair distribution of resources. In theory, the political decentralization reduces the political stakes of Kenya's presidential elections by mitigating its "winner takes all" character, although the national problem of ethnic competition has to some extent been devolved to the counties through electoral competition for the posts of governor and members of the county assembly.[5] Because these elected officials make decisions about the distribution of resources for the devolved functions at the county level, these power struggles now have much higher stakes. Electoral competition at the county level also tends to follow local divisions such as subethnic lines and other cleavages. This has sometimes resulted in less accountability regarding the use of resources as groups seek to outmaneuver one another to gain control of county resources.

The Taskforce on Building Bridges to Unity is the most recent attempt to investigate critical governance challenges. The taskforce investigated challenges and made recommendations in nine key areas: corruption, lack of national ethos, devolution, divisive elections, safety and security, inclusivity, responsibilities and rights, shared prosperity, and ethnic antagonism and competition. The recommendations are likely to be implemented through further substantial constitutional, legal, and administrative reforms.

There has been notable improvement in Kenya's governance performance since 2010. The World Bank's Worldwide Governance Indicators allow for a standardized comparison of governance metrics between countries. The scores for Kenya show that governance effectiveness, regulatory control, and voice and accountability are relatively strong, in recent years remaining less than half of one standard deviation below the mean for the dataset (table 1). Political stability and controlling corruption have marginally improved but remain close to one standard deviation below the mean. The weaker results for these indicators reflect the ongoing symbiotic relationship between politics and corruption in Kenya.

The governance environment in Kenya has changed substantially in the last several years and continues to evolve in response to the new rules of the game. Public participation has resulted in citizens becoming more vigilant regarding delivery of services, holding national and county governments to account on use of public resources, and questioning how development project decisions are made, although in some instances, public participation is conducted without adequate civic awareness and therefore is regarded as an end rather than a means of fostering accountability in public affairs. The new judiciary has played an important role in magnifying citizens' voices. The courts have in many instances reversed decisions by the executive if such decisions are not arrived at through public participation. The courts have also reinforced implementation of the Bill of Rights by demanding greater attention for promotion of socioeconomic rights.

3 Article 174 on objects of devolution; Government of Kenya (2010).
4 Constitutional commissions and independent bodies that assumed some administrative responsibilities initially vested in the executive.
5 Abdille and Abdi (2016).

Table 1. Kenya's governance performance, 2009–2018[6]

Indicator Estimate	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Voice and accountability	−0.33	−0.22	−0.27	−0.29	−0.21	−0.15	−0.15	−0.12	−0.20	−0.36
Political stability—no violence	−1.43	−1.17	−1.24	−1.32	−1.17	−1.28	−1.24	−1.35	−1.13	−1.16
Governance effectiveness	−0.63	−0.56	−0.57	−0.52	−0.46	−0.33	−0.30	−0.32	−0.32	−0.41
Rule of law	−1.01	−0.94	−0.90	−0.82	−0.71	−0.42	−0.49	−0.44	−0.41	−0.41
Control of corruption	−1.06	−0.91	−0.95	−1.09	−1.03	−0.93	−1.01	−0.89	−0.95	−0.85
Regulatory control	−0.15	−0.08	−0.21	−0.30	−0.30	−0.32	−0.31	−0.30	−0.23	−0.23

Source: Worldwide Governance Indicators.

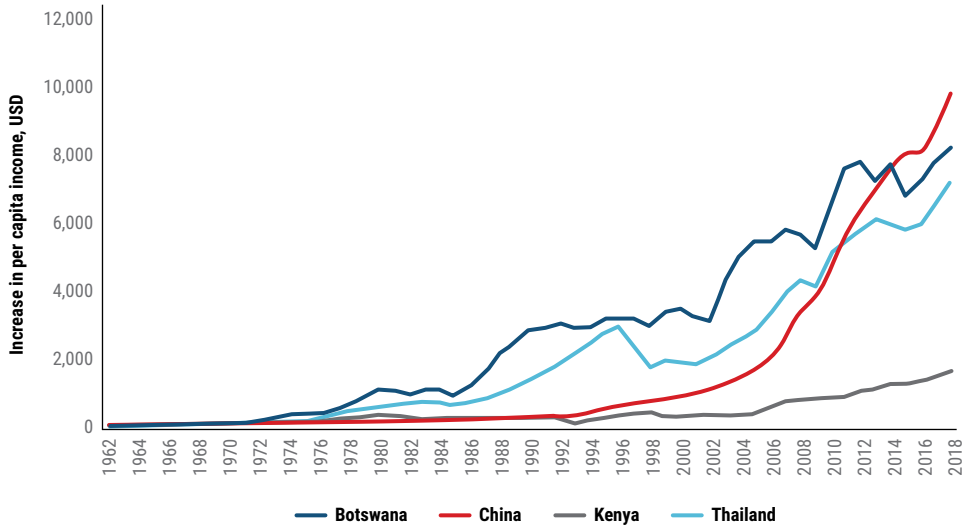
1.3 Governance and development outcomes

The 2017 World Development Report on Governance and the Law shows that there is a clear positive correlation between aggregate measures of governance and per capita income. It explains that, when powerful groups with narrow interests have undue influence on policy (capture) they can slow economic growth, even in the context of large state capacity.[7] Many academic studies and Government of Kenya reports reflect how development outcomes could have been much better were it not for governance challenges such as corruption, weak public accountability, and a culture of impunity.

These governance challenges have limited Kenya's ability to capitalize on development potential and improve development performance. At independence in 1963, per capita GDP in Kenya was higher than in Botswana and China and similar to that in South Korea and Thailand. Nonetheless, almost six decades later in 2013, the per capita income level in Kenya is only one-fifth of Botswana's, one-fourth of Thailand's, and one-sixth of China's (figure 1). These governance challenges have undoubtedly limited the effectiveness of development strategies, especially by contributing to misallocation of productive resources, which in turn has lowered productivity growth—the main source of long-term economic growth and differences in wealth between countries.[8]

Despite this long-term underperformance, development outcomes have improved since the first transition of power under multiparty democratic elections. Since 2003, per capita GDP in Kenya has increased by more than $1,200, compared with an increase of only some $300 in the first four decades of independence.[9] Similarly, compared to the first four decades following independence in 1963, there have

Figure 1. Since independence in 1963, Kenya's per capita income has grown less than its peers



6 To make the Worldwide Governance Indicators comparable, an Unobserved Components Model (UCM) is used to construct a weighted average of the individual indicators for each data source for all countries. The composite measures of governance generated by the UCM are in units of a standard normal distribution, with mean zero, standard deviation of one, and running from approximately −2.5 to 2.5, with higher values corresponding to better governance. Details of the methodology can be found at https://info.worldbank.org/governance/wgi/

7 World Bank (2017b).

8 Hope (2014); Government of Kenya (2006).

9 The last time Kenya saw a similar pace of increase in per capita GDP was in the first seven years of independence.

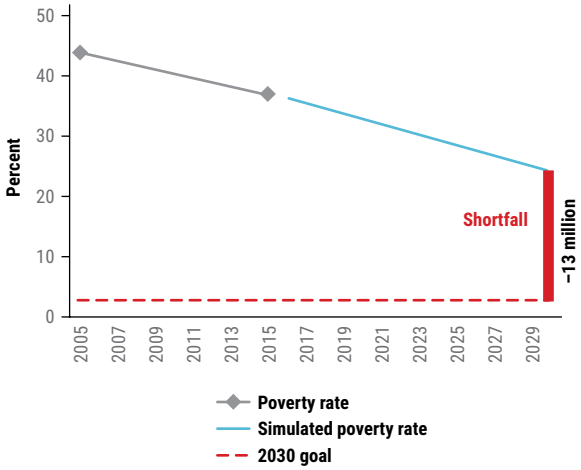
been improvements since 2003 in other non-income measures of welfare, including access to education, preventing maternal mortality, and infrastructure.

Poverty rates have also declined over the last decade, but nonetheless remain high by the standards of lower-middle-income countries. The share of the population living below the national poverty line[10] fell from 46.8 percent in 2005/06 to 36.1 percent in 2015/16 and was projected to drop to 33.5 percent in 2019, reflecting a modest but sustained improvement in living standards over the decade. Because of the agricultural sector's heavy dependence on rainfall, poverty reduction accelerated during years of good weather and slowed during years of drought. Meanwhile, Kenya's poverty rate with respect to the international poverty line also declined, falling from 43.7 percent in 2005/06 to 36.8 percent in 2015/16 and 33.4 percent in 2019, below the Sub-Saharan Africa average and among the lowest levels in the East African Community.[11]

With current growth assumptions and unchanged policies, poverty will persist through 2030. The country's moderately robust GDP growth over the past decade has not generated commensurate increases in household consumption. Each percentage point of GDP growth has been associated with only a 0.57 percentage point reduction in the extreme poverty rate. Kenya's poverty elasticity of growth is thus below that of Tanzania, Ghana, and Uganda, and is weaker than would be expected given the country's per capita GDP. To eradicate extreme poverty by 2030, Kenya's poverty rate (measured at US$1.90 in purchasing power parity dollars) would have to fall by 6.1 percentage points each year while the country's decade average is just 1.6 percentage points per year. If poverty reduction continues at its current pace, the poverty rate will still be near 24 percent in 2030 (figure 2), or higher depending on the effects of COVID-19.

Accelerating poverty reduction will require faster, more inclusive economic growth coupled with targeted poverty-reduction policies. Poverty reduction is a function of inclusive growth and development, its effect on household incomes and consumption, and transfers within the population. Growth is important to increase the overall resources available to the economy, but growth also needs to be inclusive and pro-poor so that poor households benefit from it. This can be achieved through higher wages, which allow greater household consumption, rather than higher returns on capital, the benefits of which accrue more to the non-poor. Furthermore, transfers within the population can reduce inequality and poverty. Despite high annual growth rates in the last decade, annual household consumption growth was approximately 2.5 percent, whereas inequality decreased annually by 1.25 percent. A combination of policies increasing annual household incomes and consumption growth, as well as reducing inequality, will be needed to sustainably reduce poverty by 2030.

Figure 2. Kenya's poverty rate projected to 2030 based on current growth assumptions



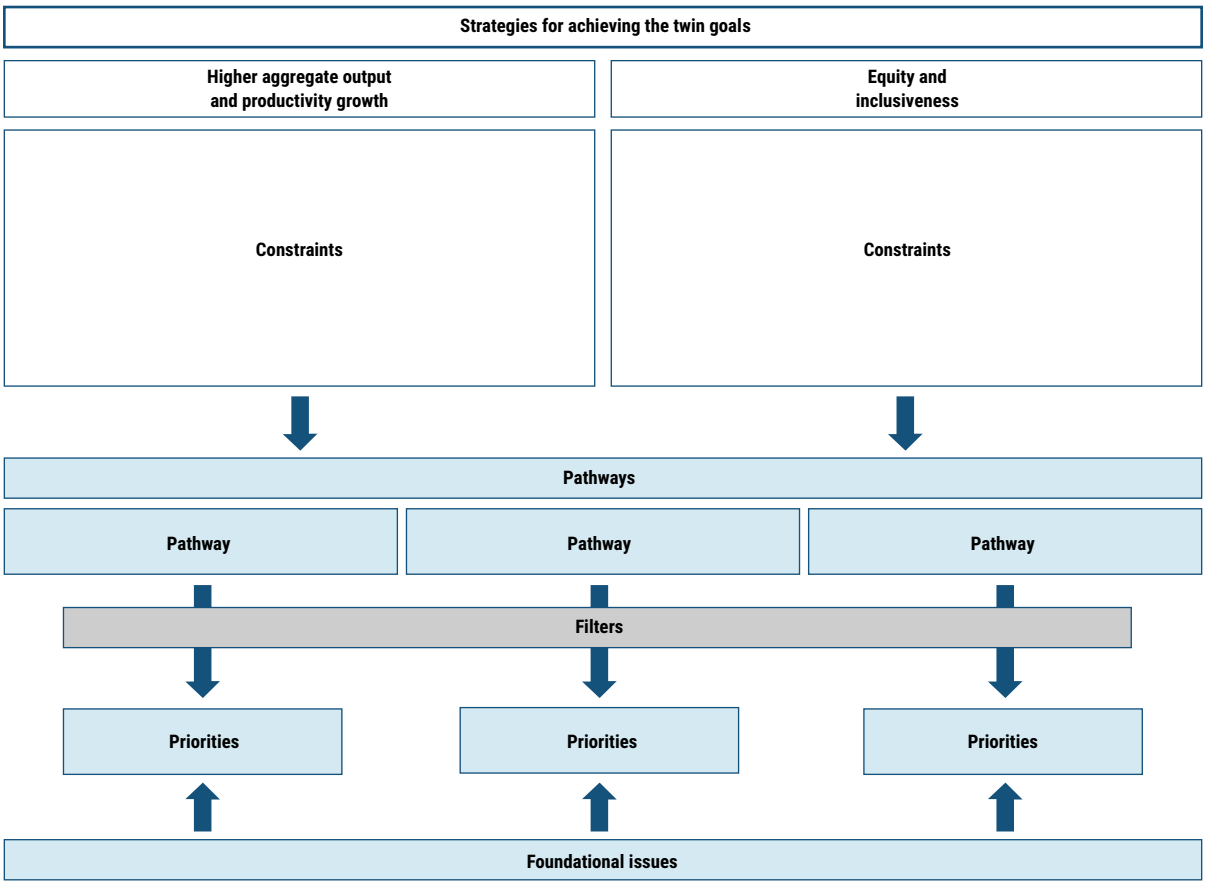
Source: Pape and Mejia-Mantilla (2018).

1.4 SCD conceptual framework: Growth, inclusiveness, and sustainability

The conceptual framework for this Systematic Country Diagnostic (SCD) is influenced by the findings of the recent Kenya Poverty and Gender Assessment, which indicate that attainment of the World Bank's twin goals hinges on achieving faster, more inclusive economic growth. Hence the conceptual framework adopted for this SCD is organized around two main strategies: (1) higher aggregate output and productivity growth (2) and equity and inclusiveness (figure 3). The framework also recognizes that these two thematic areas are interdependent and identifies common foundational factors that underpin the acceleration of the twin goals in Kenya. Against this background, the next two chapters will cover each of the key thematic areas while recognizing the role of governance and institutions as necessary. Given the identified constraints, the fourth chapter identifies pathways that can be taken to accelerate attainment of the twin goals, while the fifth prioritizes the identified pathways. The report concludes with identification of remaining knowledge and data gaps.

10 Kenya's national poverty line is defined as consumption necessary to reach a minimum caloric intake of 2,250 kcal per person per day, including a nonfood allowance.
11 For example, Tanzania's poverty rate declined from 34.4 percent in 2007 to 26.4 percent in 2018, and Rwanda's from 60 percent in 2007 to 34 percent in 2017.

Figure 3. Kenya Systematic Country Diagnostic conceptual framework



2. Critical factors driving output and productivity growth

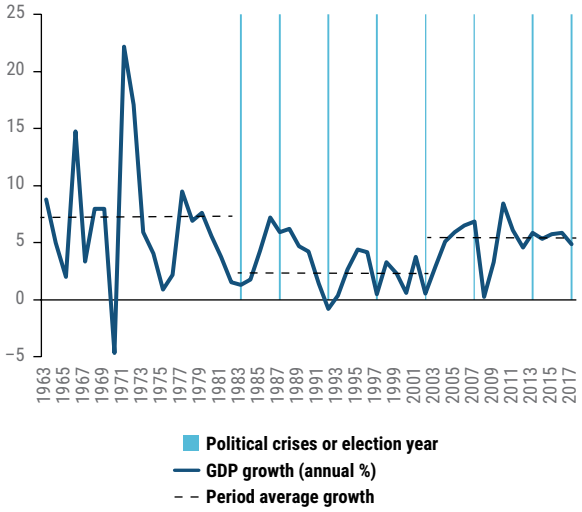
2.1 Growth experience: From economic slump to robust growth

The Kenyan economy has experienced robust, resilient growth over the past decade and a half. Kenya's post-independence economic growth has gone through three broadly distinct phases: buoyant growth, economic slump, and robust rebound (figure 4). With 7.1 percent annual GDP growth from 1963 to 1980, the immediate post-independence period represents the most buoyant growth phase thus far. It was also a period devoid of the frequent political or election-related disturbances that marred the next two phases (figure 5). Growth fell to an average of 2.9 percent from 1981 to 2003, leading to a decline in per capita GDP.[12] Since 2004, GDP growth has rebounded to an average of 5.4 percent and remained resilient during and in the aftermath of the global financial crisis,[13] although the COVID-19 global pandemic poses a significant threat to near-term growth (box 2). Despite performing better than the Sub-Saharan African average, Kenya's growth is below that of a number of regional and structural peers (figure 6). The interrelated factors of governance, structural reforms, and productivity growth have been important drivers of performance. These factors are further explored in this chapter.

The recent recovery in Kenya's GDP growth performance has played an outsized role in reducing poverty. The World Bank's recent Kenya Poverty and Gender Assessment[14] shows that GDP growth (and not the redistribution effect) accounted for some 60 percent of the decadal decline

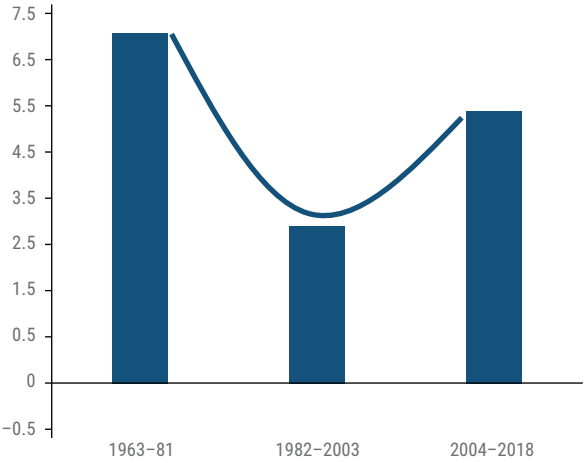
12 Per capita GDP fell from $443 in 1980 to $220 by 1993 and increased to $390 by 2002.
13 If we exclude 2008, when the effect of the postelection violence was most severe, economic growth averaged 5.8 percent between 2004 and 2018.
14 Pape and Mejia-Mantilla (2018).

Figure 4. Annual GDP growth



Source: World Bank.

Figure 5. Average GDP growth by period



Source: World Bank.

Box 2. Effect of COVID-19 global pandemic on near-term gross domestic product growth

Global supply chains are being disrupted, with the availability of intermediate and capital goods decreasing as a result of shutdowns in source countries as well as transport disruptions. Kenya's monthly imports have begun to contract markedly. Goods exports (horticulture, tea, coffee) are coming under pressure. Flower exports have been hit hard because of significant decline in demand in Europe and lack of freight capacity. Travel restrictions have effectively brought tourism to a halt (international and domestic), leading to large losses in a crucial sector. As job losses mount in primary locations of the Kenyan diaspora (United Kingdom, United States, Middle East), a slowdown in remittance inflows is expected.

Policies that have been needed to contain the spread of the virus (social distancing, home confinement, travel restrictions, school closures, bar and restaurant closures, suspension of public gatherings, nightly curfew) are significantly constraining domestic demand. As a result, households have lost jobs or are unable to participate in economic activities, including many poor households that depend on daily wages. Incomes have been lost or are significantly reduced, limiting personal consumption—the largest component of aggregate demand. Furthermore, even for those who are still employed, it is expected that, because of the heightened economic uncertainty, their precautionary savings rate will increase, further dampening aggregate demand. Similarly, as with households, given the collapse in economic activity and the prevailing uncertainty, investment demand from firms is expected to plummet until the crisis clears. Negative feedback loops are exacerbating the situation, as firms that depend on cash flows lack liquidity to fulfill commitments and could close because of bankruptcy.

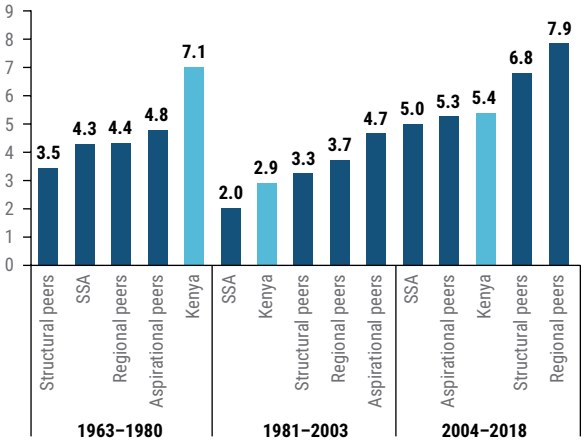
The economic outcome in the near term will ultimately hinge on how the COVID-19 pandemic evolves internationally and within Kenya, along with policy actions and the responses of households and firms, although in a baseline scenario that assumes economic activity is disrupted for only two months, gross domestic product (GDP) growth for 2020 is projected to be 1.5 percent, down from a pre-COVID projection of 5.6 percent. However, in a worse scenario under which disruptions to economic activity persist for longer than two months, economic activity could contract by 1 percent or more. Both scenarios represent the weakest economic growth performance of the Kenyan economy in close to a decade and the first time in a decade that per capita income levels are projected to decline.

Source: World Bank (2020b).

in poverty (2005/06–2015/16) and an outsized 75 percent of the decline in rural poverty (figure 7). Excluding the top 20 percent of urban households from the sample,[15] the contribution of growth to poverty reduction rises to 91.7 percent. Hence the acceleration of GDP growth should help contribute toward an acceleration of poverty reduction in Kenya. This chapter analyzes the drivers of Kenya's recent growth performance and identifies constraints on higher growth.

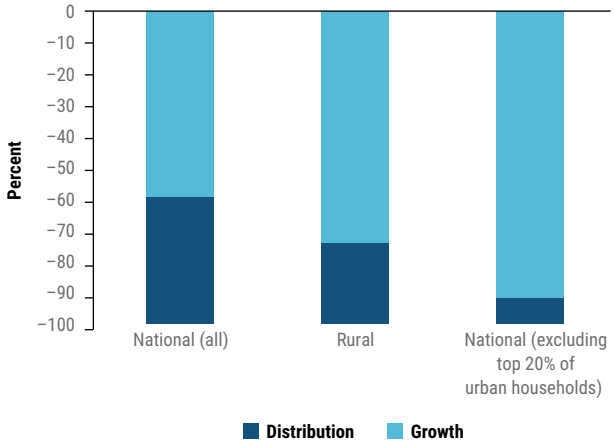
15 The 2015/16 Kenya Integrated Household Budget Survey had an irregularly high level of nonresponse among households in Nairobi, which probably caused the survey to capture the upper end of the consumption distribution inaccurately. Removing the richest urban households from the analysis partially mitigates problems in analysis.

Figure 6. Annual GDP growth for Kenya and peers (%)



Source: World Bank.

Figure 7. Growth has been a key driver of poverty reduction in Kenya over the past decade



Source: Pape and Mejia-Mantilla (2018).

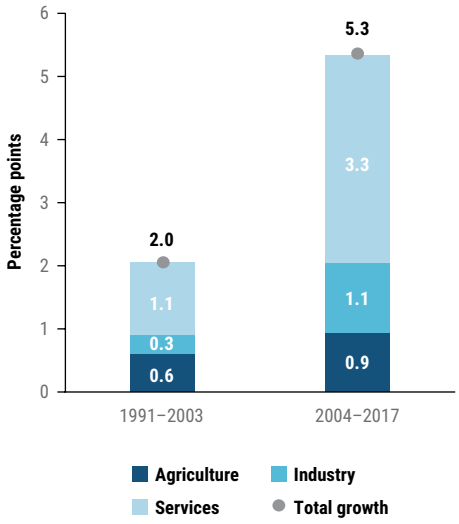
2.2 Drivers of Kenya's growth experience

2.2.1. Supply- and demand-side drivers of growth

On the supply side, the recent recovery in growth has been broad-based but driven primarily by the services sector. All sectors have contributed to the upswing in economic growth of the Kenyan economy since 2003 (figure 8). This broad-based improvement in the economy suggests that the changes in policies, institutions, and investments in the post-2003 era have been supportive of economic activity across sectors. Nonetheless, the services sector has dominated this turnaround, accounting for some three-quarters of the increase in GDP growth, with the agricultural sector contributing the least to the increase in GDP growth since 2003—a situation similar to those of Kenya's regional peers (figure 9). The industrial sector's contribution has also increased, although growth of its nonmanufacturing subsector (e.g., construction, which has benefited from an increase in public investment) has been the main determinant. These trends in sectoral contributions since 2003 have persisted throughout the devolution era (post-2012), with the main difference being acceleration in the growth of the services sector.

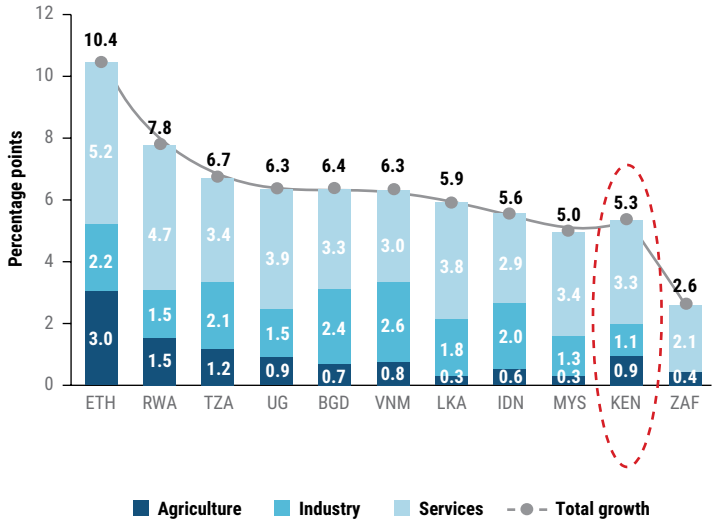
The agricultural sector has made relatively weak contributions to growth, and climate change makes this sector even more precarious. Weather patterns tend to be the strongest determinant of agricultural output, given that only 2 percent of arable land in Kenya is irrigated. Although average annual rainfall is likely to increase because of climate change, the variability of rainfall is

Figure 8. Decomposition of Kenya's growth in value added by major sector



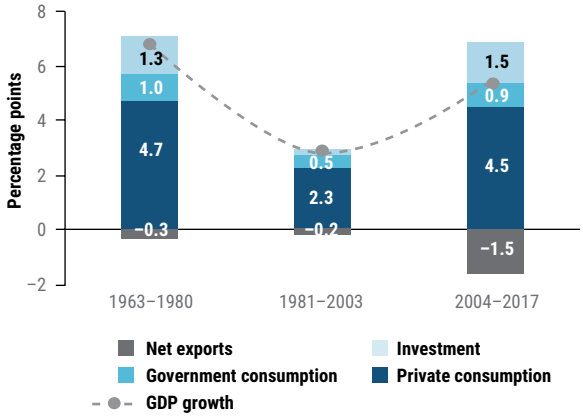
Source: World Bank.

Figure 9. Contribution to growth in value added by country, 2004–2017



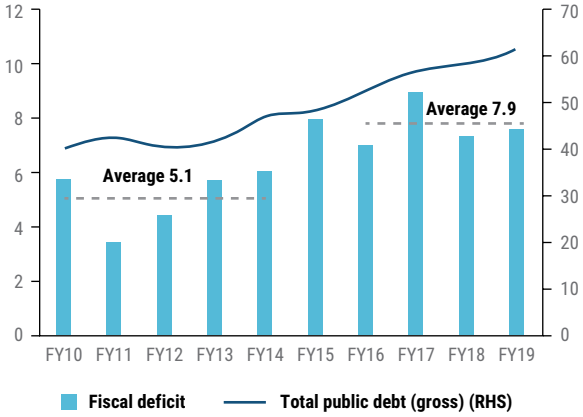
Source: World Bank.

Figure 10. Contribution to Kenya's GDP growth



Source: World Bank.

Figure 11. Public debt, 2010–2019



Source: World Bank.

expected to become more significant for agricultural production.[16] Up to 45 percent yield reductions are expected for maize, rice, and soybean by 2100. Similarly, up to 40 percent yield losses are expected for the crucial commodity crops of tea and coffee, driven by the reduction in areas suitable for cultivation due to temperature increase. In parallel, it is estimated that the cost of climate change for fisheries and aquaculture will be 3 percent of GDP per annum by 2030 and possibly 5 percent by 2050.

On the demand side, an increase in domestic demand has led to a rebound in GDP growth, although the contribution from net exports has been small. Increases in private consumption and investment were the main drivers of the increase in domestic demand (figure 10). The increase in private consumption is consistent with the decline in poverty rates. In contrast, the drag from net exports widened during this period, because the increase in imports (in part due to greater capital expenditures from public investments) was relatively significant compared to the subdued increase in exports.

Increased government spending has been a driver of domestic demand and economic growth in recent years. Since 2012, government expenditure has been on an expansionary path, driven by the establishment of institutions to support the devolved system of government and rising recurrent expenditures (wages, pensions, interest service payments; figure 11). Greater infrastructure spending has also played a role, including the completion of 472 kilometers of the standard gauge railway, adding 3,300 kilometers to the paved road network, expansion of the Jomo Kenyatta International Airport arrival and departure terminals, and acquisition of rail-mounted gantry cranes for the port of Mombasa. Overall, total government expenditure increased to an average of 26.6 percent of GDP in the years between 2013/14 and 2017/18, compared with an average of 23.4 percent in the preceding four years.

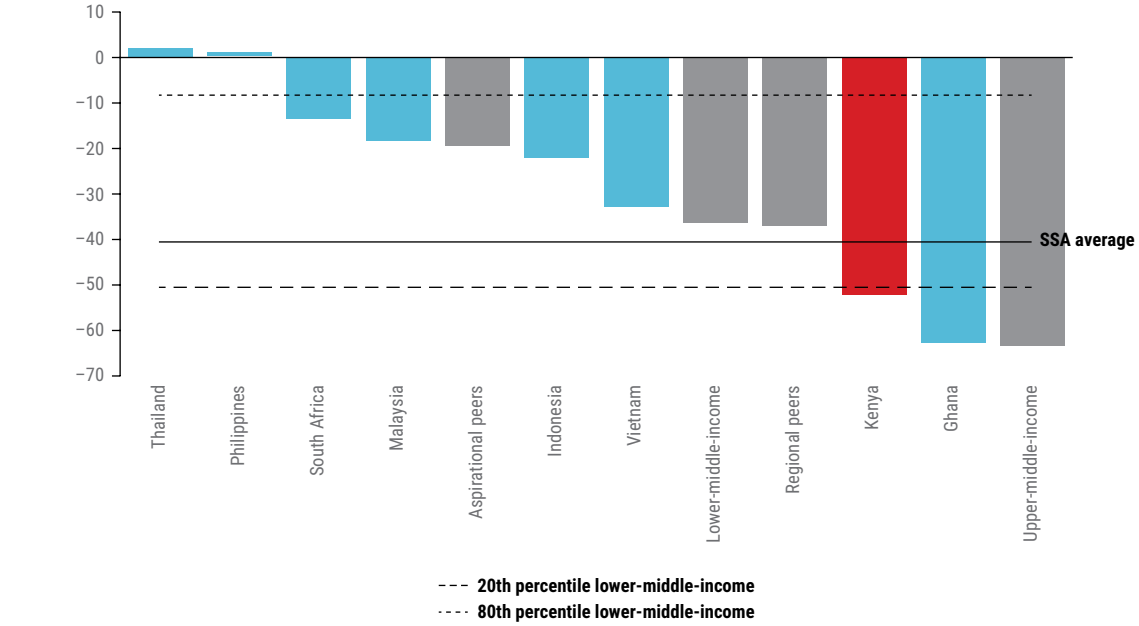
The public sector is however unlikely to remain a driver of growth in the future, given a significant narrowing of the fiscal space. The expansionary fiscal stance has been coupled with the underperformance in revenues (falling from 18.1 percent of GDP in FY13/14 to 16.1 percent in FY18/19), resulting in a rapid buildup of the debt stock from approximately 39 percent of GDP in 2012 to 62.3 percent in FY19/20. As a result, fiscal pressures in Kenya are building, with debt service accounting for 33.8 percent of tax revenues, compared with 16.5 percent in 2012 and 23.6 percent in 2017.[17] Kenya's risk of external debt distress has consequently increased from low to high. Debt stock levels are higher in Kenya than in regional, low-income, and aspirational peers (figure 12). The debt-driven, public investment–led growth model seems to have reached its limit.

2.2.2. Growth accounting: The productivity challenge

Factor accumulation has been the main driver in the recent pickup in growth. Although labor force growth continues to be an important driver, most of the increase in GDP growth in recent decades has come from capital deepening (figure 13). Reflecting still-high population growth but increasingly favorable demographics as younger people reach working age, the expansion of the labor force continues to be the single largest contributor to GDP growth (averaging approximately 2.3 percentage points per annum since 2004). This nonetheless represented a decline in the contribution of labor to GDP growth. More than compensating for this decline has been a significant rise in the contribution of capital stock to GDP growth by some 1.8 percentage points, which has in turn contributed to an improvement in labor productivity.

16 Bryan, King, and Ward (2011).
17 Kenya National Treasury and Planning (2018).

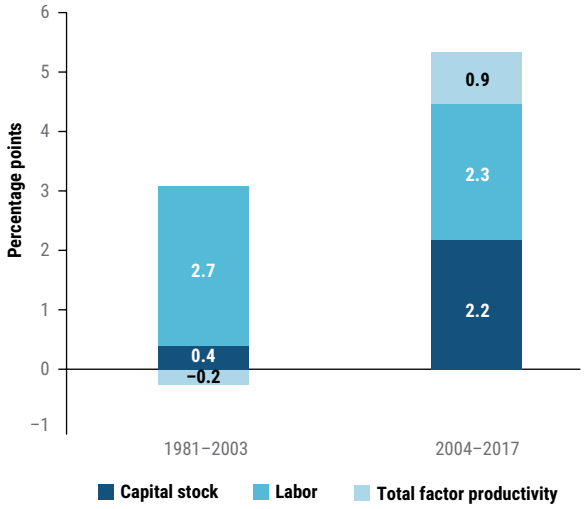
Figure 12. Fiscal balance, percent of average tax revenues (2015–2017)



Source: Find My Friends using the IMF Financial Access Survey and Global Financial Development.

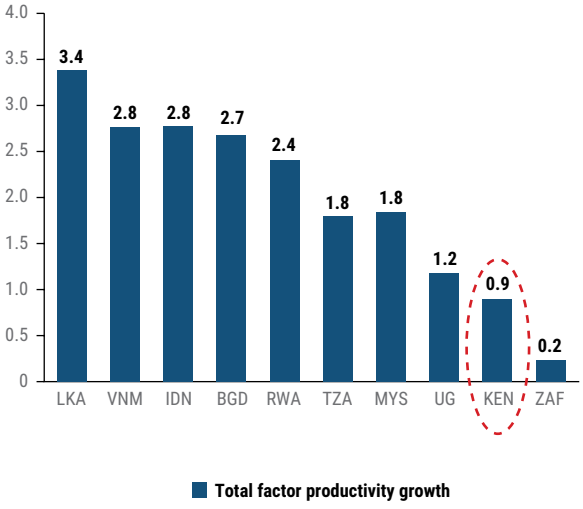
Although the contribution of total factor productivity (TFP) to GDP growth in Kenya is rising, it significantly lags that of comparators. TFP measures the portion of output not explained by the amount of inputs used in production, representing efficiency gains such as improvements in technology and labor force skills. TFP made a positive contribution to growth during the 1980s, but this was cancelled out by a significant decline in the TFP contribution in the following decade. During the post-2003 growth recovery phase, TFP's contribution to GDP growth has averaged some 0.9 percentage points. This return to positive productivity growth has been one of the drivers of the improved aggregate growth performance. This higher TFP growth in the post-2003 period has accelerated in the post-2013 devolution era. Nevertheless, TFP growth in Kenya lags that of several other countries in the subregion (figure 14) such as Rwanda (2.4 percentage points) and of aspirational peers such as Malaysia (1.8 percentage points). Furthermore, one of the effects of the COVID-19 crisis, especially if it persists for a long time, is that it is likely to undercut the potential output of the Kenyan economy (box 3), making it even more important to understand the prevailing constraints on productivity growth. Section 2.3 examines in more detail some of the constraints on productivity growth in Kenya.

Figure 13. The contribution to growth from TFP has risen in recent years . . .



Source: World Bank.

Figure 14. . . . nonetheless, TFP growth's contribution in Kenya is lower than its peers, 2004–2017.



Source: World Bank.

Box 3. Effect of the economic crisis on potential gross domestic product

Long-lasting recessions can undermine not just near-term growth, but also the growth potential of the economy. In other words, recessions can cause a highly persistent loss in aggregate national output.[a] First, a crisis can reduce potential output in the short and medium term by decreasing investment. The ensuing slower capital accumulation can also impact the obsolescence of some capital vintages. Second, credit constraints impair the system of capital allocation. Third, entrenched rigidities (e.g., in labor or product markets) limit the level and growth of total factor productivity over the medium to long term by hindering the ability of the economy to rapidly adjust to the economic shock. Fourth, research and development spending tends to be procyclical, and lower research and development spending and innovation during a recession could undermine productivity growth.[b] Fifth, long periods of recession could lead to permanent destruction of human capital, often engendered by the "hysteresis effect," in which workers who lose their jobs find it difficult to rejoin the labor market.[c]

Although much of the research on this topic has been conducted in Organisation for Economic Co-operation and Development (OECD) economies, several of the channels by which potential gross domestic product growth can be reduced are relevant to the Kenyan situation—in particular, concerning capital accumulation, including physical capital from the public and private sectors, as well as potential erosion of the human capital base.

[a] *Haltmaier (2012).*
[b] *European Commission (2009).*
[c] *Ball (2015).*

2.2.3. Structural reforms, productivity, and governance

Policies, institutions, investments, and exogenous factors influence long-term growth of an economy. Although growth accounting helps explain the sources of growth, it does not explain what the causal drivers of growth are. Economic growth literature groups the drivers of long-run growth into four broad categories: structural policies and institutions, stabilization policies, external conditions, and transitional dynamics.[18] This report uses an endogenous growth model following the work of Loayza, Fajnzylber, and Calderon (2005) and Araujo et al. (2014) to determine the contribution of these factors to Kenya's long-run per capita GDP growth performance. The ensuing discussion will focus on the determinants that policy can influence (mainly structural and stabilization policies) because external conditions and transitional dynamics are exogenously determined for most small, open economies. "Structural reforms" in this analysis refers to changes in government policies, practices, and institutions that can help create an enabling environment for growth and job creation. This can include changes in the domains of public education, financial development, trade openness, government fiscal burden, and infrastructure investment. These reforms are expected to improve productivity and the efficiency of factors of production, increasing the long-run growth potential of the economy. (See Appendix A for details.)

The single most important determinant of changes in per capita GDP growth in Kenya over the long term has been the pace of structural reforms. In the 1980s and 1990s, when growth was at its weakest, the contribution of structural reforms was barely positive—in the 2000s their contribution quadrupled as compared to the abysmally low contribution in the two preceding decades (figure 15). These results are not surprising because the economic literature points to the positive causal relationship between structural reforms and productivity growth.[19]

The slow pace of structural reforms in Kenya in the 1980s and 1990s was detrimental for development outcomes. By the 1980s, the Kenyan economy had been reoriented so that the state controlled several critical markets in a way that it had not during the decade immediately following independence. These included a pegged exchange rate and the licensing of foreign exchange transactions, import licenses, interest rate controls, selective controls on bank lending, and direct price controls (especially of agricultural goods). Furthermore, government consumption spending also rose rapidly relative to economic activity as reflected in a bloated public sector. Although reforms were instituted, they were only partial, with many stop-and-go efforts and limited changes to economic governance. The cost of the slower pace of structural reforms or lack thereof in the 1980s and 1990s, combined with a deepening of governance challenges such as corruption and weakening of the rule of law, contributed to the economic

18 Transitional convergence is measured by the one-year lag of GDP per capita. Structural policies and institutions are measured by using as proxy indicators the combined effect from schooling, financial development, trade openness, government burden, and telecommunication infrastructure. Stabilization policies are proxied by the combined effect of inflation, real exchange rate, and a dummy for financial crisis. External conditions are proxied by export price index and terms of trade growth.

19 Bordon, Ebeke, and Shirono (2018); Christiansen, Schindler, and Tressel (2013); Bouis et al. (2012); Bourlès et al. (2010a); Nicoletti and Scarpetta (2003); Syverson (2011).

Figure 15. Drivers of growth in Kenya, 1985–2015 (change in log of GDP per capita)

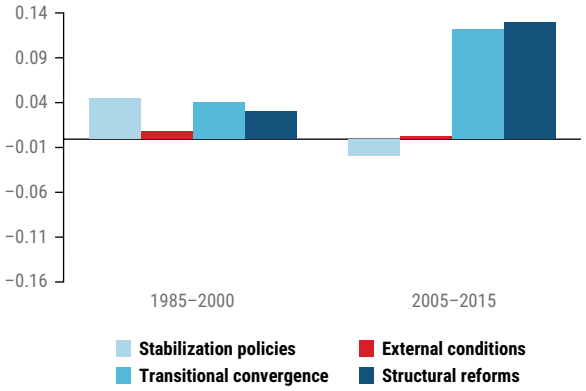
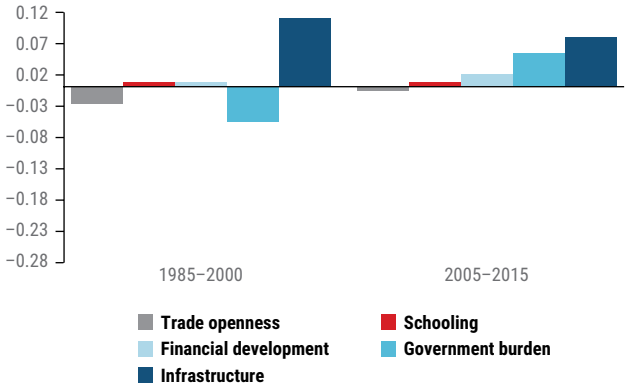


Figure 16. Contribution of structural reforms to growth, 1985–2015 (change in log of GDP per capita)



Source: Authors' calculations from Brueckner (2019) endogenous growth model.

slump from 1981 to 2003, as reflected in the decline in per capita GDP, the increase in poverty,[20] rising crime rates, a deterioration in health outcomes, a decline in school enrollment, and failing infrastructure.

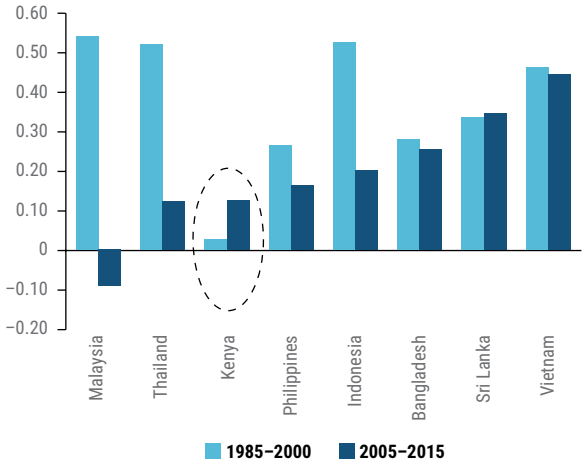
The first democratic change in power to an opposition party since independence occurred in 2003 and opened up some political space to break from the entrenched behaviors of the past and accelerate the pace of structural reforms. Governments since 2003 have increased the pace of structural reforms, including through restoring macro stability, efforts to strengthen and establish governance institutions, rehabilitating and expanding physical infrastructure, investing in human capital, and addressing cumbersome business regulations (section 2.3). Improvements in structural reforms since the 2000s are consistent with the pickup in productivity growth, strong acceleration in per capita GDP, and progress in poverty reduction (Chapter 3). Estimates from the endogenous growth model for Kenya show that improvements to infrastructure, human capital, fiscal discipline (government consumption burden), financial sector development, and trade openness have contributed the most to the improvements in per capita GDP growth (figure 16).

Notwithstanding this progress, the contribution of structural reforms to per capita GDP growth in Kenya still lags that of its aspirational peers, suggesting that there is further room for accelerating structural reforms. Although the increase in structural reforms from the 2000s has arrested the deterioration in economic performance that characterized the 1980s and 1990s, governance challenges persist (section 1.2), and room remains to engender even higher productivity growth by accelerating structural reforms. Simulations using the endogenous growth model show that structural (in particular) and stabilization policies are critical elements for attainment of this vision. Over the next 10 years, were Kenya to advance its structural reforms to the level of its best-performing aspirational peers, per capita GDP growth would increase by 12.7 percent per annum, with 80 percent of that increase coming from structural policies, approximately 6 percent from stabilization policies, and the remainder from transitional convergence. Reflecting the importance of adopting best-practice structural reforms, the benefit to Kenya would drop by more than half were Kenya to calibrate its structural reforms to those of the average of its aspirational peers. Further reflecting the importance of sustaining favorable structural reforms, per capita GDP growth would have declined if progress in structural reforms had been similar to that in Malaysia, the worst performer in the group of aspirational peers (figure 17). The continued and steady increase in TFP growth in recent years suggests that ongoing structural reforms are supporting the increase in growth (figure 18). Nonetheless, TFP growth in Kenya being weaker than in several of its aspirational peers suggests that much room to accelerate the pace of structural reforms remains.

In summarizing the first half of this chapter, four key observations can be made. First, although Kenya's growth performance has recovered to relatively robust levels in recent decades, there is room for improvement. Second, given the narrowing of the fiscal space, the extent to which the public sector can continue to drive growth has been significantly curtailed, hence the need to spur more dynamism in private investment. Third, although the contribution of total factor productivity to growth is rising, it remains low, with factor accumulation being the main driver of growth in recent years. Fourth, although structural reforms have increased since the mid-2000s (in contrast to the slow pace in the 1980s and 1990s) and have helped increase productivity growth, their contribution to growth in Kenya lags that of peers. Structural reforms being the

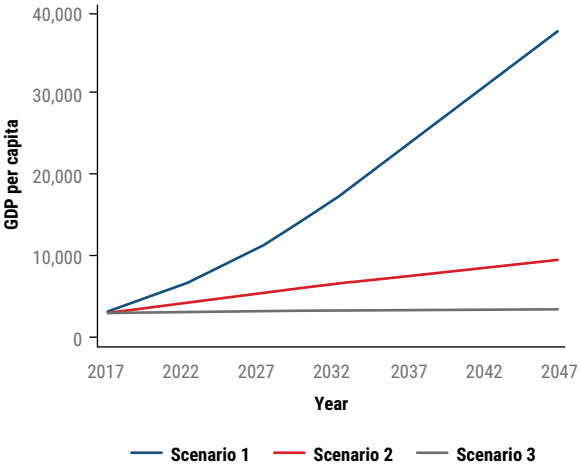
20 Data from Kenyan authorities indicate that poverty is estimated to have risen from 11 million, or 48 percent of the population, in 1990 to 17 million, or 56 percent of the population, in 2001.

Figure 17. Impact of structural reforms on economic growth of Kenya and selected peers (change in log of GDP per capita)



Source: Authors' computations based on endogenous growth model in Brueckner (2019).

Figure 18. Per capita income growth trends for Kenya if it adopted the best (scenario 1), average (scenario 2), and worst (scenario 3) of structural reforms among peers



single most important determinant of growth over the long term suggests that there is room to accelerate the pace of the structural reform agenda. Given the seismic change in governance since 2012, the positive results of recent higher growth, the increase in total factor productivity, and the increase in the pace of structural reforms have been more pronounced in the devolution era than before, supporting the increase in growth, although fiscal challenges have become much greater in the devolution era than they were in the pre-devolution era.

Understanding the constraints on productivity growth in the Kenyan economy is critical to accelerating future growth. The growth diagnostic undertaken in the first half of this chapter showed that there is room to accelerate growth through productivity increases. The second half of this chapter will focus on the specific constraints on productivity growth in Kenya. This is important not only because productivity increases will boost growth, which has proven to be the most important driver of poverty reduction in Kenya, but also because, in an era of fiscal consolidation in which the contribution to growth from government spending is expected to wane, it is important to maximize growth from available limited resources. With Kenya's productivity growth lagging that of peers, this makes the case for accelerating productivity even more urgent. Furthermore, with the potential of the COVID-19 pandemic to undermine potential GDP growth, understanding the constraints on productivity growth is even more critical to better inform the policies, institutional reforms, and investments that will help rebuild the economy during the post-COVID-19 recovery.

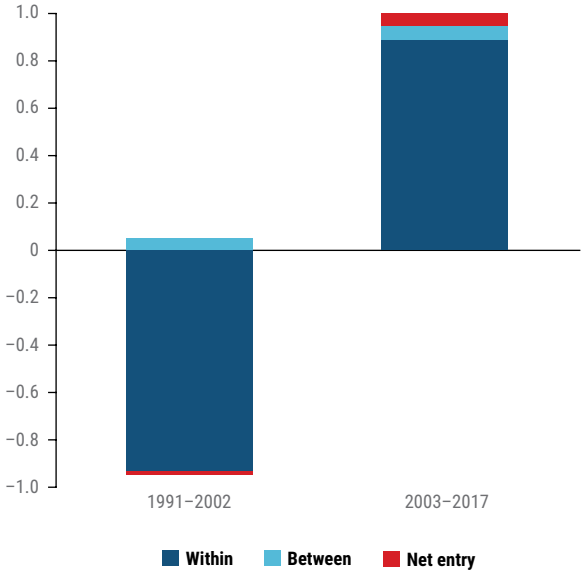
2.3 Constraints on productivity growth in Kenya

Sustained increases in productivity are critical for achievement of the twin goals. Paul Krugman famously said "productivity isn't everything, but, in the long run, it is almost everything." Long-term increases in earnings in industry or agriculture—the source of employment and livelihoods for many of the poor—can be achieved only by increasing worker or farmer productivity.[21] To analyze the drivers of productivity growth in Kenya, this SCD adopts the conceptual framework presented in Cusolito and Maloney (2018). At the core of their framework is that productivity growth comes from three main sources: reallocation of factors of production across firms and farms from less to more productive ones; improved within-firm and -farm performance; and greater dynamism, which allows for entry of more productive firms and exit of less productive firms.

Productivity increases within firms and farms have predominantly driven the recent increase in productivity growth, with the contribution from dynamic reallocation being minimal. The contribution of productivity increases from the reallocation of factors of production, and the dynamic entry of more productive firms represents less than 5 percent of the recent increase in total factor productivity in Kenya (figure 19). This is lower than in other countries (figure 20), indicating that Schumpeter's creative destruction process, which historically has accounted for long-term prosperity, is remarkably weak in Kenya. In other words, productivity growth is largely coming from incumbents within the same sector, with

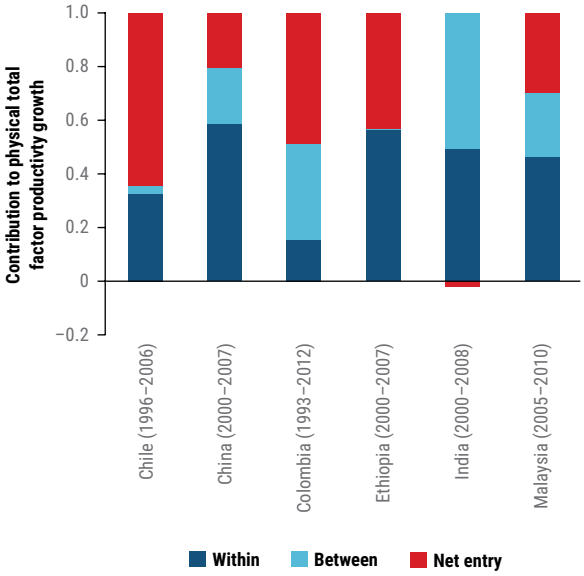
21 Cusolito and Maloney (2018).

Figure 19. Within sector improvements have been the predominant driver of productivity growth in Kenya



Source: Cusolito and Maloney (2018).

Figure 20. Contributions to productivity growth by country and by source



Source: World Bank, using Shapely Decomposition.

little room for new players, a phenomenon that could reflect challenges due to barriers to entry.

The recent International Finance Corporation (IFC) Country Private Sector Diagnostic report provides some insights into some of the constraints affecting the business environment in Kenya.[22] These constraints can be categorized as those that affect the macroeconomic environment (e.g., the crowding out of private investment due to the expansionary fiscal stance) and those of a microeconomic nature that affect the investment climate (e.g., regulatory burden, entry barriers, corruption, a large presence of state-owned enterprises and state-linked enterprises, high levels of informality).

2.3.1. Macroeconomic constraints on productivity growth

Fiscal pressures are the greatest threat to macroeconomic stability, which is essential for creating an economic environment that fosters productivity. Fiscal space has narrowed significantly in recent years, becoming one of the greatest threats to macro stability and by extension to the productivity of the economy. Debt to GDP ratios have surged from 39 percent of GDP in 2013 to 62 percent of GDP in 2019, with the composition of that debt shifting toward more expensive commercial sources. This has increased debt servicing costs, which rose from 2.1 percent of GDP in 2012 to 4.0 percent of GDP by 2019. Furthermore, the recent increase in external commercial lending has increased the vulnerability of the economy, given the vagaries of global financial markets. The significant narrowing of fiscal space is thus limiting the ability of the state to finance critical public goods needed to support inclusive growth, including in health care, water and sanitation, and education, as well as to provide more resources for devolved units and development expenditures. The fact that revenues have continued to underperform and that most of the rigid expenditures are in recurrent expenditures makes the situation more challenging.

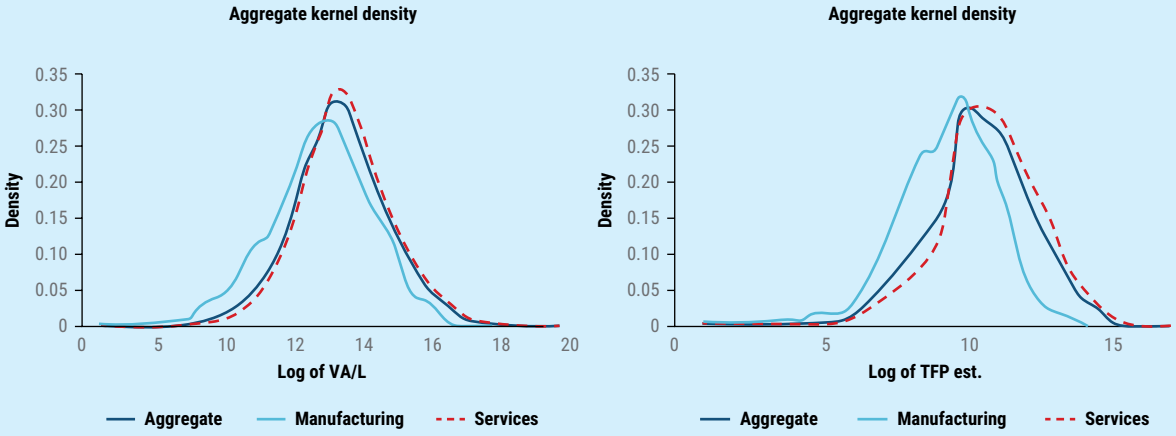
The fiscal measures taken to mitigate the economic effects of the COVID-19 pandemic, although necessary, have exacerbated fiscal pressures. With rapid accumulation of debt in recent years, large deficits, rigidities in government expenditures, and persistent shortfalls in revenue performance, Kenya entered the COVID-19 pandemic with significantly depleted fiscal space. In recognition of this, the government had set an ambitious fiscal consolidation target to help rebuild fiscal buffers. Given the important countercyclical role that fiscal policy needs to play and the severity of the economic shock, the government has provided some relief to households and businesses by reducing tax rates and increasing spending in the health sector and on social safety nets. The combination of these measures is expected to have widened the deficit by some 1.6 percent of GDP, further delaying the urgently needed fiscal consolidation. Furthermore, reflecting an already challenging fiscal situation and its exacerbation as a result of COVID-19, the most recent debt sustainability analysis found that Kenya's risk of debt distress had risen from moderate to high.

22 IFC (2019).

Box 4. Productivity differentials and resource misallocation across sectors in Kenya

Manufacturing productivity in Kenya is low and lags services productivity. Across the entire distribution, productivity for manufacturing is lower relative to services (figure B4.1). This is consistent with the much stronger contribution of services sector growth over the past two decades to overall aggregate growth, as compared to the contribution from manufacturing.

Figure B4.1. Manufacturing productivity is lower relative to services



Source: Cusolito and Cirera, 2016.
Note: The kernel represents the productivity distribution function and shows the degree of dispersion in productivity across firms. Log of VA/L is labor productivity measured as the value-added of labor, while TFP is the proportion of output not explained by the contribution of the factors of production (labor and capital).

The misallocation of resources in the manufacturing sector is more prevalent than in the services sector, contributing to lower productivity in manufacturing. The kernel function shows wider dispersion in productivity across firms in manufacturing than in services, with the left tail of productivity distribution (where the less efficient firms reside) much thicker for manufacturing than for services. This indicates the potential for the existence of policies that favor survival of inefficient firms in the manufacturing sector more than in the services sector, which suggests that resource misallocation is greater in manufacturing than in services. In other words, high-productivity firms are not able to attract the scale of resources (labor and capital) needed to enable them to optimize output. Given the potential for the manufacturing sector to be a job creator (as also reflected in the Government of Kenya's "Big Four Agenda"), greater resource misallocation in the sector indicates less than optimal output, and by extension the ability of the sector to create decent jobs that can help decrease poverty in Kenya.

Productivity dispersion and resource misallocation are much larger in the Kenyan manufacturing sector than in other countries. A comparison of dispersions in total factor productivity (TFP) with those of other countries such as China and India or other African countries such as Ethiopia and Ghana shows a much larger dispersion of technical efficiency in Kenya than in the other countries for quantity TFP and revenue TFP,[a] which indicates that distortions are pervasive in the manufacturing sector in Kenya. Reflecting the higher levels of distortions in Kenya, the study finds that a more optimal allocation of labor and capital across firms could lead to productivity and output increases of 162 percent in Kenya, compared with 66.6 percent in Ethiopia and 75.5 percent in Ghana. This indicates potential significant benefits to output growth, job creation, and poverty reduction resulting from removal of barriers to optimal resource allocation in manufacturing.

Significant misallocation of resources in Kenya's agricultural sector in part explains the low levels of productivity in the sector, even compared with other Sub-Saharan African economies. A recent study of select Sub-Saharan African economies showed that the difference in agricultural productivity between countries is not because of differences in agronomic conditions but rather due to differences in policies and institutions that misallocate resources between farms.[b] A scenario in which policies are put in place to allow for the optimization of crop selection shows that the yield for all crops increases significantly, although the magnitude of the increase in yields for Kenya is much higher than in comparator countries, suggesting that the degree of distortion in Kenya is higher than in the select Sub-Saharan African countries. In that scenario, under conditions of low rains, it is estimated that aggregate agricultural yields in Kenya will increase by 275 percent, compared with 125 percent in Ethiopia and 25 percent in the Democratic Republic of Congo. The extent of distortion in Kenya is even starker when the scenario is simulated under conditions of high rainfall, under which, thanks to optimization of crop selection, output increases more than 900 percent.

Many policies and institutions contribute to low agricultural productivity in Kenya. Yields of maize (1,628 kg/ha in 2015), Kenya's main staple, are lower than in neighboring Ethiopia and Uganda, and are even lower than levels achieved two decades ago (1,918 kg/ha in 1994). Similarly, yields of Kenya's export crops, such as coffee and pyrethrum, have fallen to levels of two or three decades ago. Insufficient use of good-quality inputs (seeds, breeds, fertilizer, irrigation), decreasing average farm size, inadequate credit, and slow uptake of modern production technologies (mechanization, greenhouses, information and communications technology) limit agricultural productivity. Despite government subsidies, average fertilizer use in Kenya is still only 30 kg/ha, whereas at the peak of the green revolution in Asia, fertilizer use averaged more than 100 kg/ha.[c] Other causes of low productivity include pest and disease outbreaks (fall armyworm, Rift Valley fever), poor soil health (acidity due to excessive use of nitrogen fertilizer), poor delivery of extension services, inadequate investment in infrastructure, climate shocks, and low farm labor productivity.

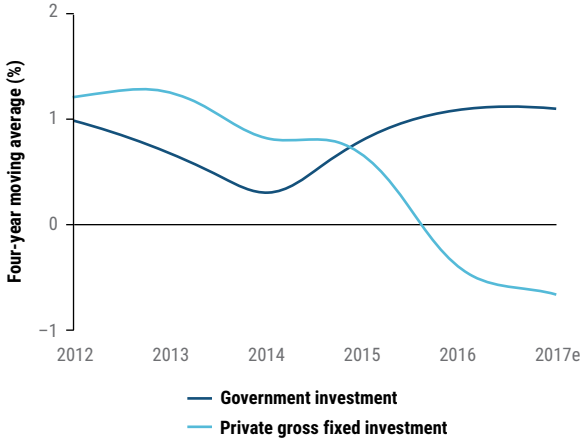
These poor outcomes are in part due to certain institutional arrangements and policy interventions by government that have adversely impacted productivity in the sector. These include policy distortions from interventions in specific agricultural input and output markets, the outsized presence of government state-owned enterprises in certain markets, bureaucratic licensing requirements, and insufficient investment in or support of development of public goods most needed for agriculture (e.g., research and development, irrigation, extension services). Government domination of certain agricultural subsectors (e.g., fertilizer, seeds, grains) has made access to inputs erratic and opened opportunities for rent seeking.

The extent of resource misallocation in the Kenyan economy indicates the need to advance the structural reform agenda. Review of misallocation in Kenya reveals significant distortions in the economy (especially in manufacturing and agriculture) that are impeding optimal allocation of resources in the economy and thereby limiting the overall productivity of factors of production. These results are consistent with the earlier growth analysis that found TFP growth to be low in Kenya, even if it is rising.

[a]*Cirera, Fattal Jaef, and Maemir (2017).*
[b]*World Bank (2019a). Boosting Productivity Growth in Africa.*
[c]*David and Otsuka (1994).*

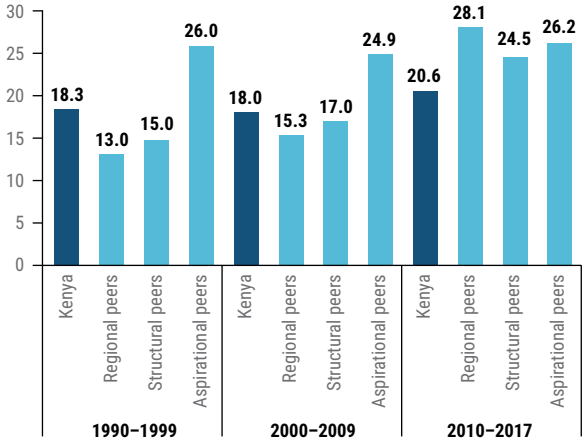
The expansionary fiscal stance in recent years, coupled with the earlier imposition of caps on interest rates, contributed to crowding out private investment and curtailing productivity growth. Unlike the solid contribution to growth from the public sector, the contribution from private investment has been negative in recent years, with the four-year moving average declining from 1.3 percent of GDP in 2013 to negative 0.7 percent in 2017 (figure 21). Given that much public investment in Kenya has been financed through increased debt, including from the domestic market, the increased borrowing has contributed to historically high interest rates, which in turn has crowded out private sector investment, with implications for gross fixed capital formation, which is lower in Kenya than among aspirational peers (figure 22). In September 2016, the government capped interest rates that banks can charge at 4 percentage points above the base rate set by the Central Bank of Kenya. Given the binding nature of interest rate caps, this policy change had the unintended consequence of excluding riskier borrowers, many of whom are small and medium enterprises (SMEs). The removal of caps

Figure 21. Private investment contribution to GDP growth has declined



Source: Kenya National Bureau of Statistics and World Bank.

Figure 22. Gross capital formation (% of GDP)



Source: World Bank.

in November 2019 is, however, expected to ease these credit constraints, although COVID-19 is likely to slow the speed of recovery.

2.3.2. Microeconomic constraints on productivity growth

The business regulatory environment needs to be improved, with investors continuing to complain that it is complex, costly, and unpredictable. Kenya has attracted an average of only 1.2 percent of GDP in foreign direct investment flows in recent years, one of the lowest in Sub-Saharan Africa, which has averaged 4.7 percent of GDP, and is significantly lower than other non-resource-rich countries such as Ethiopia and Rwanda, which have attracted flows in excess of 3.3 percent of GDP. In part this reflects the numerous restrictive regulations at the sectoral level that serve as barriers to entry or invariably protect incumbents, inevitably hindering private investment. The existence of these sub-sectoral-level restrictions undermines the effect of the remarkable efforts Kenya has made to improve its position in the Ease of Doing Business rankings. Nonetheless, reforms to improve the establishment (e.g., the starting a business indicator) or operations (e.g., the accessing credit or registering a property indicator) of a business can be undermined at the sectoral level if, in the first instance, the private sector faces restrictions to entry or, when in operation, private sector participants face restrictions on expansion because of regulations that protect incumbents, including SOEs. In a post-COVID environment, when many businesses will need to restart, it will be important that the barriers to entry be lowered and the regulatory environment levelled to enable the most productive businesses to thrive. Table 2 summarizes some areas of restrictions observed in the recent Country Private Sector Diagnostic.[23]

Table 2. Sector-specific competition restrictions

Sector	Subsector	Competition restrictions
Agriculture	Staple grains	Burdensome regulations and government intervention prevent equal access. Import licenses, quotas and tariffs, influence through the National Cereal and Produce Board in the maize sector, and information exchange among competitors distort the value chain.
	Pyrethrum	Incomplete regulatory framework prevents effective entry of private processors and protects Pyrethrum Processing Company of Kenya—an SOE.
	Tea	Unreasonably high regulatory requirements affect entry and prevent equal access, including minimum hectarage requirements and restrictions on where factories source leaves.
	Sugar	Nontariff barriers (quotas, mandatory import permits, inefficient SOEs) restrict open entry.
	Seeds	Government interventions affect entry and prevent equal access of SOEs and private companies.
Electronic communications	Telecom	Lack of transparent regulatory framework for pro-competitive spectrum allocation affects entry and prevents equal access for potential providers of broadband services.
	Mobile payment systems	Limited interoperability between mobile payment operators and neutral access to clearinghouses limits ability of smaller players to grow.
Electricity	Generation	There are concerns about regulatory neutrality given government participation and delays in the implementation of an open market for large electricity consumers.
Professional services	Legal and architectural services	Mandatory minimum prices and restrictions on participation by foreigners, advertising, and partnerships across professions limit entry and business strategy options and increase costs of services for businesses.
Insurance	Insurance and brokerage services	Restrictions on foreign equity participation, regulation of insurance premiums, and information-sharing practices facilitate collusion and increase costs for business.
Air transport	Passenger transportation	There are regulatory issues related to licensing of new players, ownership restrictions even within the East African Community common market, and underdeveloped framework of slot allocation.
Construction	Inputs	Restrictive trade rules (tariffs, quotas, permits) on inputs such as steel and wood products result in high prices for developers.

23 IFC (2019).

The large presence of legacy SOEs is an important constraint on productivity growth. Kenyan businesses face high levels of government intervention in areas where the private sector has a significant presence and where government service provision should therefore be unnecessary. Businesses face immense regulatory requirements for entering new markets, and Kenya lacks effective rules to facilitate entry, contestability, and effective domestic competition, a situation that has dampened investment. Direct competition from SOEs, links between competing firms through partial government shareholding, and a lack of competitive neutrality given limited de facto separation of regulatory and commercial activities in sectors such as electricity, air transport, telecommunications, and agriculture are still crowding out the private sector (particularly new investors) (box 5).

The interlinkages between government and business affect development outcomes. Although the constitution and the

Box 5. Productivity gains and fiscal savings from reforms to state-owned enterprises

The large presence of state-owned enterprises (SOEs) in sectors where private participation is viable is a hindrance to competition and productivity growth. Kenya scores higher than the OECD average and other middle-income countries on degree of state intervention (figure B5.1). The country registers SOEs in at least 17.0 sectors compared with an average of 15.4 in OECD countries, including in sectors where there is active private sector participation such as retail, accommodations, manufacturing, banking, insurance, and agri-processing. In enabling sectors that provide essential inputs to the rest of the economy (electricity, transport, finance, telecommunications, education) and where natural monopolies and SOEs are important, effectiveness in achieving policy goals in terms of affordability and access to quality services is limited, affecting costs for enterprises in traded sectors. SOEs also place a significant burden on fiscal accounts, running deficits particularly in agriculture, health, and communications and with debt—particularly for railways and electricity—amounting to 7 percent of GDP in 2016.

Figure B5.1. Economy-wide product market regulation score

Source: OECD PMR database and OECD-World Bank Group PMR database.
Note: The Product Market Regulation indicators database measures the degree to which policies promote or inhibit competition in areas of the product market in which competition is viable. The scale is from 0 to 6, from least to most restrictive of competition.

Mechanisms to hold SOEs accountable for their output are weak. SOEs are the primary vehicle for overseeing, delivering, and implementing large-scale projects and services, although their governance and administrative arrangements often do not support efficient discharge of these responsibilities. SOEs fall outside the standard budgeting, financial reporting, and performance management protocols of the government (line ministries). Appointments to leadership positions in certain instances reflect political patronage, as opposed to merit-based appointment. Efforts to merge parastatals in crucial sectors and to integrate related laws, among others, have had limited success (e.g., reforms in the agriculture sector). The delay in transfer of SOEs to counties has meant that the national government retains a share of budget allocations intended for financing those SOEs (even when it is clear that they are performing county government functions), which has created overlaps in funding for similar activities between national and county governments.

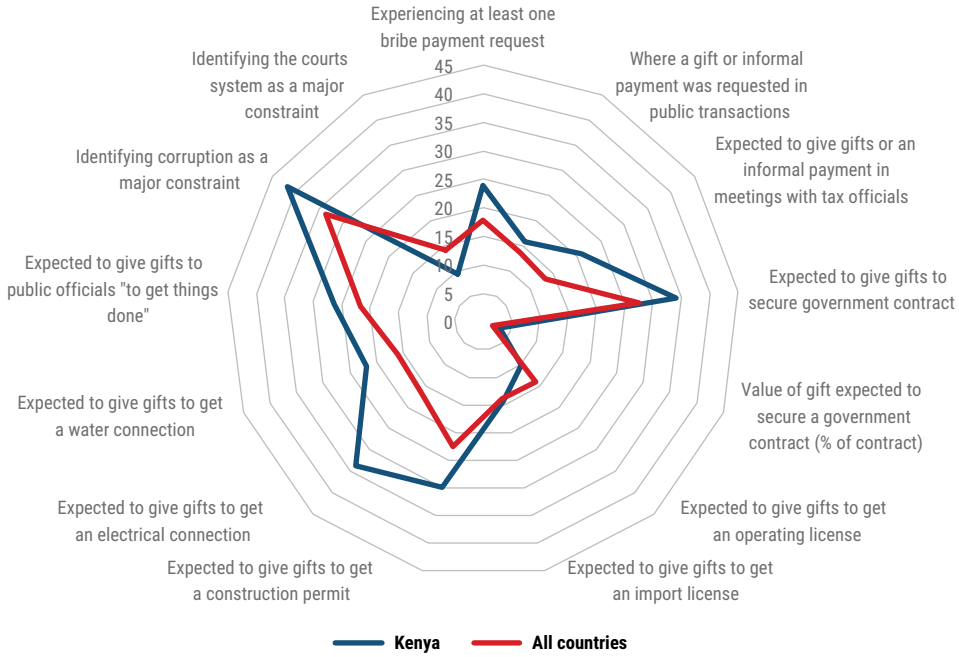
enabling legal framework prohibit government officials from drawing income from sources other than remuneration for their state jobs, some government officials have large private sector interests and influence public procurement and government priorities through proxy companies. This has systematically undermined the accountability relationships between the legislative and executive arms of the government. Government domination of certain subsectors (e.g., agriculture) has crowded out the private sector and made access to inputs erratic, overly bureaucratic, and vulnerable to rent seeking.

Corruption is a significant problem for businesses, because it hinders productivity and undercuts the potential impact of other structural reform efforts. The recent World Bank Enterprise Survey showed that, in almost every dimension of corruption involving business interactions with public officials, Kenya ranks worse than average (figure 23). Furthermore, the interlinkages between politics and business harm the business environment. For instance, even though the constitution and enabling legal framework prohibit it, prominent government officials and politicians have large private sector interests and continue to use their positions to influence public procurement and business regulation decisions. Corruption increases transaction costs for businesses and, perhaps more significantly, deters potentially more productive new entrants from entering the Kenyan market because they recognize that the game is rigged in favor of those willing to pay bribes or who are more politically connected.[24] Ongoing efforts to combat corruption are commendable and should improve the operating environment for firms and farms. One study found that, were Kenya to reduce its corruption to the level of Ghana (i.e., by one-fifth of a standard deviation), it would improve the average input- and output-oriented efficiencies of Kenyan manufacturers by 3 to 4 percentage points.[25] It must be ensured that private interests do not compromise decisions of public officers, as this decreases public confidence in service delivery.

Governance challenges are not restricted to the public sector; corporate governance practices have emerged as a concern. In the recent past, several privately owned enterprises, including large supermarket chains and banks, have gone bankrupt because of weak corporate governance. In some instances, weak accountability mechanisms allowed powerful corporate elites to misuse their clients' funds or those of minority shareholder investors. Because some of these institutions were large formal sector employers of systemic importance, this has had spillover effects on related businesses; led to the loss of important skilled jobs; dampened confidence; and in the case of the banking sector, subdued private sector credit growth.

Access to affordable, appropriate finance is a major challenge for MSMEs in Kenya. Although removal of caps on interest rates has increased availability of credit to the private sector, current levels (9.0 percent year-on-year growth in April 2020) remain well below the 10-year average of 19 percent. The interest rate cap introduced

Figure 23. Kenya underperforms most countries in many dimensions of corruption



Source: World Bank Enterprise Survey; https://www.enterprisesurveys.org/

24 This is consistent with the observation that productivity growth from reallocation of resources and dynamic entry and exit in Kenya has been much lower than in most countries.

25 Faruq, Webb, and Yi (2013).

in 2016 hit MSMEs the hardest because commercial banks, no longer able to implement risk-based pricing, shifted their lending away from borrower segments considered to be riskier. Not surprisingly, although large blue chip Kenyan companies are able to access finance, start-ups and high-growth SMEs struggle to access growth-oriented financing and risk capital. In part reflecting an environment that is more risk averse toward MSMEs, MSME lending as a share of total lending from banks declined from 23.4 percent in 2013 to 15.8 percent in 2018. Reflecting these challenges, a recent survey showed that some 71.9 percent of MSME sources of capital were the owners' resources, compared with 5.6 percent from banks. Given the importance of MSMEs as the main employer (80 percent of the workforce) and a significant contributor to GDP (33.8 percent), MSMEs must be supported in accessing finance.

The COVID-19 pandemic has heightened the need to address the finance challenges facing MSMEs. There is an increase in risk averseness in lending to MSMEs as a result of the present economic crisis, in Kenya and elsewhere. Furthermore, given the liquidity challenges firms face, if their credit needs are not soon met, many firms could be forced to close, undermining the potential productive capacity of the economy. A recent study simulating a scenario of extreme economic stress found that median survival time across industries ranged from 8 weeks to 19 weeks, whereas on average, firms have sufficient liquidity to survive from 12 weeks to 38 weeks.[26]

Kenya's MSMEs are not only constrained by challenges stemming from access to finance but also from the overall ecosystem. In addition to access to affordable and appropriate finance, access to markets, firm capabilities, technology adoption, and innovation absorption are a major challenge for Kenyan MSMEs. The 2018 Enterprise Survey in Kenya and consultations with firms under the Kenya Digital Economy for Africa diagnostic identified cumbersome business license and permit processes and perceived high tax rates as major constraints. In addition, the current regulatory environment, information asymmetry, and the institutional framework render the ecosystem inconducive to effective, efficient support of entrepreneurs and MSMEs. Kenya is experiencing lagging productivity. SMEs have difficulties increasing their productivity because of poor managerial practices, limited technology adoption, and information failures regarding how to upgrade.

Although Kenya is more peaceful than several of its neighbors, violence and insecurity are a concern for businesses. Kenya has a complex picture of violence, which takes various forms, including militia activity and criminality in urban areas, communal violence in the Rift Valley and elsewhere, and the confluence of separatism and Islamist mobilization in the Coast province. For enterprises in urban areas, instability affects business by increasing security costs. For enterprises in the northwest, where livestock rearing is the dominant economic activity, cattle rustling is a deterrent to greater investment. Insecurity stemming from violent extremism and instability spilling over from Somalia also impede establishment of enterprises in the northeast. The northwest and northeast are among the poorest, least-developed regions in Kenya. Improving security in these areas will be good for overall investment and growth, with potentially significant reduction of poverty.

2.3.3. Challenges in human capital development and better development outcomes for women

Investments in human capital will be critical to boost productivity, sustain robust growth, and reduce poverty. Accelerating growth and boosting productivity require countries to invest in assets that will generate income in the future.[27] Investments in human capital boost the current and future capacity of the workforce and help reduce a country's dependence on other forms of capital, notably nonrenewable natural resources. Conversely, poor child health, chronic malnutrition, and lack of proper stimulation impede development of children's physical and cognitive capacity and can reduce lifelong income by up to 50 percent.[28]

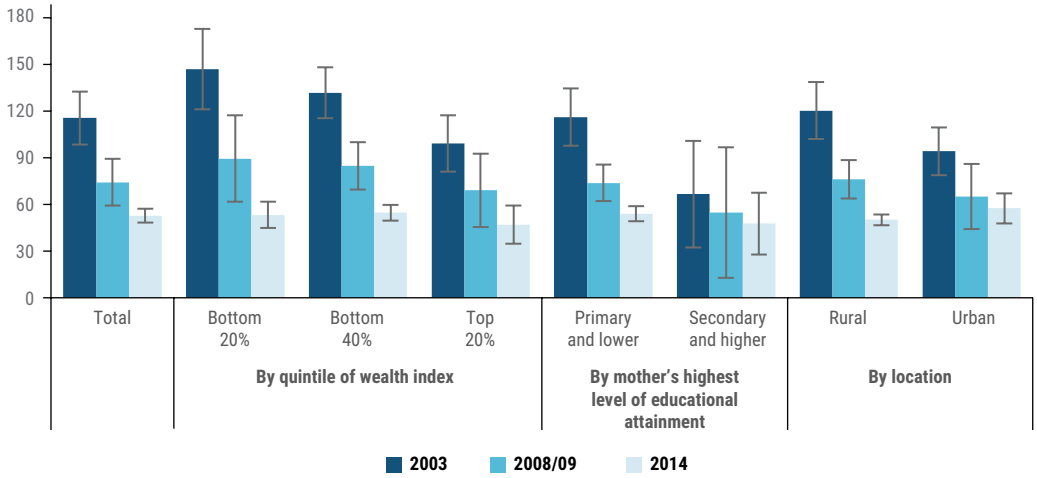
Despite progress, poor health outcomes are contributing to a loss of nearly half of Kenya's human capital.

Health indicators have improved significantly in Kenya in recent years. Mortality in children under the age of five declined from 114.6 deaths per 1,000 live births in 2003 to 52 in 2014 (figure 24), and the child stunting rate has dropped to one of the lowest levels in the region, falling from 35.6 percent in 2003 to less than 26 percent in 2014.[29] The expansion of low-cost, highly effective technologies (e.g., mosquito nets), along with a decline in fertility (from 4.6 children per woman in 2009 to 3.9 children in 2014), have improved health outcomes. Life expectancy also significantly increased (by six years) over the same period.

Despite these important gains, crucial health outcomes are a challenge. Rates of premature death of adults are high, with 14 percent of women and 18 percent of men dying

26 Bosio and Ramalho (2020).
27 Lange, Woden, and Carey (2018).
28 World Bank (2018).
29 Government of Kenya (2015).

Figure 24. Under-five mortality rate (deaths per 1,000 live births) by quintile, mother's educational attainment, and location, 2003–2014



Source: Pape and Mejia-Mantilla (2018).

between the ages of 15 and 50;[30] 14 percent of deaths of women in that age group are due to complications in childbirth, and maternal mortality is very high, at 362 per 100,000 live births.[31] Neonatal mortality in 2014 was 22 per 1,000 live births, and under-5 mortality was 52 per 1,000 live births. Of those surviving, more than one in four children under 5 were stunted.[32] Although the adolescent birth rate in Kenya is lower than the regional average for east and southern Africa (80.5 versus 92 births per 1,000 girls under the age of 18), early pregnancy remains a significant health challenge. Early pregnancy is associated with higher risk of maternal mortality and complications during childbirth, as well as being a major factor in girls dropping out of secondary school.[33]

Climate-related threats to health will continue to escalate, compounding these challenges. Approximately 13 million to 20 million Kenyans are at risk of malaria, and the risk of malaria and other vector-borne diseases is projected to increase as climate change facilitates the movement of malaria transmission up the highlands. The number of Kenyans at risk could increase to 89 percent by 2050.[34]

Poor health outcomes contribute to a loss of nearly half of Kenya's human capital. The World Bank Human Capital Index (HCI) seeks to measure in absolute terms productivity lost because of inadequate investment in education and health care. According to this metric, a child born today in Kenya will be only 52 percent as productive throughout her lifetime as would have been possible had she had access to a complete, quality education and lived in optimal health.[35] Despite having a low HCI in absolute terms, Kenya performs better than the average of other countries in the region (40 percent) and in its income group (less than 50 percent). Because Kenya performs relatively well in education, health outcomes are the main force reducing its HCI ranking, including not only the cost of medical treatment itself, but also labor absenteeism, chronic disability, and premature death.

Although enrollment rates in Kenya are high, learning outcomes are low.

Although Kenya's education results are relatively high on HCI measurements, learning outcomes are low in basic education, and there are wide regional disparities. For 2017, Kenyan children were on average expected to complete 10.7 years of schooling, compared with 7.8 for Tanzania and 6.5 for Rwanda. Despite this impressive result, when adjusted for learning outcomes, Kenya's children can expect to attain the equivalent of only 7.8 years of schooling (4.8 for Tanzania, 3.7 for Rwanda). The 2014 Monitoring Learner Achievement assessment at Form 2 (equivalent of grade 10) found that almost 90 percent of students did not reach minimum competency in algebra and geometry and that approximately 30 percent did not reach minimum competency in measurement, numbers, and statistics.

Although assessments of education systems often focus on enrollment and attainment, what matters for long-run prosperity are

30 Government of Kenya (2015).
31 Ibid.
32 Ibid.
33 Pape and Mejia-Mantilla (2018).
34 Government of Kenya (2018).
35 World Bank (2018).

a population's cognitive skills, and what matters for immediate productivity is the level of skills of the adult population.[36] Weak learning outcomes can have a substantial effect on skills and productivity into adulthood; 65 percent of workers in Kenya performed at level 1 or below on the Skills Toward Employment and Productivity (STEP) reading proficiency test, indicating rudimentary reading skills.[37] Almost 60 percent of 19- to 20-year-olds with an upper secondary education scored below the basic literacy level, compared with 40 percent in Ghana and 3 percent in Vietnam.[38] This represents a huge challenge for productivity because almost 1 million youth enter the workforce every year and need support to build their human capital at work. An analysis of the STEP employer survey shows that Kenyan firms face skills gaps,[39] which are likely to increase given that the skills and task content of jobs are likely to change more often with accelerating technological change. Because proliferation of skills in the workforce will be essential for increasing productivity and growth, Kenya will need to address this weakness in learning outcomes not only during education, but also for the millions of adults, especially youth, whose skills shortages affect productivity.

A number of foundational and emerging governance constraints limit human capital development and are particularly apparent in the health care and education sectors. The devolution of the health care sector has helped address the challenge of regional disparities in access to quality services, but conflicts over roles and responsibilities between national and county governments have emerged. For example, responsibility for procuring and administering vaccines is unclear, which could lead to the reemergence of communicable diseases. Persistent labor disputes (between both levels of government and county medical personnel) and absenteeism have also denied people access to health services. Lack of transparency and unreliability of funding to the sector has also hampered delivery of health care services. Little information is available regarding transfer of funds from the Ministry of Health, National Health Insurance Fund, and county health facilities. Development partner support has been an important source of financing in the health care sector, especially funding of vertical and intervention-based programs, although the architecture required to transfer those funds (e.g., conditional grants) within a devolved government structure is still lacking.

Whereas education is only partially devolved,[40] the same governance constraints apply. Although national government policies and plans are well developed, they have not been well executed, and coordination is weak. Overlapping mandates and a "silos" approach to policies limits their effective implementation and the enforcement of standards. The new institutional arrangement has resulted in conflicts over roles and responsibilities. These conflicts have spilled over to affect services, for example with the interruption of teaching due to recurrent labor disputes between teachers and the national government. The intermittent disbursement of funds by the national government and changes in policy leaders and staff have interrupted implementation of sector policies. Limited reporting on government and nongovernment spending also affects the sector. The various systems established in the sector do not capture data that would increase accountability and assist in making strategic decisions. For example, the National Integrated Education Management Information System and the Technical and Vocational Education and Training Management Information System do not capture data on use of on- and off-budget finances. There is a lack of accountability of schools to communities because schools do not provide adequate financial and nonfinancial information to the public. Other than requirements for head teachers to display funds received on public notice boards, no information is shared about how resources are allocated and subsequently spent. The school audit directorate audits schools, but the directorate is insufficiently staffed to support this function.

Access to safely managed water, sanitation, and hygiene (WASH) services is a major impediment to development of human capital. Overall service coverage as of 2017 was approximately 62 percent for water and 51 percent for sanitation. Approximately 10 percent of Kenyans practice open defecation. Kenya's Ministry of Health estimates that 75 percent of the country's disease burden can be attributed to inadequate sanitation practices and unsafe drinking water. A cholera outbreak that lasted from 2014 to 2016 affected 16,840 people in 30 counties and killed 256.[41] It is likely that poor access to WASH services is creating a drag on the Kenyan economy by reducing human capital through premature death, reduced working hours and productivity while ill, and the cost of medical treatment. Poor sanitation is also linked to childhood stunting, which can affect educational attainment and long-term productivity.

2.3.4 Constraints on productivity from inadequacy of physical capital

36 Hanushek and Woessmann (2015).
37 World Bank. (2013a).
38 World Bank (2019e).
39 Sánchez Puerta, de Silva, and Rizvi (2018).
40 The national government is responsible for the provision of education from the primary level, and the county governments are responsible for early childhood education and village polytechnics.
41 UNICEF (2016).

Transport infrastructure is critical to boosting productivity. Low-quality road networks raise logistical and transaction costs, which reduce market access and the mobility of factors of production, all of which have a detrimental impact on firm and farm productivity and competitiveness.[42] Improved road networks can influence the entry decision and entry size of firms.[43] After years of underinvestment, there have been significant improvements to infrastructure in recent years, including the road network, railways, and an airport expansion. Nonetheless, significant challenges remain, impeding the operating environment and hindering productivity. For one, only 44 percent of the road network is in good or fair condition. In addition, the urban transportation system is increasingly experiencing significant traffic congestion, which limits productivity and economic growth. For instance, in Nairobi, the economic nerve center, it is estimated that the value of time lost to travel is approximately $4 million per workday.[44] Finally, inefficient urban transportation infrastructure has led to high transportation costs, accounting for some 30 percent of household incomes in remote suburbs.

Electricity access has been significantly expanded in recent years, yet almost half of Kenya's population still lacks access to grid electricity. Power generation in the country increased from 1,768 MW in 2013 to 2,712 MW as of February 2019, with access to electricity relatively high at 75 percent.[45] Access to grid electricity however, is only 53.5 percent, while the remaining 21.5 percent of the population only has access to basic lighting using off-grid solutions. Furthermore, access to grid electricity in the 14 underserved counties in Kenya is only 20.9 percent,[46] highlighting significant geographic disparity in access. Grid electricity is fundamental for economic transformation and boosting productivity, and access to energy raises the ability of poorer households to allocate their resources for market production, especially among women in rural areas.[47] Despite impressive growth in connection in recent years, inadequate investment in the transmission and distribution network is affecting the availability, quality, and cost of electricity. Inadequacies in the transmission grid have prevented the country from accessing cheaper electricity generated elsewhere. Geothermal energy, which is the least-cost base-load renewable energy resource, generated at Olkaria fields, cannot be transmitted to the Western, North Rift, and South Rift parts of Kenya because of lack of transmission capacity. This has led to the use of costly alternatives (oil-fired plants, gas turbines) and higher electricity costs in Kenya. Electricity costs in Kenya were $0.22/kWh in 2015, compared to $0.16/kWh in Uganda, $0.11/kWh in South Africa or $0.17/KWh in Ethiopia. Not surprisingly, firms in Kenya often cite the high cost of electricity as a factor contributing to a high-cost operating environment. Beyond high costs, the lack of adequate investments in the transmission and distribution network has led to overloaded lines, with frequent system breakdowns and supply interruptions, which hinders productivity.[48]

Kenya's information and communications technology (ICT) sector is one of the most dynamic in Sub-Saharan Africa, but more needs to be done to increase broadband access. Major gains in communication are evident in the significant increase in the penetration rate for mobile subscriptions, currently 91.9 percent. Some 70.5 percent of households in Kenya have mobile money subscriptions, one of the highest rates globally. Despite progress, access to broadband Internet is limited, and costs are high, limiting the broader effect that ICT can have on enhancing productivity. Only 46 percent of citizens had access to broadband connectivity at the end of 2018,[49] and it is prohibitively expensive in many communities outside of Nairobi and Mombasa because of the dominance of Safaricom and the absence of infrastructure-sharing regulations. Despite investments through the National Optical Fiber Broadband Infrastructure, a digital divide remains in which broadband has not reached most parts of rural Kenya and last-mile connectivity is a challenge.

Demographic trends and urbanization will continue to put pressure on water and sanitary infrastructure, which if not addressed will challenge productivity growth. Labor productivity is generally higher in urban than in rural areas, and urbanization has historically been strongly correlated with economic growth. However, Kenya's urban infrastructure development is not keeping pace with demand. Water demand exceeds supply by more than 150,000 cubic meters per day in Nairobi and 100,000 cubic meters per day in Mombasa. Only approximately 18 percent of the total urban population has access to a sewer system, with 70 percent relying on septic tanks and pit latrines and the rest having no access to sanitation services at all. In addition, existing wastewater treatment systems operate at very low efficiencies (about 16 percent of design capacity for 15 plants assessed in 2010), leading to the discharge of untreated effluents. No urban area in the country has a properly engineered sanitary landfill, and most solid waste is dumped in open dump sites or other undesignated areas or burned.

42 Escribano, Guasch, and Pena (2010).
43 Shiferaw et al. (2015).
44 World Bank (2016a).
45 Data from the 2019 Multi-tier Framework (MTF) survey report of the Energy Sector Management Assistance Program.
46 Ibid.
47 Dinkelman (2011); Khandker (1996); Roddis (2000).
48 Reinikka and Svensson (1999); Ackah, Asuming, and Abudu (2018).
49 Kenya Communications Authority.

2.3.5. Constraints on productivity from inadequacy of use of natural capital

The economic literature shows that renewable natural resources are a unique asset that, if managed sustainably, can produce benefits in perpetuity, in contrast to nonrenewable resources. For countries like Kenya that depend greatly on renewable assets, maintaining or increasing the productivity of these natural resources and managing them sustainably is critical for long-term growth.

Misallocation of land and inefficiencies in land markets decrease productivity. Land is one of Kenya's most important natural capital assets, but a dearth of information, numerous restrictive laws, bureaucratic inefficiencies, political interference, speculation on land prices, insecure and unclear land tenure arrangements, and lack of innovative market mechanisms impede land market efficiency.[50] Investors hesitate to buy land for productive purposes because of the opacity of records and the risks related to corruption in the land administration and registration process. Only a fraction of land transactions are documented, and given the weak state of the formal system, many people turn to informal land markets, creating additional tenure insecurity.[51] Absence of a properly functioning land market also significantly limits development projects, with the cost of land often consuming a disproportionate share of a government project budget in cases in which many homes and businesses must be displaced.

Appropriate development and management of Kenya's scarce water resources will be critical if the country is to meet its growth targets. Kenya faces major challenges in physical water scarcity (insufficient water availability with great geographic and temporal variability) and economic water scarcity (lack of development and management infrastructure). Kenya has annual renewable freshwater resources per capita of only 526 m^3 (with 54 percent in transboundary basins),[52] well below the accepted "water poor" threshold of 1,000 m^3 per capita per year. With rapid population growth, this number is expected to decrease even further. Despite these pressing needs, less than 15 percent of the nation's water resources have been developed so far because of inadequate investment in water infrastructure. Insufficient access to water is a binding constraint on economic growth and is reflected in the large gaps in achieving the sustainable development goals (SDGs). Ninety-eight percent of Kenya's arable land is rainfed, and only 13 percent of the identified irrigation potential has been developed. One-third of the population lacks access to safe water and two-thirds to improved sanitation services. Major economic hubs such as Nairobi and Mombasa are on water rationing annually. It is estimated that Kenya could face a 31 percent gap between water demand and a practically available water supply by 2030.[53] This inadequacy of water resource development and management of water and sanitation services is having an enormous impact on the economy, human capital development, and the environment. For example, the estimated economic costs of poor sanitation are $324 million per year.[54]

Lack of water storage capacity and water management infrastructure leaves Kenya's population vulnerable to frequent climate shocks. The country's high climatic and hydrologic variability, compounded by widespread catchment degradation, results in frequent droughts and floods. Furthermore, long-term climate projections show a trend toward more extreme weather patterns that will exacerbate climate risks and water constraints.[55] The climate vulnerability of the economy and society is to a large extent attributable to inadequate water infrastructure investment and coverage of different water services. Water storage capacity in Kenya is low, at little more than 100 m^3 per person, compared with 700 m^3 per person in South Africa. Such low storage capacity can provide only limited regulation of the highly variable river flows in most rivers, making water supplies unreliable.[56] Globally, there appears to be a relationship between a country's Human Development Index (HDI) and per capita water storage, with countries with high HDIs (greater than 0.85) tending to have 2,500 m^3 to 3,000 m^3 of storage per capita.[57] Kenya's low (according to global standards) HDI of 0.579 confirms this relationship, underlining a link between vulnerability to climate risk and human development. Hydrological variability limits economic and human development. Economic growth will require investing in strategic water storage and water management infrastructure (including irrigation) to address hydrological variability and improve climate resilience.

There is an urgent need to address the decline in Kenya's wildlife biomass. Nature-based tourism has done much to shape the development fortunes of Kenya and is deeply integrated into the economy. Tourism is one of the main sources of foreign exchange (and hence a contributor

50 The National Land Commission (2019) Report identifies complex, bureaucratic processes associated with land acquisition (e.g., requirement for Land Control Board consent for agricultural land), disagreements over compulsory acquisition, cancellation of titles over irregular ownership, legislative barriers, and institutional conflicts between the National Land Commission and the Ministry of Lands as critical governance constraints.
51 World Bank (2016a).
52 Ministry of Environment, Water and Natural Resources (2013).
53 Water Resources Group (2015).
54 World Bank (2015a).
55 World Bank (2013b).
56 Ibid.
57 Ibid.

to the shilling's stability) and has important backward and forward linkages to many parts of the economy. However, wildlife populations are in decline, with a loss of some 60 percent of wildlife biomass over the past three decades.[58] Reasons for this decline include interconnected pressures typically linked to habitat conversion—factors such as population growth, expansion of arable agriculture, fencing, poaching, and intrusive infrastructure. The recent World Bank report, *When Good Conservation Becomes Good Economics*,[59] finds that construction of new roads has caused and accelerated much of this loss. This trade-off is especially important in the northern part of Kenya, where there are few economic opportunities. A recent study showed that every dollar invested in conservation and wildlife tourism could generate benefits ranging from $3 to $20. However, as Kenya's population grows and climate change makes rainfall more erratic, infrastructure needs will expand and pressures on wildlife and natural habitats will intensify and spread throughout the country. There is thus an urgent need to change course to reverse the decline in Kenya's wildlife.

The newly discovered petroleum reserves, which are a nonrenewable resource, will need to be well managed to support sustainable development. Kenya joined the league of oil exporters in 2019 on a test basis, exporting its first truckload of crude petroleum. The oil was produced in the South Lokichar Basin in Turkana from a deposit discovered in 2012. Kenya's commercially recoverable oil deposits are limited and are estimated at approximately 560 million barrels, a number that has been lowered from previous estimates of 1.3 billion barrels. An 870-km pipeline is expected to be constructed from Turkana

Box 6. Effect of COVID-19 pandemic on Kenya's water services providers

Provision of safe, uninterrupted water services is critical to the COVID-19 pandemic response, yet Kenya's public water service providers often struggle to provide a reliable water supply to the 13 million people they serve. Worse, the pandemic is placing enormous financial constraints on providers. The additional pressure stems from lower revenues (collections are becoming increasingly difficult for many providers as their customers lose their livelihoods because of the pandemic), increased costs (particularly for labor and inputs such as chemicals), and the need to expand services quickly, particularly in low-income communities. In March 2020, the government issued directives to all water service providers to provide free water to informal settlements and vulnerable groups and to suspend water disconnections. These measures, although intended to prevent the spread of the virus, have harmed the financial situation of water service providers. Data collected from 71 of the 88 providers in Kenya show that revenues dropped 40 percent between February and May 2020, and the situation is likely to deteriorate in the coming months (figure B6.1).

Figure B6.1. Cash flow projections (data from 71 water service providers)

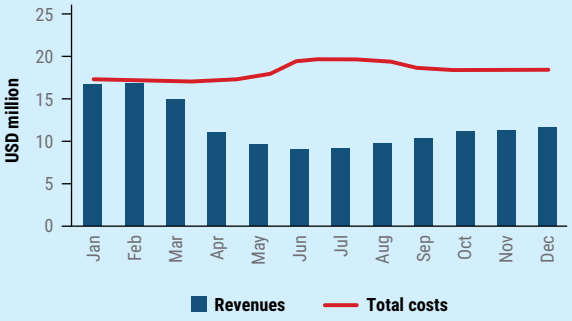
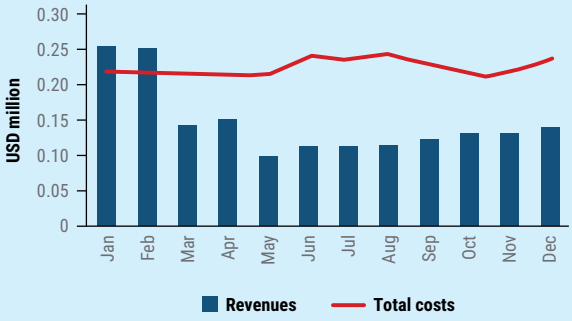


Figure B6.2. Cash flow projection for Nanyuki water service provider



Water service providers that depend on large commercial consumers (e.g., flower farms, hotels) are the most affected, because many of the commercial establishments have closed or shrunk operations (e.g., Nanyuki Water Service Provider, figure B6.2). If this fall in revenue continues, 13 million Kenyans will face the risk of service disruptions caused by providers' inability to cover operation and maintenance costs, such as chemicals for water treatment, staff wages, electricity, and spare parts. Moreover, the crisis may have lasting effects on the financial sustainability of providers and thus amplify existing access and service gaps. The Government of Kenya is considering providing short-term liquidity support to water service providers while at the same time addressing longstanding water service provider financial performance challenges.

58 World Bank (2019d).
59 Ibid.

to Lamu to aid in the transport of oil, but this is still several years away, so peak oil production is unlikely to occur in the short to medium term. Nonetheless, given the nonrenewable nature of the resource, the Government of Kenya needs to decide on a few critical matters, including how policy makers should allocate the additional resources, how much of the revenue should be saved, and what institutional mechanisms need to be adopted. Under the petroleum bill, the central government receives 75 percent of oil proceeds, county governments receive 20 percent, and Turkana County receives 5 percent.

2.3.6. Constraints on productivity and growth due to climate change

Kenya's climate has changed and is still changing. Surface temperatures across Africa have increased by 0.5°C to 2°C over the past 100 years. Higher temperatures have been observed in all seasons but particularly from March to May. Rainfall patterns have also changed. The long rainy season has become shorter and drier, and the short rainy season has become longer and wetter, with overall annual rainfall being low. During this century, temperatures in the African continent are likely to rise more quickly than in other land areas, particularly in more arid regions.[60]

Climate change has already imposed constraints on Kenya's economy, and these impacts will intensify in the coming decades. Climate change will reduce crop and livestock production, as well as that of coastal fisheries, lowering aggregate growth and productivity. Threats to the livelihoods of rural populations will strain the social fabric, making inclusiveness more challenging and ultimately endangering the sustainability of growth. The Notre Dame Global Adaptation Initiative (ND-GAIN) ranked Kenya 152 out of 192 countries for readiness to adapt to climate change. Without proper consideration, the damage from climate extremes and changing weather patterns could undermine major planning initiatives, such as Kenya's Vision 2030 and the Big Four agenda.

Climate change and catastrophic weather events have disastrous consequences for lives and livelihoods. The increased frequency of extreme weather events has accentuated the damage from changing temperature regimes and rainfall patterns in Kenya. Floods often lead to an upsurge in mosquito-borne diseases, as well as cholera outbreaks, because of the mixing of wastewater and drinking water. Forty-three flood disasters were recorded in Kenya between 1990 and 2015, with each event affecting 68,000 people on average. Droughts can destroy livelihoods and erode the ability of communities to cope with difficult economic circumstances. In Kenya, each drought event affects an average of 4.8 million people. The droughts of 2014 to 2018 had an enormous effect on agricultural production; in 2017 alone, 3.4 million Kenyans were classified as food insecure and in need of humanitarian assistance.[61] It is estimated that the economic cost of floods and droughts creates a long-term fiscal liability of 2 percent to 2.8 percent of GDP each year.[62]

There is increasing evidence that climate change could severely limit economic growth and reverse development gains. Climate change also threatens to make economic growth less predictable and less stable, as demonstrated by the increasing uncertainty in rainfall patterns and shifts in seasonality that are already decreasing agriculture productivity. On the upper end, recent modeling for Kenya places the reduction in GDP growth at approximately 2.3 percentage points with current warming, doubling to 4.7 percent with 2°C warming (as early as 2030).[63] Some estimates place future GDP losses considerably higher. Other studies suggest that the effect of numerous climate-related factors is underestimated, including water resources, transportation, migration, violent conflict, and energy supply.[64] Proactive, anticipatory strategies to consider the effects of a changing climate on economies and engines of growth must be holistic and use a range of policy and action-oriented solutions to get ahead of the curve.

Rural livelihoods are particularly at risk from climate change. The climate-sensitive nature of rural livelihoods and the dependence of the rural economy on climate-sensitive sectors, combined with vulnerabilities of crucial geographic areas, indicate that climate is a powerful economic binding constraint. Climate change will reduce crop and livestock production and affect coastal fisheries, resulting in lower aggregate growth and productivity. The effects on rural populations through their livelihoods (in multiple counties but especially the poorest and most impoverished in the north and northeast) and undermining the social fabric will challenge inclusiveness and ultimately the sustainability of growth.

Kenya's Arid and Semi-Arid Lands (ASALs) are particularly vulnerable to the long-term effect of climate change. More than 80 percent of Kenya's land area is classified as arid and semiarid and is considered to be at risk of desertification. People in these areas face greater competition for resources, and populations are increasing in part because of migration from the densely populated

60 United Nations Intergovernmental Panel on Climate Change (2014).
61 Government of Kenya (2017).
62 Mogaka et al. (2005).
63 Abidoye and Odusola (2015).
64 See for example SIPRI, "Climate-Related Security Risks: Towards an Integrated Approach" (2016).

highlands. The economy of the ASAL regions depends on climate-sensitive activities, because these areas support more than 70 percent of the national livestock population and 90 percent of the wildlife that is the mainstay of the country's tourism sector.[65] Rangelands are predominantly located in ASAL regions, and a rapidly increasing livestock population has led to widespread overgrazing. Frequent wildfires largely due to climate change, charcoal burning, and pastoral practices exacerbate rangeland degradation.[66]

Land degradation in Kenya is severe. Kenya is losing 1.1 percent or 50,000 hectares of forest cover annually, and the closed-canopy forest that covered approximately 12 percent of the land area has been reduced to 1.7 percent of its original size.[67] Recent efforts to restore forest cover are reflected in the country's Nationally Determined Contribution goals, which include having 10 percent of the land area under forest cover by 2030.

The vulnerability of Kenya's coastline could have far-reaching economic consequences. An estimated 267,000 Kenyans will be at risk of coastal flooding by 2030 because of sea level rise; an increase of 30 centimeters would be capable of submerging Mombasa and 17 percent of coastal areas.[68] Kenya's coastline boasts the largest seaport in East Africa and supports tourism and fishing industries.[69] Coastal areas are expected to become more vulnerable to sea level rise and coastal erosion, which could compromise important coastal assets such as the port of Mombasa and other infrastructure, including in the transportation and energy sectors.

65 Huho, Ngaira, and Ogindo (2011).
66 Sankaran, Ratnam, and Hanan (2008).
67 Kenya Ministry of Livestock Development (2010).
68 Xinhua (2014).
69 Niang et al. (2014).

3. Critical drivers of inclusiveness in Kenya

3.1 Trends in poverty and shared prosperity

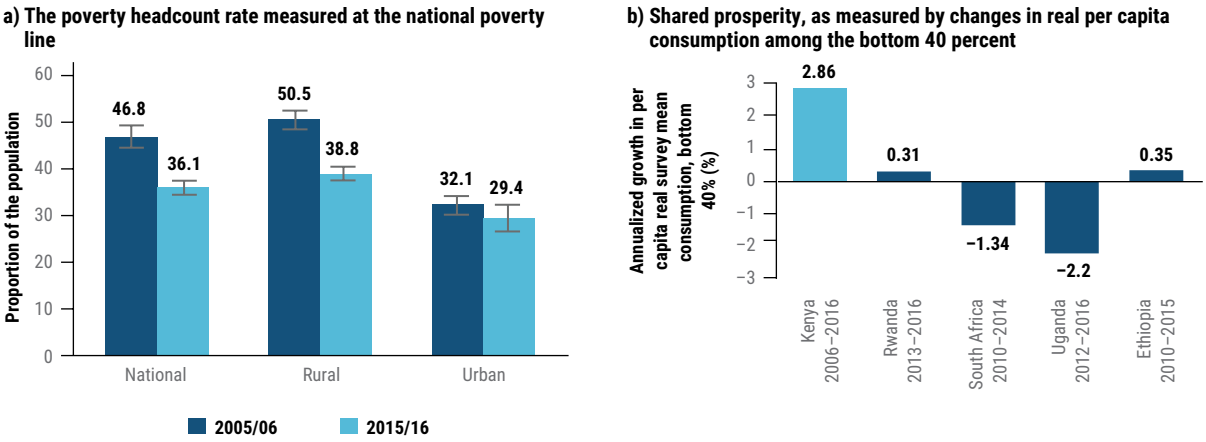
Poverty rates in Kenya declined over the last decade but remain high by the standards of lower-middle-income countries. The share of the population living below the national poverty line[70] fell from 46.8 percent in 2005/06 to 36.1 percent in 2015/16 and was projected to fall to 33.5 percent in 2019, reflecting modest but sustained improvement in living standards over the decade (figure 25a). Because of the agricultural sector's heavy dependence on rainfall, poverty reduction slowed during years of drought. Meanwhile, Kenya's poverty rate with respect to the international poverty line (US$1.90 a day, in 2011 purchasing power parity dollars) also declined, falling from 43.7 percent in 2005/06 to 36.8 percent in 2015/16 and 33.4 percent in 2019, although the COVID-19 pandemic is likely to reverse the trend of poverty reduction (box 7).

From 2005/06 to 2015/16, consumption grew significantly in households in the bottom 40 percent. An important indicator of progress toward the goal of boosting shared prosperity is annualized consumption growth for households in the bottom 40 percent of the consumption distribution. In Kenya, this was 2.9 percent per year from 2005/06 to 2015/16, with especially strong gains in rural households. Moreover, consumption growth in the poorest households of this cohort outpaced growth in the others, with annualized growth rates of approximately 3 percent to 4 percent. Kenya has also been more successful in boosting shared prosperity than its regional peers, albeit measured over a longer timeframe (figure 25b).

Pro-poor growth has caused income inequality to decline. The Gini index fell from 0.45 in 2005/06 to 0.39 in 2015/16, indicating that Kenya made considerable progress in reducing inequality. This decline in inequality primarily reflects overall growth in the national economy rather

70 Kenya's national poverty line is defined as consumption necessary to reach a minimum caloric intake of 2,250 kcal per person per day, including a nonfood allowance. This translates into KES 3,252 per person per month for urban households and KES 5,995 for rural households.

Figure 25. Recent trends in poverty, inequality, and shared prosperity



Source: Pape and Mejia-Mantilla (2018).

than changes in the distribution of resources. Despite improvement in these indicators in recent years, inequality in Kenya remains moderate by regional standards. In addition, the effect of the COVID-19 pandemic may attenuate the decline in inequality or even lead to increases in inequality (box 7).

Improvements in rural areas drove the recent decline in poverty rates. The poverty rate in rural Kenya fell from about 50 percent in 2005/06 to 38.8 percent in 2015/16, reflecting a decline in the rural poor population from 14.3 million to 12.6 million. Meanwhile, poverty rates in urban areas stagnated; the observed 2.7 percentage-point drop in the urban headcount poverty rate is not statistically significant. Importantly, the urban poor population increased over this time, both in absolute terms and as a share of the total poor population. An increase in food prices over the period may

Box 7. Expected distributional effects of COVID-19

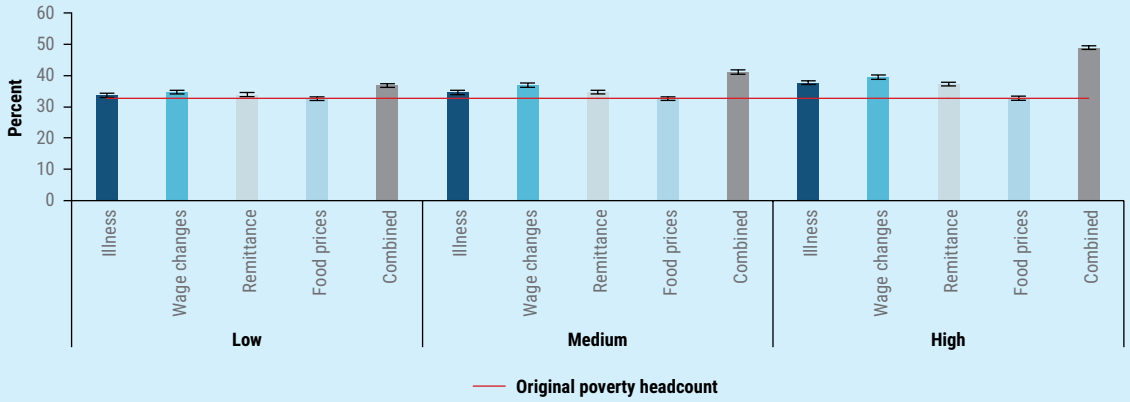
Human capital will be affected, especially in the context of limited health care availability and school closures. With case numbers and hospitalization needs increasing, health care systems are expected to reach capacity quickly, probably resulting in shortages of hospital beds, intensive care beds, medications, and protective gear. Public hospitals are more likely to be exposed to these shortages, especially at the onset of the crisis, so the poor, who cannot afford private health care, will be most affected. The prolonged closure of schools will affect learning outcomes, with long-term effects on human capital, especially for the poorest households and those that rely on school meal programs.

In addition to direct health effects, international and domestic mobility restrictions such as lockdowns can have serious distributional effects. Travel restrictions, especially on international travel, have reduced tourism, creating income shocks for workers in the hospitality and air transportation industries. In addition, severe mobility restrictions in Kenya to reduce COVID-19 transmission are likely to decrease aggregate demand and employment, which would lower wage income. A 30 percent reduction in monthly wage income for individuals in vulnerable sectors would result in a projected poverty headcount of 39 percent, an increase of 7 percentage points.[71] The effect is larger for urban households, which are more likely to rely on wages and earnings from self-employment. For instance, it is estimated that the same size reduction in monthly wage income in urban households would increase urban poverty by 12 percentage points.

The economic effects on other countries also affect Kenya by decreasing remittances. Remittances are under pressure because of damage to the economies where the Kenyan diaspora is working. Kenya recorded remittances of $2.9 billion in 2019 (2.9 percent of GDP). Most remittances come from the United Kingdom (34 percent, in the latest data, 2017) and the United States (30 percent). A decrease in remittances decreases household incomes and pushes vulnerable households into poverty. It is estimated that remittance flows into lower-middle-income countries will fall approximately 20 percent in 2020.[a, 72] Such a reduction in both international and domestic remittances would increase estimated poverty in Kenya by 2 percentage points, with a larger effect on rural poverty (figure B7.1).

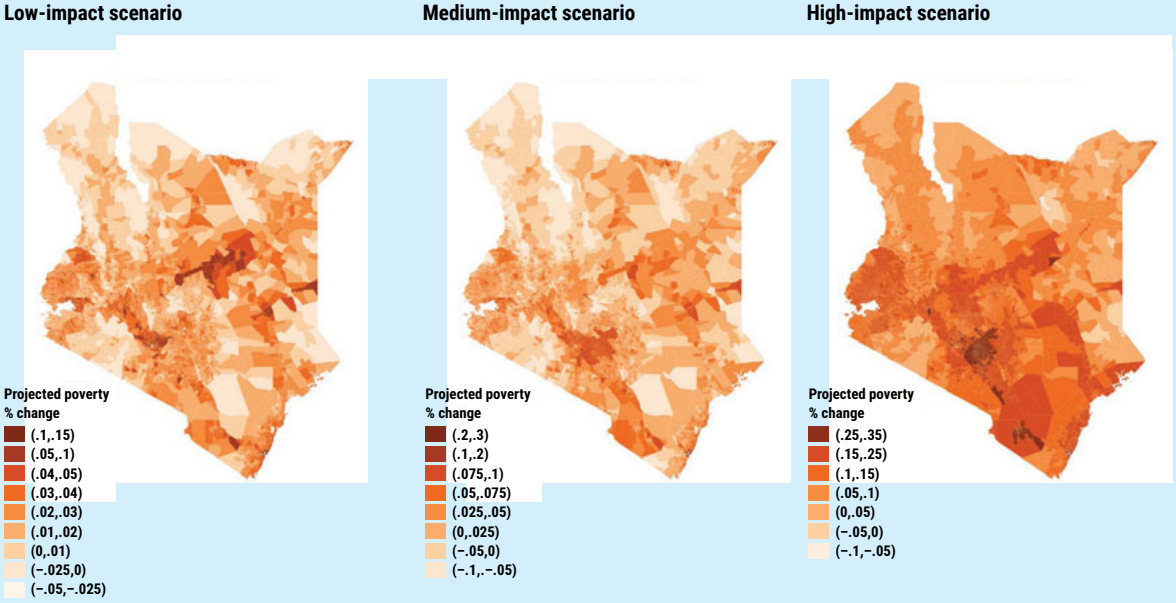
71 Vulnerable sectors are defined as tea, coffee, horticulture, tourism, retail, transport, construction, other services, and light manufacturing.
72 World Bank (2020a).

Figure B7.1. Projected poverty headcount rates by scenario (low impact, medium impact, high impact)



COVID-19 may increase the projected poverty headcount of a given area by up to 16 percentage points, depending on severity. The channels of effects from COVID-19 include loss of income due to illness, changes in wage earnings, reduction in remittances, and increases in food prices of highly import-dependent food items. When combined, these channels may increase the projected poverty headcount by 4 percentage points to 16 percentage points, depending on severity (figure B7.1). The effect is larger on urban households, often equalizing urban and rural poverty rates in the same sublocation. The most-affected sublocations tend to be in Nairobi and surrounding counties (figure B7.2).

Figure B7.2. Projected poverty change by sublocation



[a]*World Bank (2020a).*

have contributed to these trends, because rising food prices tend to harm urban consumers while benefiting rural producers.

Despite recent progress in poverty reduction, demographic characteristics, low levels of human capital, and limited access to basic services continue to constrain poor households. The heads of poor households are on average older and more likely to have no education than the heads of wealthier households. Poor households also tend to be larger and have higher dependency ratios than wealthier households, and these demographic factors are known to hinder poverty reduction. Compared to wealthier households, poor households are less likely to have access to safe drinking water (65.6 percent versus 80.4 percent), improved sanitation (47.8 percent versus 72.2 percent),

and other basic services.[73] Efforts to expand coverage of basic services will be vital to continued progress in reducing poverty and improving nonmonetary well-being. These efforts have become even more relevant with the COVID-19 pandemic.

Despite falling poverty rates, more than half of Kenya's population is vulnerable to falling into poverty in the near term. Vulnerability rates fell faster in rural than in urban areas, but the rural vulnerability rate (56 percent) still significantly exceeds the urban rate (42 percent; figure 26a).[74] Nationwide, more than one-third of nonpoor Kenyans are classified as vulnerable. Vulnerability is most common in households that derive most of their income from agriculture and those with low levels of education. Vulnerability rates are closely correlated with poverty rates and are highest in northern and northeastern Kenya (figure 26b).

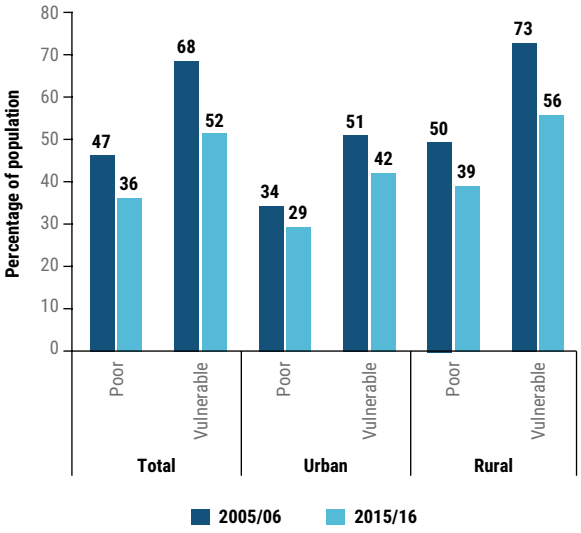
Poor and vulnerable households that experience shocks often resort to coping strategies that adversely affect their future well-being; agricultural households are especially susceptible to such shocks. The overall prevalence of economic and agricultural shocks declined between 2005/06 and 2015/16, but the frequency of some shocks affecting agricultural households increased. For example, agricultural households were far more likely in 2015/16 to report crop losses from preventable causes, such as crop diseases or pests, than they were in 2005/06.[75] The inability of poor households to cope with adverse shocks and their limited financial resilience has severe long-term implications, because reduced spending on food, education, and health care can dramatically slow human capital accumulation.

Poverty exacerbates exposure to climate change. Poor people are more exposed to floods, drought, and high temperatures than the rest of the population in Africa because of greater vulnerability of assets and livelihoods, less ability to cope with and recover from disasters, and the effects of risk on saving and investment behavior.[76] Recurrence of acute climate shocks and chronic climate effects in poor and vulnerable areas can quickly erase development gains and push entire households and communities into a spiral of poverty, with intergenerational consequences.

The Kenyan government has expanded its social protection programs, but their coverage and scale remain limited. The authorities increased spending on social protection to approximately 0.27 percent of GDP in 2015, still well below the average of 1.6 percent for lower-middle-income countries. Although Kenya's social protection schemes are generally well targeted, these programs are small,

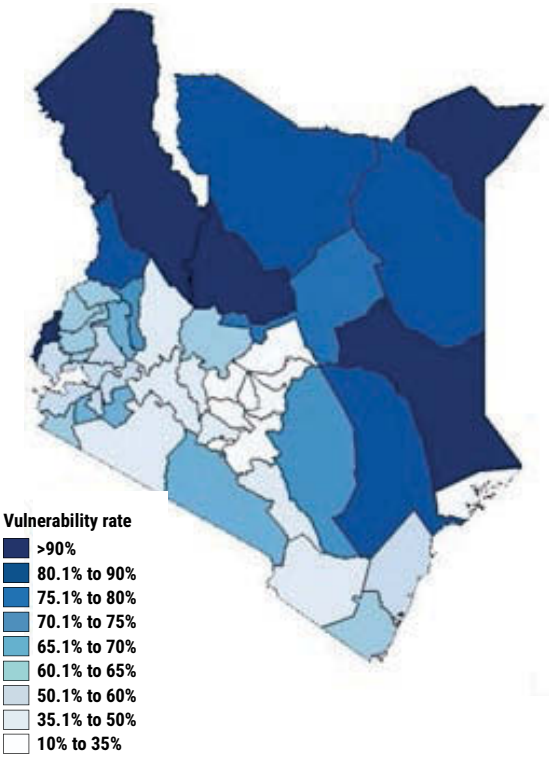
Figure 26. Poverty and vulnerability in Kenya

a) Poverty and vulnerability rates, urban and rural



Source: Pape and Mejia-Mantilla (2018).

b) Vulnerability rates by county



73 Pape and Mejia-Mantilla (2018).
74 Ibid.
75 Ibid.
76 Hallegatte et al. (2016).

and their geographic coverage is limited.[77] The COVID-19 global pandemic has underscored the need for a comprehensive social registry and more efficient ways to reach various vulnerable groups quickly. It is commendable that the government has made available an additional KES 10 billion to the elderly, orphans, and other vulnerable members of society through cash transfers, but this is well below the level of need, and proper identification and targeting of those most affected by the COVID-19 pandemic is a challenge.

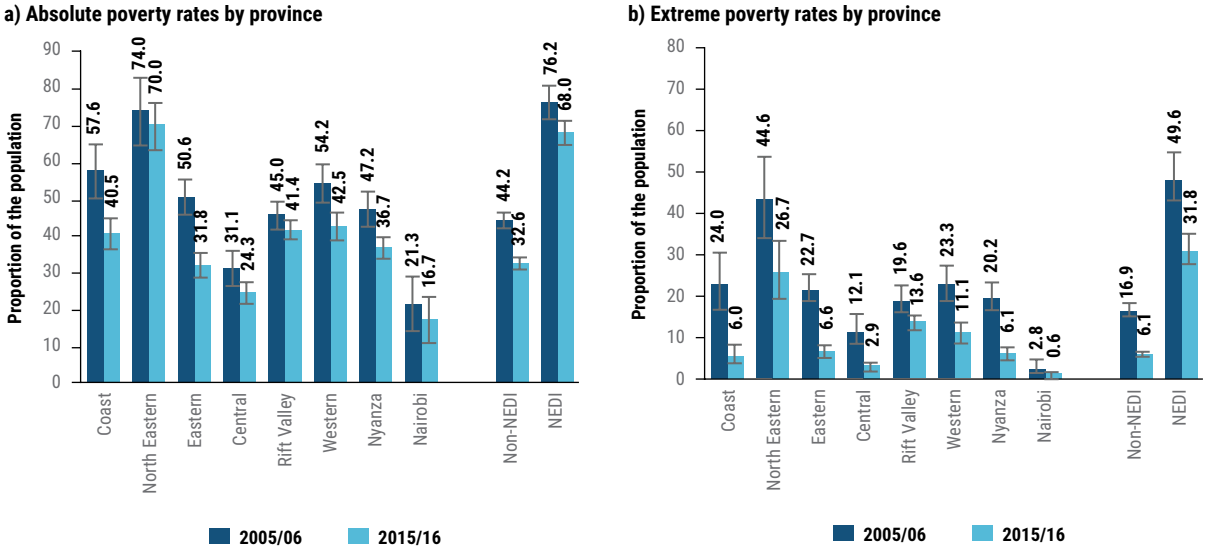
3.2 Drivers of monetary measures of inclusiveness

Poverty rates vary widely according to region and are most severe in historically underserved counties. The poverty indicators are far worse in the counties that constitute the North and Northeastern Development Initiative (NEDI), which includes all counties in the former Northeastern Province. The monetary poverty rate in these counties is 68 percent, almost twice the national average of 36.1 percent (figure 27a). The gap between NEDI and non-NEDI counties is even more striking when considering rates of extreme poverty (31.8 percent and 6.1 percent, respectively; figure 27b). Nonpoor households in these areas are also closer to the poverty line, and vulnerability rates[78] in all the NEDI counties far exceed those of the central counties. These disparities have origins in the colonial period in Kenya, when the administration developed only areas suited to the settler economy. The policies of successive post-independence governments only exacerbated the economic disparities.[79]

The effect of growth on poverty reduction is less than in peer countries. Kenya has experienced moderate GDP growth in the last decade, but this has not translated into a major increase in household consumption. The country's elasticity of poverty reduction to economic growth is only 0.57, weaker than expected for its level of GDP per capita and lower than regional peers Tanzania, Ghana, and Uganda. To accelerate the pace of poverty reduction, Kenya will need to generate more-inclusive economic growth coupled with a sharper focus on targeted poverty-reducing policies.

Kenya continues to face considerable inequality of jobs between regions and population groups. The overall employment rate in Kenya has risen substantially, from 60 percent of the working-age population in 2005 to 76 percent in 2015.[80] Nonetheless, many challenges persist in the labor market, including a growing job deficit affecting at-risk groups, a large gap in job creation between the formal and informal sector, and low productivity and quality of jobs. In Kenya, only 6 percent of total employment is in the formal nonagricultural sector, versus 49 percent in informal nonagricultural employment. The remaining 45 percent of workers are employed in agriculture, a low-productivity sector with high rates of underemployment. The Government of Kenya offers programs that provide technical and entrepreneurship skills and programs to facilitate job matching. Government expenditures on job programs have gradually

Figure 27. Regional patterns in poverty indicators



Source: Kenya Poverty and Gender Assessment, 2018.

77 Pape and Mejia-Mantilla (2018).
78 Households are considered to be vulnerable if their predicted probability of being below the poverty line at any time within the next 2 years is greater than 50 percent.
79 Government of Kenya (1965); and later, the 1983 District Focus for Rural Development.
80 World Bank (2019b), based on data from the Kenya Integrated Household Budget Survey 2005/06 and 2015/16.

increased since 2014 but still represent only a very small share of GDP at 0.1 percent. Two of the largest funds—the Youth Enterprise Development Fund and the Uwezo fund—which provide loans to women and youth, have disbursed funds to more than 2 million individuals since their inception in 2007 and 2014, respectively, but there is lack of evidence on their results.[81]

Kenya is urbanizing, and inequality in urban areas is rising. In 2005, 21.7 percent of the population was living in cities; this is projected to reach 30.3 percent by 2025.[82] Fifty-six percent of the country's urban population lives in slums, a rate similar to neighboring Tanzania and Uganda.[83] In Nairobi, poverty is highly concentrated in these informal settlements, with nearly 33 percent of slum residents being poor, compared with 9 percent of those living outside slum areas.[84] The mean per capita monthly consumption of slum residents (KES 10,377) is nearly 40 percent below that of non-slum residents (KES 16,688), and slum residents face severe deficiencies in housing quality, access to services, and environmental safety. Many slums are on the outskirts of the city center, limiting access to opportunities for employment and income.[85] Average job accessibility is particularly low in Nairobi because workers can only reach 24 percent of jobs in 1 hour using a minibus, less than half the share accessible by people in greater Dakar, Senegal.[86] The lack of resources and economic opportunities creates a geographic poverty trap for people living in urban informal settlements. In addition, the COVID-19 pandemic will be felt most severely among people in urban, informal settlements as their density can contribute to contagion, and the limited access to health care and sanitation will likely exacerbate direct health impacts.

3.3 Drivers of nonmonetary measures of inclusiveness

Progress in several dimensions of nonmonetary poverty accompanied reductions in monetary poverty. Kenya's HDI, which aggregates education, income, and life-expectancy indicators, rose from 0.45 in 2002 to 0.58 in 2018.[87] This is relatively strong given the country's considerable poverty headcount and places Kenya ahead of all other countries in the East African Community. Kenya nonetheless faces pronounced inequality of opportunity according to international standards. The population faces considerable challenges in several areas of human development and has limited access to infrastructure and essential services. These challenges are discussed below.

The rural population in Kenya faces considerable spatial exclusion with respect to gains from development. Residents of these areas rely heavily on subsistence agriculture, and arid conditions and frequent droughts mean that output from crops and livestock is unreliable. The sector also continues to implement policies and laws that act at cross-purposes. Rural areas in Kenya have not been fully included in development initiatives, leaving them with limited infrastructure. Total fertility rates remain much higher in rural areas, reaching 6.4 in the North Eastern region compared to 2.7 in Nairobi.[88] The relationship between politics and agriculture in Kenya is a symbiotic one (especially in the most agriculturally productive areas), which has often meant that policies are developed and implemented to serve political interests and that political unrest affects agriculture most. The combination of geographic isolation, a lack of resources, and sociodemographic factors creates significant barriers to full inclusion of rural areas in Kenya's development.

3.3.1. Health

There are considerable inequities between geographical areas and between socioeconomic groups. Across almost all age groups, the poor are less likely to use health care services. Moreover, the poor often have to travel greater distances to access health care. Rural persons in the bottom two quintiles must travel on average 31 km to reach a health care facility staffed with a doctor, whereas urban persons in the same quintiles must travel only 2 km.[89] The distribution of health care facilities and services in many ways still reflects the racial and structural inequalities that characterized Kenya during the colonial period—settlement areas for colonial administrators, white farmers, and Indians had adequate health services, whereas areas where the African native population lived lacked adequate health care facilities. At the national level, the frequency of outpatient services fell from 3.1 annual visits per capita in 2013 to 2.5 in 2018, in line with improvements in the overall health outlook for the country. Disparities between rich and poor nonetheless remained significant, with annual hospital admissions among the poorest quintile only half the level of the wealthiest quintile (28 versus 56 admissions per

81 World Bank (2019b).
82 UN-Habitat (2016).
83 Ibid.
84 Pape and Mejia-Mantilla (2018).
85 Mutisya and Yarime (2014).
86 Pape and Mejia-Mantilla (2018).
87 UNDP (n.d.).
88 Government of Kenya (2015).
89 Ibid.

1,000 population).[90] The effect of these discrepancies on access to health care can be clearly seen in relative health outcomes. For example, a child born in the primarily rural Nyanza region is almost twice as likely to die before the age of five as a child born in the Central region (82 versus 42 deaths per 1,000 live births).[91]

High costs limit access to health care for the poor and perpetuate cycles of poverty. Twenty-six percent of total health care expenditures come in the form of out-of-pocket payments by households.[92] In 2018, average annual out-of-pocket payments were KES 2,470. Most of these payments are made directly from household income and savings, because 82 percent of women and 79 percent of men do not have any health insurance.[93] Uninsured health care costs can push households into poverty or deepen a poverty trap.

Uneven distribution of human resources is a critical challenge for health care provision. Sixteen percent of Kenya's doctors serve the rural population. Although the capital is home to only 10 percent of the population and only 4.5 percent of the country's poor, approximately 15 percent of all health care workers and 39.1 percent of doctors serve there.[94] High absenteeism, lack of competency, and low productivity combine to weaken service delivery even further. The use of human resources in health care is both inadequate and inequitable, and major gains can be made by improving productivity and effective allocation. The ongoing COVID-19 pandemic is likely to put to test the Kenyan health care system at all levels. Private hospitals and health care centers—those that the poor cannot afford—are likely to be in a better position to cope than public facilities, thereby further exacerbating inequities in access to quality health care.

3.3.2. Education

Geographic and socioeconomic disparities in basic education enrollment continue to pose a challenge. Estimates from the Kenya Integrated Household Budget Survey 2015/16 show that primary NERs (Net Enrollment Rates) vary from 42 percent in Garissa County to 96.8 percent in Nyeri County. Meanwhile, the 2014 Kenya Demographic and Health Survey showed that the primary NER is approximately 90 percent for children in the top household income quintile and 75 percent in the bottom quintile. The regional gap is also clear, with close to 9 out 10 children in urban areas likely to be enrolled in grade six compared to only 7 out of 10 children in rural areas. The gap in secondary school enrollment is even more striking, with a 56 percent net secondary enrollment rate among households in the top income quintile, almost twice the rate of the bottom quintile. Moreover, net secondary enrollment rates in urban areas exceed rates in rural areas by almost 20 percentage points. Dropout rates are higher, especially in marginalized areas of the country and large urban areas, indicating that marginal areas (e.g., Mandera, Wajir, Turkana, Garissa) and poor urban areas (e.g., in Nairobi) have additional challenges, including sparse population settlements and poor infrastructure.

The COVID-19 pandemic is exacerbating these inequalities. The recent closure of schools due to COVID-19 has also brought to the fore the inequalities of opportunities in education. The Ministry of Education has moved rapidly to provide some distance learning through radio and television, and some schools are providing lesson material online. Nonetheless, many poor students, especially those in rural areas, are being deprived of the same learning opportunities because of lack of access to electricity and Internet services. This lack of learning during the COVID-19 pandemic thus affects poorer pupils the most and undermines the formation of their human capital and their potential future opportunities to escape poverty. Furthermore, some 15,000 poor and vulnerable students benefit from school meals across Kenya. Often this is the only regular meal these students receive, and school closures have affected these programs.

Economically disadvantaged counties lack resources and consequently have worse learning outcomes. Poorer counties and informal settlements in cities tend to have fewer secondary schools than primary schools, forcing students to travel farther to pursue a secondary education. A large number of teaching positions, especially in mathematics and science, are vacant in poorer counties, and many teachers lack adequate content knowledge and pedagogical skills. The effect of these resource gaps can be seen in test results. Fewer than 5 percent of students in the lagging counties—Kwale, Tana River, Lamu, Marsabit, Garissa, Wajir—could demonstrate minimum competency in numerical skills, compared with 53 percent in Baringo and 57 percent in Trans Nzoia.[95]

Gender disparities in school participation also tend to be concentrated in the most educationally disadvantaged counties, mainly in the North Eastern and Coast regions. Girls face extra constraints because of social expectations, for example to take on household responsibilities and domestic chores, and in economically disadvantaged areas they tend to marry and have children early.[96] Additional

90 Government of Kenya (2015).
91 Ibid.
92 Kenya National Health Accounts FY 2015/16.
93 Government of Kenya (2015).
94 Gayle and Pimhidzai (2013).
95 World Bank (2017a).
96 Ibid.

barriers to girls' school participation and retention include poverty and high school fees, poor infrastructure and long distances to schools, insecure learning environments, and increased exposure to violence and sexual harassment or abuse. A recent study of 17 schools in Kajiado and Nairobi found that at least 35 percent of girls had experienced sexual harassment in the last year, and 25 percent had experienced some form of sexual assault.[97]

Low transition rates into secondary among the poor most likely result from financial constraints. Although primary education is universally affordable, secondary education is often prohibitively expensive despite the introduction of tuition-free secondary education in 2008.[98] On average, the share of household expenditure for one child that is spent on his or her education is 75 percent, compared to only 11 percent in Ethiopia and 23 percent in Malawi.[99] Secondary education is much more expensive than primary education, and in the Kenya Integrated Household Budget Survey data, high costs were the leading reason respondents cited for nonattendance.[100]

Inequality of opportunity in education is most evident at the tertiary level. Given that the inadequately skilled labor force is a major constraint for the productive sector, tertiary education performance must be improved through closer links to industry. As a first step, it will be important to reform the legal framework and policies that govern tertiary institutions to reorient them toward performance-based financing models, which include core elements of equity, quality, and relevance. Kenya's higher education enrollment rate is 11.7 percent, slightly higher than the regional average of 9.3 percent. Nevertheless, there are huge disparities in access according to economic status. Enrollment is negligible among young adults from households in the lowest two income quintiles but close to 45 percent for those in the top quintile. Enrollment in universities is growing rapidly, but it comes at the expense of quality. For instance, the number of academics teaching at public universities grew only 13 percent between 2011 and 2018, whereas student numbers quintupled. In addition, pedagogical practices continue to be very traditional in many higher education institutions, with overreliance on rote learning and outdated curricula that tends to be excessively theoretical.

3.3.3. Water

There are considerable regional inequalities in water and sanitation infrastructure. Although 86.7 percent of households in urban areas have access to an improved water source, only 61.8 of those in rural areas do.[101] This gap is equally evident for sanitation services, with 50.8 percent of rural households using unimproved sanitation, compared to a much lower 13.2 percent of households in urban areas.[102] Performance on the abovementioned sanitation indicators is weaker than would be expected given Kenya's status as a lower-middle-income country.

Providing equitable access to water, sanitation, and hygiene services in all counties is a huge challenge for Kenya. There are 10 counties in which at least 80 percent of households have access to water from an improved source, and 11 counties where this number is less than 50 percent.[103] In four counties, access to sanitation services is almost universal, whereas in nearly half of the counties (21 counties), more than 50 percent of households do not have access to improved sanitation services.[104] Some 12 percent of the population is still practicing open defecation, and the open defecation rate in 15 counties is more than 50 percent, a number incompatible with the country's middle-income country ambition. Many large, poor communities in informal settlements have access to neither water nor sanitation services. Given the guidelines to maintain social distancing and wash hands regularly, this has made people living in slum conditions even more susceptible to rapid spread of the virus if there is an outbreak, although as of May 2020, the spread appears to be contained.

Lack of access to safely managed water and sanitation services is a major impediment to the development of human capital. Inadequate water, sanitation, and hygiene services severely reduces human capital through premature death, reduced working hours and productivity while ill, the cost of medical treatment, and lost time seeking access to sanitation facilities. Kenya's Ministry of Health estimates that inadequate sanitation practices and unsafe drinking water are the sources of 75 percent of the country's disease burden. A cholera outbreak that lasted from 2014 to 2016 affected 16,840 people in 30 counties and killed 256.[105] Poor sanitation is also linked to stunting, which can affect educational

97 Baseline Survey Results and Feasibility of Tablet-Based Data Collection in Urban Nairobi and Rural Kajiado Ujamaa, Africa and Johns Hopkins University, 2019.
98 Matata (2016).
99 Bashir et al. (2018).
100 Pape and Mejia-Mantilla (2018).
101 Kenya National Bureau of Statistics (2018).
102 Ibid.
103 Ibid.
104 Ibid.
105 UNICEF (2016).

attainment and long-term productivity; 29.9 percent of children in Kenya are moderately stunted, with stunting rates ranging widely between counties, from 8.9 percent in Garissa to 47.6 percent in Mandera.[106] Where proper sanitation is lacking, women and girls are often more at risk of waterborne disease, because they have a greater burden of domestic work and greater responsibilities in caring for the sick. In addition, inadequate access to water and sanitation in schools affects education outcomes, especially for girls. Inadequate water supply and sanitation thus has lasting effects on human capital, and disproportionally on the poor.

3.4 Gender and inclusion

Poverty disproportionately affects Kenyan women. As in other African countries, Kenyan women aged 25 to 60 are more likely to live in poor households than men, with the gap reaching almost 10 percentage points for those aged 30 to 34.[107] The poverty gap is particularly striking between men and women who have lost their spouses—38 percent for widows compared with 25 percent for widowers. Although mobile phone penetration is high, women are less likely to use mobile Internet (with a gender gap of 39 percent) and less likely to use the mobile phone-based money transfer service M-Pesa (16 percent gender gap), which is a significant constraint on women's economic opportunities and productivity.[108]

Social factors stemming from traditional gender roles and attitudes about advancement of women in the public sphere limit the participation of women in politics and community leadership. Large gender gaps are evident in business profits, driven primarily by sectoral segregation. For example, women with little or no education have high earnings in the construction sector, but they account for a tiny share of the sector.[109] Research on "crossover" female entrepreneurs working in these more-profitable, male-dominated sectors suggests that women's intersectoral mobility and financial returns can be increased through exposure to these trades through social network role models.[110] In addition to these observed social inequalities, gender differences remain codified in law, with the Law of Succession Act explicitly distinguishing male from female surviving spouses.

Women in Kenya face significant reproductive health risks. Kenya's maternal mortality ratio has declined to 362 deaths per 100,000 live births,[111] still very high but below the Sub-Saharan Africa average of 547 per 100,000. Kenyan women face an extremely high (1 in 42) lifetime risk of dying from complications from pregnancy or childbirth. Although total fertility has declined nationally from 4.9 births to 3.9 births per woman, in some regions, it can be much higher—for example in Wajir (7.8) and West Pokot (7.2). Early childbearing is a significant challenge, with implications for maternal mortality and complications during childbirth. Nearly one-quarter of women in Kenya give birth by age 18 and nearly half by age 20.[112] Many factors contribute to early childbirth, including poverty and educational attainment; 33 percent of girls aged 15 to 19 with no education have begun childbearing, and teenagers from the poorest households are more likely to have begun childbearing (26 percent) than those from the wealthiest (10 percent).[113] Additional factors include peer influence, early sexual debut, lack of comprehensive sex education, lack of access to or use of contraception, lack of parental counseling and guidance reinforced by cultural taboos that inhibit discussion of sexual health, coercive sexual relations, and uneven power relationships between men and women.[114]

Pervasive social norms that ascribe disproportionate responsibility for domestic work to women contribute to disparities in access to economic opportunities, especially in the northeast. In 2015/16, Kenya's female labor force participation rate was 71 percent for the core working-age population (15–64 years), compared with 77 percent for men. Female labor force participation in Kenya exceeds the average of Sub-Saharan Africa (63 percent) but is lower than in peer countries such as Ethiopia (77 percent) and Tanzania (80 percent).[115] Adult literacy rates for women are lower than for men in every county, with illiteracy almost twice as high nationally for women aged 15 and older (18 percent) as for men aged 15 and older (10 percent). In part because of the area's emphasis on traditional gender roles, women in northeastern Kenya spend an especially large amount of time engaged in unpaid household labor, and in some areas, female labor force participation is less than 20 percent. In line with international experience, mean monthly earnings for male workers are 30 percent higher than for female

106 Kenya National Bureau of Statistics (2018).
107 Pape and Mejia-Mantilla (2018).
108 Connected Women (2019).
109 Pape and Mejia-Mantilla (2018).
110 Alibhai et al. (2017).
111 Government of Kenya (2015).
112 Ibid.
113 World Bank (2018).
114 Yakubu and Salisu (2018).
115 Pape and Mejia-Mantilla (2018).

workers.[116] Limiting the participation of women in the productive economy is not only a factor in gender inequality, but also hinders economic development on a national scale.

The prevalence of gender-based violence (GBV) is a significant and persistent development challenge in Kenya. Forty-five percent of women have experienced some form of physical violence, and 14 percent have experienced some form of sexual violence.[117] Experiences of GBV not only affect the health and well-being of survivors, but also have intergenerational effects; witnessing or experiencing GBV as a child in the home is a strong predictor of future experience of GBV for girls and perpetration of violence for boys.[118] Intimate partner violence is particularly prevalent, with 39 percent of women having experienced some form of physical or sexual violence in their current or most recent intimate relationship.[119] Child marriage can increase the risk of intimate partner violence, and child marriage is widespread, with 23 percent of women aged 20 to 24 reporting that their first marriage was before the age of 18.[120] GBV also creates significant economic costs in out-of-pocket medical expenditures, lost productivity, and forgone income. A World Bank study of five countries indicated that intimate partner violence can cost up to 4 percent of GDP.[121] Female genital cutting also remains a common practice, with 21 percent of women aged 15 to 29 reporting having been circumcised, although the proportion varies according to ethnic group and religion.[122]

Box 8. Vulnerable and excluded groups

As of December 2019, Kenya was hosting 489,747 refugees and asylum seekers. The majority were from Somalia (264,265), South Sudan (121,553), the Democratic Republic of Congo (43,576), and Ethiopia (28,416);[a] 217,151 reside in the Dadaab refugee camp (Garissa County), 193,684 in Kakuma refugee camp (Turkana County), and 78,912 in urban areas. The refugee hosting areas are in the NEDI region, which has the highest poverty rates in the country and has historically experienced significant deficits in service delivery, infrastructure creation, and economic opportunities. Although the social and economic effects of refugees on Kenyan hosts has been positive overall, it has also raised challenges that need to be addressed, including greater competition for basic social services, degradation of the physical environment, limited livelihood opportunities, and decreasing water availability.[b] The results of a recent survey of the socioeconomic condition of refugees in the Kalobeyei settlement in Turkana County show that the host community and refugees are among the worst off in Kenya in terms of poverty and associated socioeconomic indicators.[c]

According to the most recent statistics, 2.8 percent of the Kenyan population reported a disability, with rural areas having a higher proportion (3.3 percent, versus 2.0 percent for urban areas).[d] Physical, visual, and hearing disabilities were the most prevalent types reported. At the national level, 54.7 percent of persons with a disability reported difficulties engaging in economic activity, with a higher proportion reported in rural than urban areas. Earlier data suggest that only 26 percent of persons with disabilities use assistive devices and support services and face challenges in actively participating in family and social activities because of stigma and prejudice.[e] Special attention is therefore required to include this group in the development process.

The well-being of the population in the NEDI counties lags considerably behind that of the rest of Kenya, affecting women and girls in particular.[f] In the NEDI counties, 68 percent of the population lives in poverty, compared with 36.1 percent at the national level. Moreover, these counties saw little progress in poverty reduction between 2005/06 and 2015/16, with a reduction in headcount rate of 1.1 percent annually, compared with 3 percent in non-NEDI counties. Poor households in the NEDI counties also lie far below the poverty line, meaning that the effort needed to lift households out of poverty in these areas will be considerable. Female-headed households in NEDI counties have higher poverty rates than in the rest of Kenya, and women have lower participation in the labor market. Educational enrollment rates are much lower for these counties, particularly in secondary education, with stark gaps between girls and boys. In terms of health care services, the NEDI counties have less access to health care and lower uptake rates, particularly in terms of number of children treated for illness, vaccination rates, and childbirth attended by a skilled provider. For example, vaccination rates vary from more than 90 percent in the Central region to about 44 percent in Mandera in the northeast and only 36 percent in West Pokot. Limited access to health care coupled with extremely high fertility rates results in the highest maternal mortality of the country. In addition, coverage of improved sanitation services and electricity and to a lesser extent access to improved water services is lower. Although the government has implemented some measures to improve the connectivity and overall well-being of the population in these areas, a substantive, sustained, cross-sectorial effort is required in the medium term.

116 Pape and Mejia-Mantilla (2018); the mean reflects unconditional earnings (cash and in-kind) of wage earners and is not normalized for working hours.
117 Government of Kenya (2015).
118 Ehrensaft et al. (2003); Gómez and Speizer (2010).
119 Ibid.
120 UNICEF global databases, 2018, based on Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and other nationally representative surveys.
121 Klugman et al. (2014).
122 Government of Kenya (2015).

Approximately half of Kenya's population is younger than 18, and more than three-quarters is younger than 35, with unemployment or underemployment being a crucial challenge for young men and women. Between 2015 and 2025, 9 million individuals are expected to enter the labor force.[g] To absorb this "youth bulge," Kenya needs to create an average of 900,000 jobs every year. However, job creation has failed to keep pace with new entrants, and in recent years, sufficient employment opportunities have not been added for the new workforce. Women, youth, and individuals with little education are excluded from good jobs. Youth unemployment and inactivity have decreased significantly over the past 10 years, but youth unemployment remains much higher than for the total workforce. For instance, in Nairobi, 18 percent of youth are unemployed, compared with 10 percent of the total working age population. In Mandera, 22 percent of youth and 6 percent of the total working age population are unemployed.[h] Furthermore, the figures on employment may underestimate the proportion of youth who work in low-productivity jobs.[i] Youth are more likely to work in sectors and occupations that have lower productivity and command lower earnings. In urban Kenya, almost 80 percent of employed people aged 15 to 24 have an informal job (unpaid, self-employed, wage worker without social security), versus 70 percent or less for the rest of the population.[j]

The population of Kenya also includes several vulnerable and marginalized groups that experience systemic discrimination. The World Bank Environmental and Social Framework, specifically Environmental and Social Standards 7, characterizes marginalized communities as exclusively distinct social and cultural groups possessing identifiable characteristics in varying degrees, such as self-identification of members, collective attachment to a distinct geographical habitat, a culture that is distinct or separate from that of mainstream society, and a distinct language. The constitution of Kenya (2010) identifies marginalized communities as: "A group of people who, because of laws and practices before, on or after the effective date of the Constitution of Kenya (2010), were or are disadvantaged by discrimination on one or more of the grounds in Article 27(4)." Although these definitions help identify historically disadvantaged communities in Kenya, the contemporary causes of marginalization under devolution have created new forms of marginalized communities and groups in Kenya, constituting a significant population that would benefit from affirmative action and targeted development support based on their poverty situation and hardship due to their circumstances and exacerbated by other factors such as climate change. The culturally-based marginalization of indigenous women and youth can also be observed, notably in underdeveloped counties.

[a]Data taken from UNHCR Kenya monthly operational updates, accessed 10 February 2020; available online at https://www.unhcr.org/ke/wp-content/uploads/sites/2/2020/01/Kenya-Infographics-31-December-2019.pdf
[b]Sanghi, Onder, and Vemuru (2016).
[c]In World Bank and UNHCR (forthcoming) "Understanding the Socio-Economic Conditions of Refugees in Kalobeyei, Kenya."
[d]Kenya National Bureau of Statistics (2018).
[e]Kenya National Coordinating Agency for Population and Development and Kenya National Bureau of Statistics (2008).
[f]Pape and Mejia-Mantilla (2018).
[g]World Bank (2016b).
[h]Pape and Mejia-Mantilla (2018).
[i]Fares, Montenegro, and Orazem (2006).
[j]World Bank (2016b).

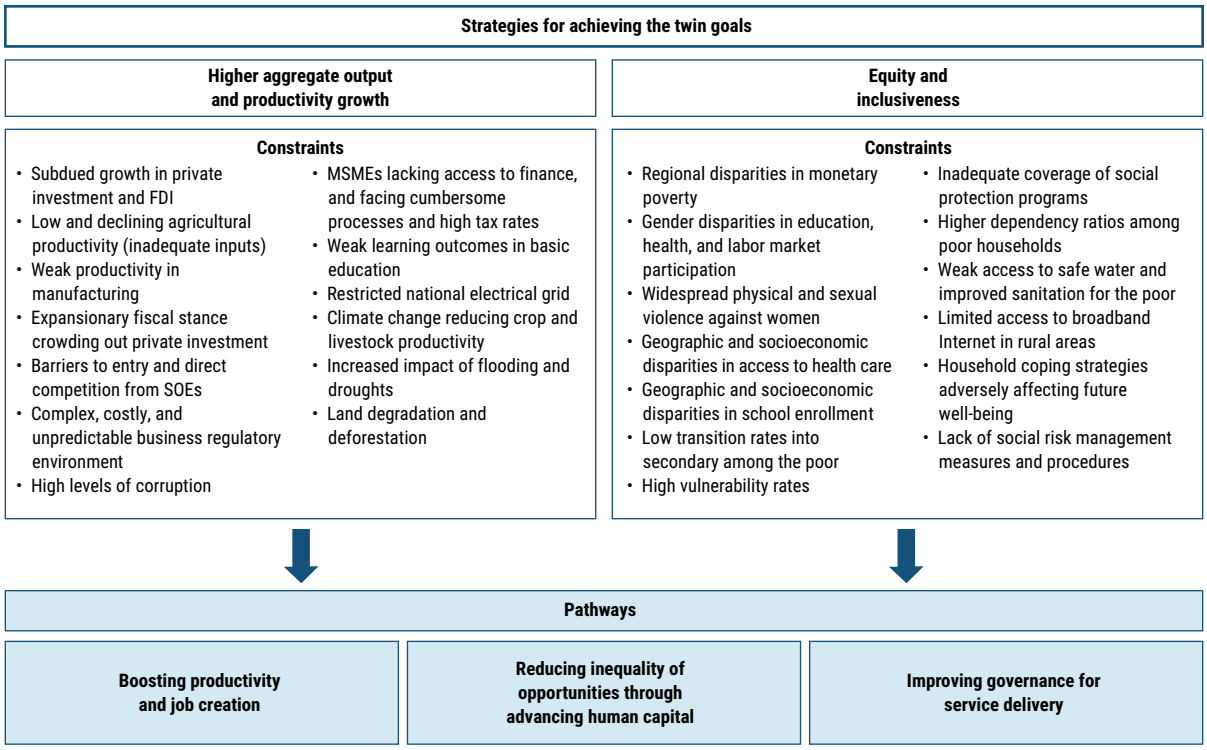
4. Pathways to reduce poverty and boost shared prosperity

This Systematic Country Diagnostic has outlined a number of constraints impeding Kenya's progress toward growth and shared prosperity. Potential gains in productivity and economic output are being limited by subdued private investment, a weak business environment, and an expansionary fiscal stance. In parallel, poverty reduction and shared prosperity are being held back by geographic and socioeconomic inequities in wealth, health, and education, as well as gender disparities including high rates of GBV. These long-standing structural challenges have however been exacerbated by the recent COVID-19 pandemic.

Three pathways have been identified that may help Kenya escape from these constraints. The development pathways that can best help Kenya pursue the goals of economic growth and shared prosperity can be determined by considering the most binding constraints (figure 28). The analysis in this SCD points to three critical pathways: (1) boosting productivity and job creation, (2) reducing inequality of opportunities by advancing human capital, and (3) improving governance for service delivery. No single pathway targets a specific constraint or category of constraints, but each addresses a range of binding conditions and sustainability concerns. In each of the three pathways, specific, effective interventions in the public and private spheres can be identified that will help Kenya move toward achieving the twin goals. These individual actions will be considered and prioritized in the next chapter.

In addition, several foundational challenges affect all of the identified pathways. Concerns about sustainability, inclusiveness, and digital transformation must be taken into account if the three pathways are to have a lasting impact. Given the long timeframe of the challenges that Kenya is facing, it is crucial to consider the sustainability of current trajectories of economic and social development. Critical sustainability questions include fiscal stewardship, effects of climate change, and the country's undeveloped capacity for social risk management. Challenges regarding inclusiveness also affect all of the pathways, including gender inequality and the special concerns of marginalized groups. Finally, all of these pathways must also account for global digital transformation and the unique opportunities it can offer for social change and expansive economic growth.

Figure 28. Identified strategies, constraints, and pathways



4.1 Boosting productivity and job creation

Productivity and structural reforms are needed across a range of sectors to encourage the dynamism of the private sector, which is necessary for economic growth and job creation. The government needs to address core structural obstacles to economic growth, such as infrastructure deficiencies, skill shortages, and supply chain inefficiencies, as well as cross-cutting constraints, such as the lack of an enabling environment, insufficient competition, and informality. Given that agriculture accounts for roughly half of Kenya's GDP and employs more than half of its workforce,[123] removing barriers in the sector will be critical for poverty reduction and boosting shared prosperity. Productivity in private sector jobs will also be essential for economic growth and poverty alleviation. This relationship is well documented; no country in modern economic history has experienced rapid poverty decline without a dynamic, vibrant private sector.

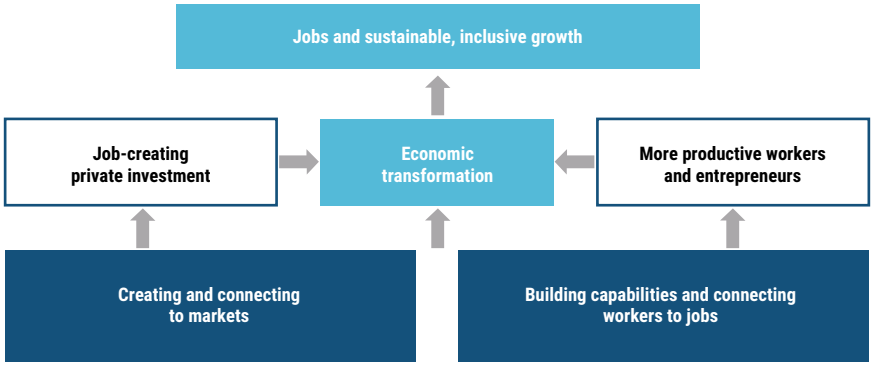
To guide the discussion regarding investment and job creation, the framework of the 19th International Development Agency (IDA) replenishment's (IDA 19) Special Theme on Jobs and Economic Transformation (JET) is adapted for Kenya.[124] The constraints identified in the diagnostic portion of this SCD are placed within the IDA 19 JET framework to help conceptualize a policy agenda that will accelerate attainment of the World Bank's twin goals in Kenya (figure 29). The framework rests on two pillars: (1) the need to catalyze private investment, and (2) the creation of more productive workers and entrepreneurs. The JET framework is used as a sub-framework within the SCD conceptual framework to deepen the pathway discussion and show how increased growth and the inclusiveness of that growth can accelerate achievement of the twin goals by boosting private investment and creating jobs. Specific initiatives that address both pillars of the JET framework are discussed below.

4.1.1. Fostering macroeconomic stability and fiscal sustainability

Re-creating fiscal space over the medium term is necessary to create an enabling environment to boost private investment. As noted in Chapter 2, the single largest threat to macro stability is from the burgeoning fiscal challenge. Re-creating fiscal space is important, not only because it safeguards macro stability—which is a necessary though not sufficient condition for robust growth—but also because fiscal consolidation will contribute to crowding in the private sector, the main engine and driver of productive jobs. In the near term, using fiscal policy on a countercyclical basis to mitigate the effects of COVID-19 on lives, livelihoods, and the broader economy is important, but over the medium term, as COVID-19 recedes, it will be critical

123 Wankuru et al. (2019).
124 World Bank (2019c).

Figure 29. 19th Replenishment of the International Development Agency Jobs and Economic Transformation Framework



Source: "Jobs and Economic Transformation (JET)—Drivers, Policy Implications and World Bank Group Support" prepared by the World Bank Group for the October 19, 2019 Development Committee Meeting.

for the depleted fiscal buffers to be rebuilt. Returning to the medium-term fiscal consolidation pathway, as outlined in the government's fiscal framework, will ensure fiscal and debt sustainability and safeguard macroeconomic stability. Measures to support fiscal consolidation could include controlling expenditures (especially recurrent), projecting more realistic revenues to avert fiscal slippages due to revenue underperformance in relation to optimistic targets, boosting domestic revenue mobilization, and increasing the efficiency of public investment management. (For specific policy priorities, see box 9.) Fiscal consolidation measures can be pursued over the medium term, and even though an expansionary fiscal stance is warranted because of COVID-19, reforms to improve the efficiency of spending can be undertaken in the near term.

Box 9. Policy priorities to support medium-term fiscal consolidation

Expenditure Measures

- Moderate aggregate expenditure growth to support the realization of a primary surplus
- On recurrent spending:
  a. Cap growth in allowances and benefits
  b. Clean up public sector payrolls and integrate public sector payroll systems for effective controls and accountability
  c. Accelerate procurement reforms, including transparency requirements contained in Executive Order #2, 2018, the stand-alone E-procurement system and its integration with Integrated Financial Management Information System, and linkage with all ministries, the state department and agencies; and strengthen capacity of state investigative institutions to prosecute fraud and corruption to help ensure value for money in public procurement
  d. Reduce as much as possible the proliferation of government regulatory entities with overlapping mandates and duplication of functions
  e. Accelerate the SOE rationalization agenda to plug losses to the exchequer and to increase overall economic efficiency
  f. Address growth in unfunded pension liabilities in the short term by enacting parametric reforms to the existing defined benefit scheme and over the medium to long term through the proposed shift to a system of defined contributions
- On development spending:
  a. Review the inventory of at least 1,600 ongoing projects—some of which have been drawing funds from the exchequer for over 10 years and yet remain less than 50 percent complete—and close projects that are not advancing
  b. For new projects, establish a system of commitment control that strictly prevents any government ministry or agency from entering into contractual obligations with fiscal implications without prior approval from the National Treasury and Attorney General
  c. Require that new projects go through the readiness checklist before being included in the budget, to help improve execution rates
  d. Pay all pending bills to contractors and require that all state agencies pay new bills no more than three months after the prescribed payment date
  e. Address bottlenecks in the effective functioning of the Public-Private Partnership Act (PPP) to mobilize private capital for public infrastructure projects (e.g., clarity on tolling regime)

Revenue Measures

- Apply conservative revenue projections in the national budget to avoid fiscal slippages and susceptibility to ad hoc expenditure rationalization when revenues underperform
- Enact the Income Tax Bill, which seeks to rationalize corporate income taxes
- Rationalize value-added tax (VAT) exemptions
- Establish a governance architecture that provides a transparent mechanism for the award of tax exemptions
- Publish detailed information on tax expenditures
- Streamline the multiplicity of taxes and improve the predictability of the tax regime

Debt-Related Measures

- Maximize use of concessional resources by increasing absorption rate of donor-financed projects
- Replace more expensive debt (domestic or international) with cheaper options
- Lengthen the maturity duration of debt, by issuing longer dated bonds (domestic or international)
- Diversify funding sources, which can include issuing niche bonds (e.g., green bonds, sukuk bonds, diaspora bonds)
- Accelerate the placement of Kenya shilling bonds in offshore markets to reduce vulnerability of debt to foreign exchange fluctuations

4.1.2. Improving access to finance for MSMEs

Access to finance is one of the major constraints on the growth of the MSME sector—an important engine of growth for the Kenyan economy. Some of the specific constraints on lending to MSMEs must be addressed, in particular after COVID, when many firms could be in need of significant credit to restart their operations. Specific interventions could include the following.

- **Operational, efficient national credit guarantee scheme.** Kenya could establish a national credit guarantee scheme that considers the need to: (1) build MSMEs' capacity to absorb finance by improving financial literacy and managerial capabilities, (2) build the financial data of MSMEs, which is critical in credit appraisals, (3) bridge the payment gap for MSMEs by procurement entities such as government payments, and (4) identify skilled and committed employees with experience in MSME lending.
- **Credit delivery models for young entrepreneurs.** Given that youth are likely to form the bulk of the new labor force, the design of credit extension policies must consider the unique situation of youth. Following traditional approaches that require sizeable collateral and lengthy track records will not work for young entrepreneurs. To harness the creativity and ingenuity of youth, new credit delivery models are needed. This could include reserving a portion of the credit guarantee scheme for entrepreneurs younger than 35, combining existing youth funds into one fund for greater impact, staging business competitions for youth-led start-ups, and coupling provision of credit with mentoring opportunities.
- **Universal adoption of credit scores in credit pricing.** Credit reporting can have a sizable effect on the ability of banks to differentiate between risky borrowers and offer financing that is priced according to the risk of the borrower. To strengthen credit reporting in Kenya, the Central Bank is working with banks on increasing the quality of their consumer data and harmonizing credit scores, as well as working with the Government of Kenya to develop a national credit information sharing policy.
- **Alternative data for MSME finance.** Financial institutions in Kenya struggle to find up-to-date information and data on MSMEs, which affects their ability to make data-driven business decisions. Market players are encouraged to identify ways to leverage financial technology to better allow for the use of alternative sources of data and advanced data analytics that will enhance access to markets and finance for MSMEs.
- **Application of the movable collateral registry to MSME product development.** MSMEs could leverage the recent establishment of an electronic movable property registry to increase their access to credit from lenders.
- **Build capacity of Savings and Credit Cooperative Societies (SACCOs) for better intermediation of MSMEs.** SACCOs in Kenya operate in a cash-constrained environment, which is a result of a variety of management, policy, and product design-related challenges. Capacity building and liquidity support could be provided to SACCOs to help them provide products suitable for MSMEs and to lend based on data and cash flow rather than deposits.
- **More generous lines of credit provided by development partners and dedicated to bank financing of MSMEs.** The government of Kenya could expand its existing schemes to provide longer-term loans to MSMEs.
- **Support of responsible financial innovation.** Given challenges in tracking over-indebtedness and multiple borrowing (overlapping loans from multiple lenders), as well as gaps in financial consumer protection legal frameworks, the Government of Kenya could strengthen regulatory frameworks and supervisory practices to support financial innovation,

sustaining trust and confidence, maintaining financial stability, and responding to potential risks.

4.1.3. Removing regulatory hurdles

Regulatory restrictions and distortions in the economy should be eliminated or reduced as much as possible to unleash competitive forces and boost potential GDP growth. Although structural reforms have improved growth performance, there is room to address some of the deeper regulatory challenges limiting the growth potential of the economy. The effects of COVID-19 on the economy and the likelihood that many businesses will need to restart after a complete shutdown make this reform agenda even more important. For this to occur, barriers to entry and competition must be removed, protective trade policies and practices must be changed, and SOEs must be reformed.

Regulatory reforms should be enacted to reduce or remove rules restricting market entry. The removal of regulatory barriers and government interventions that restrict market entry and competition would help create business opportunities, increase competition, lower prices, and create jobs. One study conservatively estimated that lifting regulatory barriers in the services sector alone could result in an increase in GDP growth of at least 0.39 percentage points per year.[125] Furthermore, areas where licenses are needed (e.g., for health, safety, and environmental reasons) could benefit from better regulatory management systems to minimize discretion in the awarding of licenses.

Removing protective trade barriers and suppressing anticompetitive practices would allow for greater competition. Fostering a more competitive economy would help lower prices, boost innovation, and improve quality, all of which are ultimately beneficial for consumer welfare and productivity growth. Trade policy is one area that can prevent competitive forces from acting as a strong driver of efficiency gains in an economy. For certain products, Kenya has tariff rates that are higher than its most-favored-nation bound tariff rates. For instance, in 2017, under the East African Community waiver regime, Kenya applied tariff rates that were higher than the East African Community common external tariff regime in some 48 tariff lines (e.g., iron and steel). Furthermore, most-favored-nation bound tariff rates are very high for some commodities (e.g., 100 percent for sugar), and for some commodities mixed duties and tariff quotas apply, thereby further limiting competition.

Addressing regulatory barriers to entry and business expansion, as well as leveling the playing field, will be important prerequisites for addressing the youth unemployment challenge. With unemployment high and youth unemployment even higher (around 40 percent), there is a critical need for action. Reducing barriers to entry in specific sectors would allow new entrants, including youth, with new ideas to drive competition and increase productivity. Furthermore, a level playing field should enable existing firms in a sector to compete more freely and thus allow for resources to move to the most productive firms. This will in turn give them the opportunity to expand employment, since an unlevel playing field allows for the survival of less efficient firms with limited capacity to sustainably increase employment.

Finally, reforms to SOEs could help equalize access while reducing the drain on the exchequer. To allow the private sector to nurture the development of certain markets it will be important to limit government intervention and the role of SOEs to situations in which the private sector is unable to operate. Reforms of SOEs have been long overdue since the publication of the 2013 report of the Presidential Taskforce on Parastatal Reforms, but not much reform has taken place. Indeed, reforms of SOEs will require better governance, including the implementation of reforms incorporating merit-based appointments, as well as streamlining and automating public financial management processes between SOEs and the central government. Stricter market discipline mechanisms will also be necessary to ensure competitive neutrality and to help crowd in the private sector.

4.1.4. Addressing inefficiencies in the land market and land use

Land market distortions will need to be remedied, because land is an important factor of production and one of the most important assets of the poor. Better functioning land markets can increase access to credit for households and SMEs. To address the adverse impacts of unplanned land use, the government could accelerate a number of reform efforts that have already commenced.

- **Digitization of land records.** Accelerating the digitization of land records and implementing the National Land Information Management System has been a focus of the Government of Kenya for the past few years. The government must pay greater attention to the core challenge of the integrity of records, specifically reducing the risk of fraud and duplicate entry. The use of block chain technology is a potential solution. Alteration of records has been the main factor in the loss of trust in Kenya's land records, and compared to paper block chain technology makes it more difficult for records to be altered without detection.
- **Implementation of National Land Use Policy.** This would address the challenges of uncoordinated land use and ensure that the selection and adoption of land use options meet the economic and social needs

125 World Bank (2015b).

of Kenyans, while safeguarding future resources. Although the National Land Use Policy was adopted in 2016, further action is needed to ensure that optimal land use is coordinated at the national level. Implementing the existing policy will ensure more appropriate, coordinated zoning of land for specific uses.

- **Completion of National Spatial Plan (2015–2045).**[126] This plan was developed to increase the efficiency of public investment spending and to guide private investment decisions in industry and services. County spatial plans derived from the National Spatial Plan (according to the requirement) need to be completed in the 47 counties to ensure the expected gains from the large-scale coordination of sector development toward the goals outlined in Kenya's Vision 2030. Implementation of the Kenya National Spatial Data Infrastructure (NSDI) will increase access to and use of geospatial data to support a variety of policy decisions.
- **Increase in commercial use of idle public land.** Underused parcels of publicly held land (e.g., national, county, parastatal) of significant size and appropriate productive capacity should be identified. These lands should be leased for agricultural production (including commercial agriculture), agroprocessing, and other businesses.

The challenge of urbanization can be transformed into an opportunity for productivity growth. Although agglomeration effects create economic opportunities, urbanization and population growth increase pressure on existing urban infrastructure, including traffic congestion, water shortages, and high housing costs, which if not addressed can limit potential productivity benefits from urbanization. The growth of African cities into economically efficient, productive environments requires functioning land markets, financing for public investments, and effective urban planning.[127] The 2016 World Bank Kenya Urbanization Review recommends that urban and rural planning offices be fully established at the county level and that county executives' capacity in participatory planning be increased through training.[128] Model legislation should be developed for zoning by-laws, development controls, and decision-making and approval processes.

The potential integration of low-carbon technologies and green mobility into planning for sustainable growth and development is a major opportunity. Two-thirds of the urban space needed by 2050 has yet to be built in Sub-Saharan Africa. Based on ongoing projects (2010 to 2020), 75 percent of this growth will take place in settlements and cities with fewer than 1 million people. These will tend to have weak governance structures, high levels of poverty, and limited infrastructure and service delivery. Kenya's population of 50 million will almost double by 2050, reaching 90 million, and Nairobi's population of 5 million is projected to almost triple over the same period.

4.1.5. Addressing the infrastructure challenge

There is a need to continue to address the country's significant infrastructure challenges. Measures to improve transportation infrastructure could include:

- **Prioritizing transportation networks.** Given limited resources, new transportation infrastructure should focus on networks that directly support productive activity, improve connectivity between markets (e.g., linking rural production to urban markets), and promote regional transportation network linkages. More generally, there is a need to focus limited resources on improving the quality rather than increasing the quantity of the network, in addition to improving transportation safety, comfort, and reliability.
- **Addressing gaps in the legal and regulatory framework for transportation infrastructure development.** The strengthening and consolidation of the legal and regulatory framework is indispensable for the establishment of adequate technical, institutional, financial, and socio-environmental conditions for the concessioning and operation of separated bus corridors, feeder routes, and rail commuter services. This includes re-regulation of matatu services (privately owned minibuses) and careful consideration of affordable public service obligations for bus rapid transit and commuter rail service providers.
- **Addressing bottlenecks in the effective functioning of the Public-Private Partnership Act to mobilize private capital for public infrastructure projects.** This would include clarity on tolling policy, tolling revenue, and the location of the seat of arbitration hearings. It would also serve to address concerns that investors have raised about the letter of support issued by the government.
- **Developing a comprehensive urban traffic and transportation strategy.** Developing such a strategy should start with the consolidation of various urban traffic and transportation policies. The urban transportation strategy must prioritize mass public transportation and intermediate means of transportation and provide guidance to the Nairobi Metropolitan Transport Authority in formulating short-, medium-, and long-term actions.
- **Developing and implementing mobility programs in major towns.** This would involve integrated public transportation, road, rail, and non-motorized transportation

126 The National Spatial Plan (2015–2045) provides a coordinating framework for sectoral planning, particularly infrastructure for basic services, industrialization, and economic prosperity. It is intended as an input into the Medium Term Plans (MTPs), thus addressing the disconnect between physical and economic planning. Lower-level plans, including county spatial plans, are prepared based on the National Spatial Plan.
127 Lall, Henderson, and Venables (2017).
128 World Bank (2016a).

networks. It should also include affordable, safe (gender-responsive) public transportation services in all main urban areas. These mobility programs would improve traffic management and introduce integrated transportation services for major urban centers.

- **Developing a national aviation policy for Kenya.** Such a plan would contribute to enhancing aviation security, modernizing the passenger terminal facilities at Jomo Kenyatta International Airport (JKIA), and strengthening the Kenya Airports Authority. It would also help sustain JKIA's recently attained status of Category 1 under U.S. aviation rules, which permits direct flights to and from the United States.
- **Creating greater vertical and horizontal integration in freight shipping.** There is a need to improve the coordination and infrastructure of all modes of freight transportation, including increasing efficiency at major ports and in last-mile rail distribution. Freight demand models need to be developed that account for the economic geography of Kenya and disaggregated freight flow patterns to maximize the utility of the planned standard gauge railway and inform decisions on last-mile connectivity.

There is a critical need to increase water development and management infrastructure while also investing in new water technologies. The National Water Master Plan prioritizes construction of 59 large storage dams and 17,860 small dams by 2030. In practice, there has been little investment, and of the few dams that exist, some 2,500 small to medium storage dams require strengthening for public safety and sustainability. Hence there is an urgent need to increase investment in strategic water storage, productive watershed management, interbasin transfers, water delivery works, last-mile connectivity to potable water distribution systems, farmer-led irrigation schemes, and water conservation and adaptation infrastructure, in addition to investment in nonstructural measures (e.g., land use regulations, flood forecasting, disaster preparedness). Such investments are required to meet the fast-growing water demand in urban centers, as well as in rural areas and marginalized regions such as the northern and northeastern areas to help achieve water and food security. Investing in water storage and management infrastructure could unleash the huge untapped irrigation potential to double or triple agricultural productivity and increase farm income while enhancing climate resilience in rural communities.

Advancing the continued development of geothermal energy would afford Kenya a unique opportunity to reduce the costs of power generation while increasing its share of renewable energy. Geothermal currently contributes more than 45 percent of total energy generated, making Kenya a global leader in the use of this renewable resource. The increasing share of geothermal in power generation has displaced energy from thermal plants, significantly reducing fuel costs passed through to end-users. A geothermal development strategy has been elaborated with World Bank support laying out the options to develop geothermal-based power generation by leveraging private sector participation. Public funding will be needed to de-risk upstream geothermal development (exploration and appraisal of reserves) to allow for private investment downstream (power generation using geothermal). KenGen, the generation company managing 70 percent of total installed generation capacity of Kenya, is exploring the public-private partnership model for geothermal development. In addition, competitively procured intermittent renewables (solar and wind) will reduce the cost of generation from clean energy sources. There are significant opportunities for further development of clean energy to meet future energy needs in Kenya without straining public resources.

Adopting new technologies such as battery storage would allow for integration of different types of renewable energy into a more sustainable national energy strategy. Use of disruptive technologies such as battery storage can provide Kenya with opportunities to use intermittent renewables (solar and wind) to complement hydro and geothermal in meeting future energy needs. With technological advances, battery storage can become a cost-effective way to store solar energy during the day to meet peak demand in the evening, reducing the need for costly peak generation from thermal. Exploring this option would also help limit the extent of additional capacity needed from intermittent renewables. The suitability of such technology needs to be explored in greater detail, with a careful analysis of load dispatch data to ensure that the most cost-effective generation options are used and supply costs are kept low.

4.1.6. Enhancing worker capabilities through integrated interventions on skills development, self-employment, and entrepreneurship

To enhance worker skills, multifaceted interventions will be needed to fill skills gaps, improve labor market information systems, and support self-employment and entrepreneurship. Low-skilled workers, especially youth, will need integrated employment programs to allow them to contribute to the economy more effectively. A metanalysis of 113 youth employment programs indicated that active labor market programs work better when they include multiple interventions, in particular when they combine interventions that cover supply- and demand-side constraints.[129] Training programs can work if

129 Kluve et al. (2019).

combined with socio-emotional and technical skills training and support for business creation. Investing in a broad set of skills, including nonroutine cognitive, digital, and socio-emotional skills, will be essential for increasing worker productivity and will be an important driver of inclusion.

To address the challenge of youth unemployment, it is important that the education system be reoriented to focus on job market needs, with a particular focus on skills acquisition and not merely on passing exams. On the labor supply side, demand-driven training that responds to labor market needs can be successful, as evidenced by the Kenya Youth Empowerment Program, in which private sector employers co-led and implemented training. Classroom-based training combined with skills and on-the-job training has proved to be broadly effective in raising employment, earnings, and job quality.[130] The Kenya Youth Empowerment Program, which included three months of classroom-based technical training and internships in firms for young adults, increased employment by 15 percent for male participants and also increased hours worked per week.[131] A critical feature of the program is that private sector employers led the technical training, ensuring that the training was catering to job-specific demand in the labor market.

One set of cross-cutting skills that deserves particular attention is socio-emotional skills, which are in high demand from employers in Kenya, in particular conscientiousness and teamwork. According to the Kenya 2016/17 STEP Employer Survey, conscientiousness is the most important skill that employers consider when deciding to retain workers, followed by numeracy, and teamwork. When describing the skill intensity of jobs, employers focus on transversal skills—reading and writing, numeracy, communication, conscientiousness—over technical skills.[132] Demand for such transversal skills is likely to increase with automation and technology.[133] On the worker side, findings from the 2013 STEP Household Survey indicate that openness (including creativity and flexibility) and conscientiousness (thoroughness and efficiency) are correlated with higher earnings.[134]

Investing in socio-emotional skills, among other types of skills, can yield important benefits for women in particular. Recent evidence from Togo found large increases in profits for women who received personal initiative training to help them think like entrepreneurs.[135] Evidence from Kenya, meanwhile, shows that business training that includes a specific focus on gender constraints,[136] as well as mentorship interventions, has yielded promising results for female entrepreneurs' profits and welfare.[137] Kenya's Ninaweza program is offering socio-emotional skills and ICT training to young women living in informal settlements in Nairobi. The program has led to a 14 percent increase in the likelihood of obtaining a job, higher earnings, and more self-confident participants.[138]

On the demand side, support for entrepreneurship also needs to combine access to start-up financing with entrepreneurship training, coaching, and teaching of personal initiative. Youth entrepreneurship schemes seem to have more positive results in developing countries than in developed countries.[139] Because youth face constraints in terms of financing and business knowledge, there is a need to provide them with both. The government is currently implementing a large-scale impact evaluation with a combination of start-up grants and business training.

Movement of trained workers into growing sectors and occupations must be facilitated by improving labor market information systems and the use of job-matching platforms. Productivity gains also accrue as workers move into more productive sectors, firms, and occupations or increase the amount of time spent on higher-productivity tasks. Workers will only know of growing sectors in time if the government collects better labor market information and the use of online job matching platforms is expanded.

4.1.7. Enhancing capabilities by leveraging digital technologies and fostering innovation

With 10.8 percent average annual growth since 2016, the ICT sector has been an important source of economic dynamism and job creation. More importantly, development of the ICT sector has significant spillover benefits into nearly every other sector of the economy, creating opportunities to adopt more efficient digital-centric business models and practices in the agricultural, health care, manufacturing, and services sectors. Recent World Bank research[140] suggests that digital transformation in Sub-Saharan African countries can increase growth by nearly 2 percentage points per year and reduce poverty by 1 percentage point per year. This effect can be doubled if paired with larger investments in human capital. The COVID-19 pandemic has further

130 Johanson (2020).
131 Honorati (2015). Because of high attrition of female participants in the endline survey, an equivalent increase in employment for women is not found to be significantly different from 0.
132 Sánchez Puerta, de Silva, and Rizvi (2018). The STEP Methodology defines "conscientiousness" in a worker as "does a thorough job, is hard-working, does things efficiently."
133 Sánchez Puerta, de Silva, and Rizvi (2018).
134 World Bank (2016b).
135 Campos et al. (2017).
136 McKenzie and Puerto (2019).
137 O'Neil, Brooks, and Hopkins (2018).
138 Alvares de Azevedo, Davis, and Charles (2013).
139 Kluve et al. (2019).
140 Calderon et al. (2019).

highlighted for firms the importance of maintaining a digital presence. Given social distancing guidelines, even if there were a market for a firm's products, it could not be accessed without the necessary digital architecture.

The advancement of digital technologies holds promise for improving productivity within informal firms. With more than 80 percent of employment being in the informal sector, it is important that policies be adapted to increase productivity in the sector. A recent World Bank report[141] found that building pathways to full formalization of the workforce in Africa has had limited success. Although that should remain a goal in the long term, short- to medium-term interventions should focus on building linkages between informal and formal firms, as well as upgrading worker skills and productivity in the sector. Adoption of digital technologies by informal firms has been identified as a catalyst for productivity enhancement, job creation, access to credit, and financial inclusion. Despite impressive growth in investment and uptake of digital technologies, too many Kenyans are at risk of being left behind. The significant social and economic benefits that accrue to digitally engaged individuals could deepen inequality if the digital divide persists. A digital divide is also bad for business because e-commerce and digital entrepreneurs depend on growth of a digitally active customer base to create the scale needed for success. Increasing access to affordable, high-quality broadband connectivity and the skills to use it affords an important opportunity for informal businesses to lower transaction costs significantly. It also creates the opportunity to overcome information barriers that small businesses (formal or informal) face in accessing new markets, lower sourcing costs, and increase access to credit.

Accelerating the adoption of digital technologies by Kenyan individuals and businesses has contributed to recent job growth and could be harnessed to have an even greater impact on medium- and high-skilled employment. It is widely believed that digitally enabled services will be the fastest growing segment of the global services economy. The services sector represents roughly 35 percent of total employment in Kenya and routinely accounts for approximately half of the country's GDP. Kenya's burgeoning digital services platforms employ an estimated 286,000 workers in areas such as transportation, logistics, and e-commerce.[142] Adoption of technology is proving to have a more positive impact on job creation for unskilled and lower-educated workers in low-income countries than in most higher-income countries.[143] Equipping Kenya's future and existing workforce with digital skills will open doors to new forms of employment as the country repositions itself as a hub for global digital business process outsourcing. The potential for growth is immense, given that a mere 7,000 Kenyans were working in business process outsourcing jobs in 2016, compared with more than 1 million in the Philippines. As more jobs require use of digital technologies, and job opportunities in digitally enabled firms or through digital platforms grow at an increasing rate, broadening the digital skills base will be crucial to protecting existing jobs and facilitating access to new ones. This agenda is of particular importance for youth employment. The government recognizes this and, through its Ajira Digital Program, is creating awareness among youth of work opportunities in the digital economy (domestic and global). It is also providing innovation hubs with free wi-fi, education, and training opportunities and access to work opportunities. Nonetheless, the reach of this initiative needs to be expanded if it is to decrease youth unemployment. Furthermore, this initiative is likely to benefit only segments of medium- and higher-skilled youth, whereas vulnerable youth who enter the labor market each year having barely completed secondary education would need other initiatives to support their employment.

Improving the innovation ecosystem will require intervention at the firm, sectoral, and institutional levels. There is an immediate need for support programs that improve the capabilities and management skills of firms. Technology extension services can address these market failures and engender organizational, managerial, and technological changes to increase productivity and competitiveness. At the sectoral level, there is a need for investment in human capital and infrastructure for innovation, as well as an increase in the supply of skilled labor, especially in science, technology, engineering, and math. Finally, given the current institutional vacuum in innovation policy, it is critical to finalize and implement the projected institutional framework in the Science, Technology, and Innovation Act of 2013. This would help better coordinate and design instruments, effectively diagnose and evaluate policies, and encourage dialogue with the private sector.

4.1.8. Strengthening regional trade integration and boosting participation in global value chains

Given underperformance in trade, regional integration holds great potential to boost productivity and growth in Kenya. However, this will require better subregional connectivity (physical and digital) and addressing nontariff barriers. Trade liberalization between countries should be deepened beyond merchandise to cover services, investment

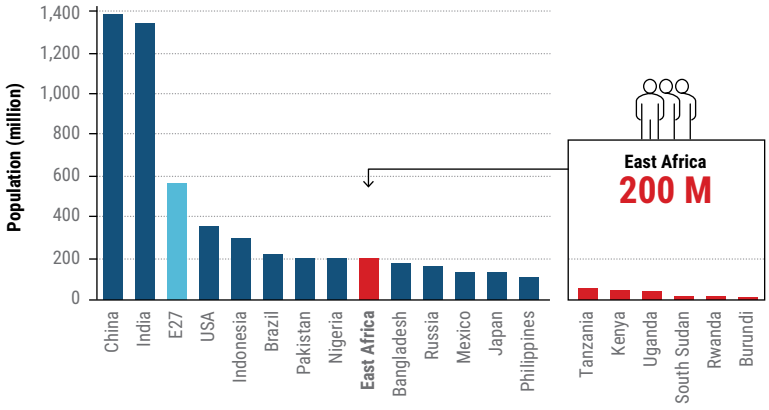
141 Choi, Dutz, and Usman (2019).
142 Insight 2 Impact (2018).
143 Choi, Dutz, and Usman (2019).

rules, and public procurement. Not only will this benefit Kenya, the spillover effects to other countries in the region will also be significant. Investments by Kenyan financial institutions across its borders in neighboring countries are already transforming the banking sector in these countries. Specific measures to boost trade could include:

- **Improving regional trade corridors.** Road transportation links between the East African countries have until recently received limited attention but offer significant potential, such as the road links to South Sudan, Somalia, Ethiopia, and the Northern Lakeside area of Tanzania. The rail link between Kenya and Tanzania was abandoned, and the Kenya-Uganda rail concession was terminated. Unlike in the past, when passenger and freight transport in inland waters, especially Lake Victoria, was thriving, transportation across the inland waters is now minimal. Use of the lake could provide significant connectivity between the East African countries and significantly reduce passenger and freight transport costs. The poor state of these trade corridors has been identified as a major bottleneck for regional trade, and it is imperative that these trade corridors receive attention.
- **Developing standards and quality infrastructure.** Kenya needs to develop its standards architecture in the regional context so that it can move toward greater standards compatibility, joint management systems, and mutual recognition. Such architecture should create conditions for enhancing trade within the region, avoiding any diverting effect on imports.
- **Leveraging the digital economy to spur regional integration.** An integrated East African digital market would be the ninth largest in the world, bringing significant benefits to Kenya's digital firms and consumers (figure 30). A more deeply integrated and competitive regional market would provide a "friendly" space for Kenya's digital firms to expand and mature before launching into the continental and global markets. It would attract significant new investment in digital infrastructure, expand domestic and cross-border digitally enabled services and goods trade, stimulate development of locally relevant digital content, and provide greater competition across the region. The World Bank estimates that implementing a single digital market in East Africa would generate a $1 billion to $2.6 billion increase in GDP and between 1.6 million and 4.5 million new jobs across the region. Digital market integration would also help close the digital divide within Kenya, with the biggest benefits accruing to those at the bottom of the pyramid who would be able to participate in the digital economy for the first time because of falling costs of telecoms services. Finally, the 2020 COVID-19 pandemic has underlined the importance of digital infrastructure as an alternative platform to allow for economic activity to continue in specific sectors despite major logistical impediments to production and trade.

Kenya could increase its export orientation by leveraging participation in global value chains. Firms with international exposure tend to be larger, more productive, and better managed.[144] Kenya's participation in global value chains is lackluster. A recent study found that unit labor costs were high and cost of capital in Kenya was more than nine times that of Bangladesh. To increase exports and participation in global value chains, Kenya could seek to boost foreign direct investment in its special economic and export processing zones by implementing the recently approved Kenya Investment Policy, which inter alia seeks to ease entry conditions for foreign investment. Furthermore, the implementing regulations for the Special Economic Zones Act, which was passed in 2015 but is not fully operational because of incomplete implementing regulations, must be finalized. Further complementary factors discussed in this section, such as standards, Internet and physical connectivity, education, and skills are also important.

Figure 30. East Africa is the ninth largest global market by population



Source: World Bank (2018).

144 Haddad and Harrison (1993); Bloom and Van Reenen (2010).

These changes should be accelerated by the recent free trade agreement with the United States.

4.1.9. Boosting agricultural sector productivity and output

Increasing agricultural productivity and output could provide a path out of poverty for many rural households. Although the reforms discussed in this SCD are meant to be cross-sectoral, given that agriculture is the main source of employment for the poor and one of the areas of Kenya's comparative advantage, this report considers measures in the agricultural sector that can help boost productivity growth. Marginal yields have improved little over the last 10 years for staple crops such as maize, as well as for commercial crops such as coffee. As a result, agricultural productivity has contributed little to poverty reduction in rural Kenya, in stark contrast to the experience of other countries in the region, such as Ethiopia. Boosting productivity in the agricultural sector will require policy interventions that can reduce prevailing market distortions and market failures and allow for the exit of less productive farms. Specific measures to boost productivity in the sector are discussed in box 10.

Box 10. Measures to boost agricultural productivity

Reforming the fertilizer subsidy program to ensure that it is efficient, transparent, and appropriately targeted will help raise yields. The current system of fertilizer subsidies, under which the government imports fertilizer in bulk and then redistributes it, is inefficient and introduces significant distortions into the market. The distribution system is regressive, with smallholder farmers not being the main beneficiaries, and farmers often receiving their fertilizer late. Furthermore, there are widespread allegations of corruption in the system. To increase productivity, especially for smallholder farmers, there is an urgent need for reform. The government should phase out the importation and distribution of fertilizer and leave fertilizer marketing functions to the private sector while providing effective regulation. As envisaged in Kenya's Agriculture Sector Growth and Transformation Strategy, the subsidy program should be moved to an "e-voucher" program using biometric registration, which would ensure a more balanced use of fertilizers and allow the program to be linked to soil testing and use of other critical inputs, such as seeds and post-harvest equipment.

Given the extremely low rate of arable land under irrigation, investments in agricultural water management could have a strong effect on livelihoods. Expanded irrigation systems would boost yields, allow for an increase in cropping intensity, and enable farmers to switch to higher-value crops—all of which would increase farm outputs and incomes. These benefits could be further increased because water management itself justifies the use of additional yield-enhancing inputs. Irrigation also helps increase farm size, allowing smallholders to benefit from economies of scale. The government could support several interventions in small-scale irrigation and water harvesting infrastructure and create schemes to promote private sector investment in medium-scale irrigation. The first priority should be to rehabilitate existing viable, sustainable irrigation schemes, focusing on those with the best prospects for success, regardless of whether they are located in ASALs or areas with greater agricultural potential.

An increase in livestock productivity would make important contributions to livelihoods and food security. The livestock subsector accounts for a significant proportion of agricultural GDP, as much as 45 percent by some estimates, that includes informal markets and secondary products. Pastoralism is the main livelihood strategy in Kenya's ASALs, where more than 75 percent of the population depends directly or indirectly on livestock for food and income. In these areas, poverty rates are mostly higher than the national average—greater than 80 percent in Turkana, Mandera, and Wajir. Constraints on livestock productivity can be reduced by improving breeds and animal feed stock, increasing access to extension and veterinary services, improving water infrastructure, linking pastoralists to markets, and developing the meat value chain. Further implementing measures to help pastoralists cope with drought will also be critical. In high rainfall areas, where poultry and pig production is growing rapidly, ensuring availability of feed at reasonable cost is essential.

Climate change variability already affecting agricultural productivity will escalate with additional climate change and needs to be addressed proactively to ensure sustained growth in the sector. Further policy measures to help climate proof the agriculture sector include increasing adoption of heat- and drought-tolerant varieties, which can achieve 20 percent to 30 percent higher yields than non-drought-tolerant varieties; improving water management systems, such as efficient surface irrigation, precision irrigation, and sustainable harvesting of aquifers; and developing agroweather forecasting, monitoring, and dissemination. There is room to build on the pioneering work of the Government of Kenya (its crop and livestock insurance programs protect vulnerable pastoralists in the ASAL counties) to strengthen the financial resistance of vulnerable households to climate shocks.

Fostering regional integration and ensuring a predictable trade policy environment will be essential for increasing value growth in the sector. Kenya is part of the Comprehensive African Agriculture Development Program, the African Union's regional policy framework for agriculture transformation. The country is making good progress in meeting its commitments under the program,

and the program will continue to be an important source of agriculture and rural development and to enhance Kenya's integration into regional agricultural markets. Working against these gains, however, is a highly unpredictable and discretionary approach to grain trade policy, the imposition of unanticipated export and import bans, and changing import tariff rates. Furthermore, government tenders are issued with opaque selection criteria for private firms to import grain at highly subsidized prices. Reducing government interference in grain pricing would allow market forces to promote a shift toward high-value, high-return cash crops.

Increasing land tenure security has been shown to have a stronger effect on productive investments made by female-headed households than by male-headed households. Women in the agricultural sector have less access to land, not only because of challenges in the formal legal code, particularly related to inheritance, but also because of the continued importance of customary law, the interpretation of which is grounded in uneven gender norms and thus often disadvantages women. Such barriers to ownership also reduce women's chances of accessing credit, because land is often required as collateral, reducing opportunities for entrepreneurship and growth. Creating specific initiatives to facilitate equal access to agricultural land would not only promote women's empowerment, but would also increase agricultural productivity overall. Evidence from neighboring Uganda from the World Bank Gender Innovation Lab, for example, demonstrates that informational nudges (i.e., providing information that slightly alters decision making) and conditional incentives can strengthen women's property rights over rural land. To develop feasible, effective policies, it will be critical to involve women in discussions to identify constraints and develop solutions regarding access to agricultural resources.

Promoting women's access to agricultural land would have a disproportionately positive effect on productivity. Agricultural extension services should be strengthened to spur productivity growth and adoption of new technologies. The positive effect of fertilizer and improved seed varieties has been well demonstrated in Kenya, with households that used chemical fertilizer experiencing a 20 percent increase in maize yields between 2000 and 2010. Despite these clear benefits, the share of farmers using these inputs changed little over that period. Policies designed to promote adoption of improved agricultural inputs by smallholder farmers, combined with a more competitive input market, could help increase household income and reduce rural poverty. Extension services and education campaigns could also increase diversification from cereals to high-value products such as fruits and vegetables. Extension services should be strengthened by implementing the National Agricultural Sector Extension Policy, which allows nongovernmental organizations to provide services. Furthermore, the technical and operational capacity of existing extension staff needs to be increased with more investment and training.

New digital technology has the potential to increase agricultural productivity and raise farm incomes. Applying new technologies in the agricultural sector can boost efficiency, increase competitiveness, and facilitate access to markets. A number of digital innovations are already disrupting the status quo and providing significant benefits to smallholder farmers and agribusinesses. Nonetheless, adoption is slow. The reach of the leading platforms and technologies ranges from 1,000 farmers to more than 600,000, suggesting reasonable uptake but also significant room to expand. Several start-ups are using technology to share agricultural knowledge and boost productivity. For example, Digital Green uses a video approach with highly localized content to amplify the effectiveness of extension agents, and Digicow offers voice-based training for farmers who lack access to smartphones. Furthermore, M-shamba, a Nairobi-based start-up, uses a voice platform and interactive short message service (SMS) messaging to link farmers to markets and provide information on agronomy and weather. Efforts to enhance adoption of these innovations could increase productivity.

Targeted investments in rural infrastructure such as roads, market and storage facilities, and electrification are also needed. Gaps in the provision of essential infrastructure drive up the cost of agricultural inputs and products and are a significant drain on Kenya's agricultural competitiveness. Poor roads also reduce market integration and prevent farmers from finding buyers for their produce. Electricity is expensive and often unavailable, which limits investments in cold storage, processing facilities, and irrigation, ultimately reducing the value of agricultural outputs. Coordination between ministries to ensure investment in better quality roads, rail services, and electricity will be essential.

Commercial opportunities should be enhanced across agricultural value chains. Private investments have already boosted growth in important agricultural subsectors such as cut flowers, horticulture, dairy, tea, and agricultural input markets. Kenyan farmers nonetheless still face major challenges in marketing produce, and the potential for adding value to products such as tea, coffee, pyrethrum, milk, beef, fruits, and vegetables is largely untapped. The government should facilitate private sector involvement in developing marketing infrastructure that meets regional and international quality and safety standards. Kenya also has an enormous opportunity to expand into a variety of agro-processing and value-addition activities. Necessary actions include removing restrictions on private investment in critical agricultural value chains, supporting farmers in gaining relevant certifications, leveraging cooperatives to organize farmers to benefit from economies of scale and relevant government interventions, and operationalization of the Warehouse Receipt System and the National Commodity Exchange.

4.1.10. Development of the blue economy and wildlife conservation

The government has started prioritizing the blue economy as the seventh sector to drive achievement of its Vision 2030 development agenda. Sustainable development of the blue economy will require strategic planning by integrating economic development with environmental management, fiscal policy, and social goals. In parallel, the enhanced well-being of rural coastal communities will require better governance and management at all levels to generate greater returns from the fisheries sector. Strengthening sovereignty over offshore fish resources would also increase benefits to coastal communities and to the national economy as a whole. One strategy would be to domesticate a greater portion of the high-value offshore catch by developing relevant facilities at ports and a national fleet of offshore vessels operating out of Kenyan ports that could potentially displace foreign vessels over time. This would require a greater regional effort in managing fish stocks; greater monitoring of illegal, unregulated, and unreported fishing; and research targeted toward understanding sustainable levels of resource extraction. Given the adverse effects of marine litter on fisheries, tourism, and biodiversity, sustainable waste management will also be fundamental for effective delivery of the government's commitments under the blue economy framework. The government will need to rigorously pursue its commitments, including the August 2017 ban on single-use plastic bags and the June 2020 ban on single-use plastics in protected areas. The implementation of an inclusive, multi-sectoral, circular economic approach is needed to change behavior and foster technological innovation, private sector intervention, and social inclusion. Engagement of county governments with communities (including waste pickers and women) is critical.

Support for wildlife conservation in Kenya would contribute significantly to job creation and environmental sustainability. According to the National Wildlife Strategy (2018–2030), nature-based tourism contributes more than 10 percent of GDP and is a leading employer, accounting for 9.3 percent of total employment. At the same time, recent analytical work[145] shows that wildlife biomass is in dramatic decline. In the past three decades, the country has lost more than 60 percent of its wildlife according to data from the Directorate of Resources, Surveys and Remote Sensing.[146] The National Wildlife Strategy identifies priority deliverables, including maintaining and improving habitats and ecosystem integrity; enhancing species conservation and management; and increasing access, incentives, and sustainable use of wildlife resources while ensuring equitable sharing of benefits.

4.2 Reducing inequality of opportunities through advancing human capital

The diagnostic component of this SCD highlights several constraints on human capital formation that are hindering Kenya's progress in increasing output growth and boosting shared prosperity. Human capital consists of the knowledge and skills accumulated over a person's lifetime, in combination with good health. Human capital formation is an essential driver of economic growth through increased productivity. Consequently, disparities in rates of human capital accumulation can severely widen welfare gaps between socioeconomic groups over the medium and long terms.

Investing in building human capital will be an essential pathway to development in Kenya. It will mean investing in people through health care, nutrition, quality education, skills training, and the creation of productive jobs. This should be carefully implemented alongside improving public wage bill management and enhancing performance management and productivity, which will in turn contribute to higher GDP and ultimately transform Kenya's economy. Efforts to mainstream a performance culture in the civil service would be greatly bolstered by a review of the existing legal framework that fragments performance management practices and policies. Subsequently, a national performance and productivity policy should be developed to guide, streamline, and standardize public sector performance management across all levels and agencies of the government. Human resources policies and practices that encourage optimal performance and a well-functioning reward and sanctions system must be implemented.

Many of the initiatives of the first pathway will have strong positive effects on the second pathway. Measures taken to boost productivity and create jobs in the Kenyan economy will not only be beneficial for aggregate growth, but will also reduce inequality and promote human capital formation. For example, increasing access to credit for MSMEs will help to level the playing field for Kenyans wishing to start small businesses and allow entrepreneurs to hire and train more workers in their communities. Similarly, skills development and training will give previously unskilled workers access to better quality jobs. Concerning spatial inequality, building better transportation networks will help connect workers with jobs and allow smallholder farmers to sell their produce in other markets. In parallel, bringing broadband Internet connections to rural communities will provide these populations with access to previously unavailable information and skills training.

145 World Bank (2019d).
146 Ibid.

Given the overwhelming importance of agriculture as a livelihood for the rural poor, increases in productivity through fertilizer subsidy reform and irrigation schemes would be most beneficial to smallholder farmers. Finally, addressing corruption in public sector service delivery would mean greater spending efficiency at the local level and consequently greater access to services for the poor. Although the first and second pathways are presented separately in this SCD, there are strong synergies between the two, and the identified initiatives are fully complementary in pursuit of the twin goals.

A particular focus on rural areas will be required. Low-quality jobs, mostly in the agricultural sector, do not provide strong opportunities for learning by doing or for the development of transferable skills. In rural areas, lack of financial resources and a tendency toward late enrollment in primary school have a negative impact on transition rates between primary and secondary levels of education. Given that constraints on accumulation of human capital are stronger in rural Kenya, policy initiatives should pay specific attention to these regions.

Development of human capital in women and girls faces additional constraints that will need to be addressed directly. Although the country has made important gains in closing gaps in education and reproductive health outcomes, disparities remain, particularly at the regional level. The existing gaps are influenced in part by social norms that contribute to high rates of early marriage and childbearing, with negative implications for dropout rates, maternal mortality, and complications in pregnancy. Gendered divisions of household labor and time use limit women's economic opportunities and participation in the labor force, notably with women's disproportionate responsibility for childcare and domestic tasks. Addressing gender disparities and empowering women would reduce fertility, promoting human development and economic growth by balancing dependency ratios. Specific initiatives will also be required to lower rates of sexual and physical violence. If not addressed, these deeply entrenched norms will work against progressive, well-intended policies to promote gender equality.

4.2.1. Health

In terms of lost productive capital for Kenya, the long-term costs associated with underinvestment in health are massive. This SCD has identified constraints, including limited access to health care facilities for the poor, high out-of-pocket health care costs, and a concentration of health care human resources in cities. There is an urgent need to scale up spending on health care and launch a battery of priority interventions to ensure the steady growth of human capital for future generations. The expansion of programs to improve nutrition and reduce rates of stunting will be essential to ensure that children reach their full productive capacity when they become adults in the workforce. High child and maternal mortality rates should also be the focus of major public policy interventions. Not only should public resources for health be increased, but there is also a need to improve the efficiency of health spending, notably by strengthening strategic purchasing.

Changing the focus of existing health care initiatives can also unlock human capital in the short term. There is an opportunity to reengineer primary health care in the country, with a new focus on preventive services and health promotion. The government will need to continue its support for addressing communicable diseases to reduce morbidity and mortality. In parallel, support for prevention and treatment of non-communicable diseases will need to be scaled up, through financing and new pilot initiatives. The government has identified achieving universal health care coverage as part of its Big Four Agenda, and progress is being made. Health indicators have been steadily improving, and the incidence of catastrophic health expenditures is declining.

The effect of existing public health care resources can be greatly enhanced through specific policy initiatives. The productivity of health care workers should be improved by ensuring an appropriate mix of skills among staff and a more balanced distribution of resources. Maintaining a good operating environment will allow the use of existing resources to have the greatest possible impact on health outcomes. It will be equally important to ensure that the right incentives for health care workers are in place, including appropriate payment mechanisms. The authorities should take steps to guarantee the sustainability of health care financing, particularly for priority programs. This should include adopting common mechanisms to budget, track, and control withdrawals from consolidated and county revenue funds and to account for and report on conditional grants issued to health care facilities. Finally, absenteeism (sanctioned and unsanctioned) should be addressed.

Institutional mechanisms to promote collective action on health care service delivery require enhancement. Multidisciplinary and multiagency efforts should be strengthened, including inter- and intragovernmental collaboration within the sector, which to a large extent are devolved to ensure needs-based financing of initiatives in counties where the national and county governments agree on how their respective roles and responsibilities in the sector should be implemented.

4.2.2. Education

Kenya needs to aim higher in educational attainment as a means of increasing human capital accumulation in the long run. This SCD has identified constraints, including socioeconomic disparities in net enrollment, the large number

of vacant teacher posts, the low quality of teaching, and high out-of-pocket costs for secondary education. Kenya will need to make strategic long-term investments to harness human capital as a pathway for increasing output and shared prosperity. Effective strategies include schooling for learning[147] (i.e. focusing on learning outcomes and student proficiency), increasing the efficiency of spending, and addressing wide regional disparities (including in gender) particularly for the arid and semiarid regions. Promoting collective action, cooperation, and coordination between actors in the sector will be required to ensure a common approach for implementation of policies and strategies.

Increasing secondary school enrollment rates among the poor will require demand-side interventions. Targeted support will be essential for creating equal opportunities for children from all socioeconomic backgrounds. Scholarships, in-kind support, and cash transfers have all proven effective in increasing enrollment rates. Strong advocacy will also be needed to help ensure that girls remain in school in regions where the gender gap in the dropout rate is severe.

Improving the quality of teaching will require multiple interventions. The education system could benefit from the greater use of contract teachers to fill vacant positions, with an "up-or-out" promotion system in which the best-performing contract teachers are given full-time employee positions. A new and still unproven monitoring and evaluation system requires all teachers to be systematically and regularly evaluated, with performance linked to employment benefits and the credible threat of termination. Matching teacher incentives with student learning objectives will be critical for attaining better outcomes in public education.

Multi-sector approaches will be needed to improve learning outcomes and reduce disparities between students. There is strong evidence of the efficacy of nutrition and water and sanitation programs in improving learning outcomes in Kenya. School feeding has been shown to boost test scores,[148] hygiene promotion has been found to raise student attendance,[149] and deworming has been shown to improve primary school completion rates.[150] Solutions from outside the education sector will thus be essential for boosting human capital formation through education.

Investments in early childhood development, both inside and outside the school system, should be prioritized. Service delivery in the preprimary subsector has been weakened by a lack of coordination between national and county governments on preprimary education, as well as the absence of a structured quality assurance framework. Significant gains in access to preprimary education have nonetheless been realized through the devolution of preprimary services, with the net enrollment rate improving from 70.4 percent in 2013 to 77.2 percent in 2018. A focus on early childhood development could yield positive spillovers for primary caregivers; select studies highlight that steep child care costs constrain women's labor force participation and girls' schooling.[151] Emerging evidence from experimental interventions confirms these findings and indicates that married women in Nairobi who receive child care vouchers are more likely to be employed.[152]

Tertiary education in Kenya must also be improved. The government must find a way to expand access in an equitable and financially sustainable manner, improve the quality and relevance of the programs offered, and strengthen university-based research and technology transfer. Improving quality and relevance will require a combination of interventions: better preparation of incoming students, enhanced qualification of academics, innovative curricular and pedagogical practices, closer links to industry, and increased internationalization.

School financial management systems should be harmonized with those of the central government, and the disclosure of financial and nonfinancial information relating to schools should be improved. Harmonization of the education budget's structures (including providing vote heads at national, county, and institutional levels) is required. The quality and methodology applied in audits is highly variable and different from that of mainstream government, with limited capacities in certain areas of expertise (e.g., value for money, performance audits). Past expenditure data and information about transfers to schools should be made available via the Hyperion module of the Integrated Financial Management Information System. This information should also be simplified and made available to stakeholders inside and outside government in a searchable form on an online platform that provides access to a library of budget documents.

Extending broadband connectivity to all schools would enable distance learning capabilities that are critical in the case of a pandemic and more generally to enable students from rural areas or those facing other challenges to access educational resources. Many of the classrooms provided with equipment under digital literacy programs lack connectivity, requiring all content to be loaded manually onto computers. This not only

147 Bashir et al. (2018).
148 Omwami, Neumann, and Bwibo (2011).
149 Freeman et al. (2012).
150 Ahuja et al. (2015).
151 Lokshin, Glinskaya, and Garcia (2004).
152 Clark et al. (2019).

limits the ability of teachers and students to access additional content from the Internet, it also does not enable them to learn how to operate in an online environment. Other areas to address include improving the e-cloud infrastructure at the Kenya Institute of Curriculum Development to enhance mass delivery of the lessons, digitizing all curricula and assessments so that they can also be delivered online in regular situations, and training teachers in development and delivery of quality online-based curriculums and assessments.

4.2.3. Water, sanitation, and hygiene

Kenya should scale up investments in safely managed water, sanitation, and hygiene (WASH) infrastructure and institutions to help boost the development of human capital. Particular efforts should be made in sanitation, which is at the center of the government's Big Four Agenda and the region's open defecation Africa vision. Because of the multi-sectoral nature of human capital development, interventions aimed at combating undernutrition and stunting will not be effective unless they include a WASH component. The global COVID-19 pandemic has dramatically highlighted the importance of water and sanitation infrastructure in combatting infectious disease. When these investments are being made, the functional divide between water and sanitation must be resolved at the policy and operational levels. For sanitation, institutional mechanisms will need to be established to allow for effective cooperation and coordination between the water, environmental, and health management agencies. The fragmented approach that has been used to manage sewerage, fecal sludge, solid waste, and hygiene separately must change, and Kenya should adopt an integrated, inclusive approach to sanitation covering all elements along the supply chain, such as city- and county-wide inclusive sanitation. Similarly, an approach such as integrated urban water management should be promoted for water management and service delivery in urban areas.

Kenya needs to diversify its financing strategy and attract private investment to close the financing gap in the water sector. A recent water sector debt study by the World Bank and the Water Services Regulatory Board indicated that most water service providers, county water utilities, and regional water service boards are heavily indebted and at risk of becoming unsustainable.[153] This high demand for water infrastructure financing has to be met through a combination of dedicated public budget allocation and blended financing, especially in marginalized and underserved regions. This will require an improvement in the operational and financial performance of water and sanitation service providers to enhance their creditworthiness. Output-based-aid water and sanitation projects that the World Bank has supported in Kenya have attracted some $30 million for pro-poor water and sanitation access expansion and have demonstrated the huge potential of domestic commercial financing.[154] However, sufficient private capital cannot be leveraged with the current weak governance structure and inefficiency of water utilities. Government at the national and county levels will need to implement serious reforms to strengthen the governance of water utilities and to fast-track development of water tariff and pricing policies. Such measures would increase the financial sustainability of services and service providers and mitigate the risk of elite capture.

Kenya's underperforming water utilities are also creating a fiscal burden for the government. Deficits persist because of a constellation of challenges, including low bill collection rates, excessive losses due to inefficient operations or theft from the networks, and tariffs set below cost-recovery rates.[155] These inefficiencies result in unintentional implicit subsidies that can be considered an illegitimate claim on public resources. Unlike direct subsidies, which are formally allocated and recorded on the utilities' books, "hidden" costs, although accumulated by utilities, are unrecorded, placing a fiscal burden on the local or national government that amounts to a hidden subsidy. Typically, utilities compensate for these hidden costs by reducing investment in maintaining their assets. They may also delay or forgo essential maintenance and repairs, which can trigger a downward spiral of deterioration in the value of assets, declining service quality, and increasing costs for each unit of service provided. When this happens, losses are substantially greater, and abnormally high investment is required to make repairs. This vicious cycle—which begins with hidden costs and proceeds to hidden subsidies—means that, when governments finally absorb accumulated debts, they add to the national debt or must reduce funding for other programs. There is therefore a need to invest in Kenya's water service providers by deliberately linking public financing to verifiable improvements in operational efficiency. Improvements in operational efficiency would boost financial performance and enable water service providers to contribute to capital investments through increased cash flows.

4.2.4. Social protection

The expansion of social protection programs will be important for helping the poor increase their own productive potential. Given its far-reaching implications for medium- and long-term

153 Water sector debt study report (draft), World Bank/WASREB, January 2019.
154 Implementation Completion Report of OBA Nairobi Sanitation Project, World Bank, January 2019.
155 WASREB (2019).

productivity growth, the potential benefit of investing in human capital is considerable, for individuals and for the economy as a whole. Given the global economic impact of the COVID-19 pandemic, social safety nets will be even more critical in addressing the needs of the poor and vulnerable households that are more likely to fall into poverty during an economic contraction. Although the full impact of the pandemic is still not clear, Kenya may need to follow the lead of other countries in rolling out an ad hoc safety net to cover basic needs to lessen the dramatic fall in consumer demand.

The government is committed to moving beyond cash transfers to an integrated social protection system to enhance the social and economic inclusion of the poor and vulnerable. Although the achievements of the National Safety Net Program are impressive, social protection systems can be further developed. For example, although the Single Registry helps avoid duplication in cash transfers, it does not provide welfare information on potential beneficiaries for existing or new programs. To better integrate social protection systems, the government aims to make greater investments intended to improve delivery systems and institutional capacity, as well as coordination and partnership arrangements.

The immediate priorities should be to increase the coverage of the poorest households and reassess the adequacy of benefits, preferably by indexation with inflation. To enhance institutional capacity, particular focus should be placed on the coverage and functionality of the Single Registry, as well as continuing to increase the efficiency of other delivery mechanisms. To boost the self-sufficiency of poor and vulnerable households, the government should expand the existing nutrition-sensitive safety net. To improve the shock responsiveness of the safety net system, the government should expand its coverage and strengthen financing arrangements for enhancing households' resilience and providing support to cope with recurrent droughts.

A social registry able to identify households most vulnerable to shocks, such as drought and pandemics such as COVID-19, would allow the government to address vulnerabilities more swiftly. The COVID-19 pandemic is likely to affect poor and vulnerable households more severely than better-off households, but specific impacts—for example, mobility restrictions on workers in different sectors—require that mitigating social protection measures be targeted not only to poor and vulnerable households. In addition, budget constraints necessitate selectivity in targeting. A social registry should be in place that allows for timely identification of potential beneficiaries based on specific characteristics that expose individuals to a shock.

It is critical that the Government of Kenya develop viable options and a robust system of social insurance for workers in the informal sector. Of the 16.8 million people employed in Kenya, 14 million are self-employed or work in the informal sector and thus have no access to traditional social insurance schemes. Although there are two major schemes for informal sector workers (the National Social Security Fund's Haba Haba scheme and the Mbao Pension Plan), they both face low uptake, high administrative costs, and a high rate of withdrawals. It could be possible to scale up these schemes cost-effectively by creating a specialized administrative platform that can better manage the small and varying contributions of informal sector workers, as well as making information more readily available to its members.

4.2.5. Digital technologies

Digital technologies present opportunities to disrupt business as usual and address Kenya's stubborn constraints on human capital development. Constraints that can be addressed using technology include lack of access to classrooms in rural areas, poor quality teaching, lack of access to health care services, and inefficiencies in administration and targeting of social protection schemes. Online learning and digital curricula can open opportunities for students regardless of teacher quality and geographic location, and GPS-based attendance and automated student outcome performance monitoring can make it easier to reward and correct teacher performance.[156] A self-motivated individual can have a world of information and experience at their fingertips through the Internet and digital platforms such as YouTube to build their skills as auto mechanics, plumbers, or videographers. Social protection payments and other voucher schemes can be administered using mobile money, linked using the new national identification number (Huduma Namba) at low administrative cost and with little hassle in even the remotest areas. Through the innovative use of data, access to credit and insurance can be enabled for those without a formal credit history or collateral. A mother in a rural village can get advice from a doctor in Nairobi (or even Mumbai) on her mobile phone without the need to undertake a costly, time-consuming, potentially dangerous trip to a distant clinic. None of these opportunities will be possible without widespread access to affordable connectivity and digital financial services.

The health care sector has already made significant efficiency gains through the invention and implementation of digital solutions. Technological innovation can be especially effective in health care at the county level, where resources have traditionally been much weaker than in urban centers. Several health care technology–focused start-ups

156 Economist (2018).

have made significant strides in the county-level technology ecosystem. One example is Nyumbani Medics, a web platform that connects qualified health care practitioners to patients in need of health care services. In parallel, the growth of mobile money has created opportunities for paying insurance premiums and for other health-related transactions. New digital platforms have begun to change public health care administration, augmenting the efficiency of core services, reducing unnecessary duplication of registries, and increasing the security and traceability of transactions. Digital platforms already launched in the health care arena include the Health Management Information System and the Biometric Hospital Insurance Management System. Implementation of a robust digital identification platform would give Kenyans easier access to basic health care service and create efficiency gains in diagnosis and treatment by improving the management of hospital records.

Kenya has made a concerted effort to embed digital skills in the national education system, but access to critical enablers is still lacking. Policies and programs promoting the use of ICT for teaching and learning are formally in place, including a competency-based framework that features digital skills. Flagship initiatives such as the Digital Literacy Program have sought to better integrate ICT into the education system. Nevertheless, insufficient teacher training and lack of digital devices and connectivity have hindered training delivery and skills attainment. The Digital Literacy Program covers 93.4 percent of public primary schools (providing connectivity, devices, and electricity), yet only an estimated 36 percent of schools are fully using the equipment as intended.[157] Secondary schools fare far worse in terms of connectivity and access to devices, and the curriculum fails to offer digital skills as a stand-alone compulsory course. Alternative learning methods such as private sector–led training and certification schemes can also be used to bridge the skills gap.

A handful of technical and vocational education and training (TVET) institutions and universities offer advanced information technology courses, but the pipeline of digital talent still faces significant constraints. Factors holding back the development of digital skills include weak enrollment in the STEM fields (science, technology, engineering, and math), low completion rates, and the limited relevance of the training on offer. Many universities teach outdated coding languages and focus on theory rather than application, leading to a shortage of workforce-ready graduates. Several informal education programs (e.g., coding bootcamps, artificial intelligence learning programs) run by the private sector have helped address this skills mismatch and have been successful at placing graduates, but these initiatives are restricted to major cities and have struggled to grow.

157 World Bank (2019a).

4.3 Improving governance for service delivery

4.3.1. Establishing effective and accountable institutions

The fight against corruption will need to be intensified to reduce business transaction costs and improve service delivery by the public sector to the private sector. Reducing corruption would help to spur increased private investment, productivity growth, and job creation. Although the current administration has recently stepped up its anti-corruption efforts, more needs to be done, and government institutions will need to be reinforced. Transparency in public procurement will need to be improved, and in the private sector, corporate governance should be strengthened. Confronting corruption and promoting performance and accountability for service delivery (rather than taking punitive actions such as arrest and prosecution) would increase sustainability. Digital technologies should replace face-to-face interactions in providing government permits, licenses, approvals, and incentives, but these technologies must promote transparency, accountability, and accessibility to avoid becoming a constraint. The backlog of court cases must be addressed, particularly those related to corruption, commercial infractions, and land title. Systemic improvements should also be made to shorten the time it takes to resolve court cases.

Establishing effective public institutions and systems is a multifaceted task involving the interrelationship between national and county government institutions and between state and non-state actors regarding public policies, practices, institutions, and outcomes. Efforts to create new governance arrangements in Kenya need to factor in corruption, given the role that it has played in how public institutions have worked in the past and because of the distortions that corruption can create in policy formation, implementation, and outcomes. Successful programs to reduce corruption are specific and outcome focused, combining changes in policies that reduce opportunities for corruption, for example, the radical simplification of tax regimes, moving away from the distribution of subsidies, and targeted work confronting corrupt practices and individuals. The latter efforts are most effective when they combine steps to prevent corruption with improvements in institutional performance, efficiency, and outcomes. Overall, constructive engagement on corruption involves policy changes; specific acts to fight corruption; and improvements in access, transparency, accountability, and performance.

It will be important to strengthen incentives for collective action in identifying and resolving constraints that are focused on service delivery outcomes rather than institutional or individual inputs.

Critical to this process is a certain level of flexibility to respond to the changing nature of problems over time and identification of relevant stakeholders to collaborate with. For instance, improving management of public resources involves addressing constraints such as human resources and system capacities; ensuring that entities transparently and adequately allocate, manage, and report on public finances; and developing a robust, accessible citizen feedback mechanism. Stakeholders would include the National Treasury, sector ministries, county governments, state corporations, sector facilities, and state corporations. These actors need to agree on the problem, changes required to address the problem, and appropriate steps to be taken (sifted from a wide range of identified actions). Limited coordination between institutions and between national and county governments undermines delivery of services and prevents effective implementation of policies. A collective solution to governance challenges has the potential to address problems sustainably.

Broadening the "bargaining space" for policy making would make it more inclusive. There is a need to ensure meaningful participation of all relevant players so that their interests are effectively rebalanced and no group is systematically favored over another. Inclusiveness in policy-making processes will ensure enhanced accountability and weaken the "silos" approach to overcoming challenges. However, doing so is challenging because the mechanisms for public participation are not robust; not all counties have established mechanisms through which the voices of ordinary citizens can influence decision making. Furthermore, information asymmetry is a challenge in relationships between counties and the national government and between national government ministries and counties. Addressing this will improve relationships in different sectors of service delivery.

Addressing corruption effectively requires the visible demonstration of concrete results, some of which are related to holding people publicly accountable for illicit behavior. Public trials and convictions for corruption offenses can demonstrate a commitment to punish misbehavior and indicate that no one can act with impunity. Confronting systematic corruption requires systematic ways to identify corrupt acts. Effective mechanisms for handing down administrative sanctions are also important given the cost and time required for criminal convictions.

At the same time, simply increasing the number of criminal convictions or administrative sanctions for corruption is unlikely to have much effect on overall levels of corruption. It is therefore important to identify focal areas for anticorruption work that can serve as the leading wedge for reducing corrupt practices. Reducing corruption in public procurement, for example, has the potential to have a dramatic and noticeable effect on the prevalence of corruption overall. Reducing corruption in other sectors, such as health care, or enforcing business regulations may also generate concrete improvements in people's lives and establish a true reform momentum.

The lack of clarity in institutional and organizational mandates, functions, and management systems in many instances works at cross-purposes to the overall objective of improving performance and increasing productivity. National and county governments continue to conflict over mandates, roles, and responsibilities. Laws are in place, but there are multiple interpretations of the meanings of various provisions. Overlapping roles in public sector institutions and between national and county governments about devolved functions create dysfunction and additional unnecessary bureaucracy, leading to delays. Public service management information systems are not integrated, leaving gaps, creating overlaps, and generating operational inefficiencies. Although there is universal appreciation of the capacity constraints on county governments (and the role of the national government in addressing this), a coherent, structured approach has not been properly developed or implemented.

Investing more resources in strategic planning and public investment management would increase spending efficiency and help build synergies between branches of government. A renewed focus on coordinated strategic planning will be critical for achieving development outcomes over the long term. Clearly defining collective goals makes it easier for different branches of government to work together and to share limited public resources. Capacity building with respect to public investment management would help ensure that infrastructure projects and other major public initiatives are completed on time and within budget and that the impact of these projects is properly understood and measured. In addition, large-scale procurement contracts would benefit from new digital solutions, greater transparency, and deeper citizen engagement to ensure open competition and to mitigate efficiency losses due to corruption.

4.3.2. Strengthening devolution to enhance service delivery

The 2010 constitution and its implementation have fundamentally changed the overall governance framework of the country and how public goods and services are delivered. As noted in Chapter 1, not only did the constitution introduce a range of checks and balances on the powers of the national executive and government, it also devolved significant public sector responsibilities to county governments, each with its own elected governor and legislature.

Devolution has largely been a political success and has widespread popular support. Kenya began its ambitious process of devolution in 2013, when 47 county governments were elected alongside the national government. Five

years into this process, devolution has largely been a political success: "devolution has established a robust tier of government that Kenyan politicians and voters are deeply invested in."[158] County governments have rapidly established themselves as crucial elements of Kenya's political system. Devolution has also emerged as one of the main areas for optimism with respect to addressing corruption, given that recent audit reports show a positive trend across the 47 counties and include a small number of counties with clean audits. The Building Bridges Initiative—a government-commissioned study on how to promote reconciliation following the disputed 2017 election—largely endorses this positive evaluation of devolution.[159]

Devolution in Kenya means that service delivery depends simultaneously on county governments and the national government. Since 2013, county governments have taken on extensive responsibilities for the management, financing, and delivery of a wide range of public sector functions. To assume these responsibilities effectively, counties can make subnational laws and raise their own revenues, have access to a constitutionally-approved share of national revenues, and have extensive human resources management powers. With county governments at the frontline of service delivery in many critical areas (health care, early childhood education, agriculture, roads, water), achieving the twin goals calls for strengthening the devolution process and increasing counties' capacity to deliver. Drawing heavily on the provisional conclusions of an ongoing joint Government of Kenya and World Bank study, "Making Devolution Work for Service Delivery," some specific recommendations to support in this regard are discussed in the ensuing paragraphs.

If properly implemented, devolution can significantly improve governance by ensuring that authorities are more directly accountable to citizens. The ultimate success of the devolution process will depend on the extent to which citizens are able to participate in decision making and have mechanisms through which they can hold their executives accountable. In principle, devolution means that county governments are more proximate as service providers, making it easier for citizens to engage with them and ask questions about what they are doing or not doing. In practice however, many county governments still lack the technical approaches, skills, and tools to facilitate effective participation forums. Ways need to be found to create meaningful participatory processes with respect to service delivery chains and their operations and not just regarding fragmented infrastructure investments that aim to provide everyone with something. In addition, the County Integrated Development Plan process should be strengthened to achieve its objective of efficient, equitable service delivery based on citizen needs. Given that citizen oversight groups have not always been effective or sufficiently autonomous, it will be important to encourage civil society organizations to better organize and support them through capacity building. Greater capacity is also needed for county assemblies, in particular their technical committees and support structures, in addition to strengthening their links with national oversight bodies. Finally, the within-county marginalization of small ethnic groups and minorities is evident in many counties and has consequences for equitable distribution of services. A broader set of county-specific policy approaches to increase ethnic inclusion should be considered within the county executive and public service, and village-level information should be collected on the needs of marginalized groups.

The division of functional responsibilities between levels of government needs to be clarified. Although Schedule 4 of the Constitution provides overall normative guidance on the two-tiered distribution of service delivery responsibilities, in practice, there are ambiguities, inconsistencies, and duplication. It will also be important to eliminate service delivery vacuums that arise when neither the national government nor the counties assume responsibility for a function. Responsibilities in the agricultural sector, for example, are confusing, and clarification will be needed. In the urban water supply sector in particular, there is a pressing need to rethink and clarify functional responsibilities to put in place a workable planning and finance process.

The adequate funding of devolved functions will be essential to ensure provision of accessible, high-quality services at the county level. The success of the devolution project will depend to a large extent on ensuring that "finance follows function," through own-source revenues or appropriate intergovernmental fiscal transfers. The vertical sharing of national revenue between the national government and county governments is heavily skewed in favor of the former. Even though counties are constitutionally responsible for delivery of most public goods and services, they account for only 15 percent of total public expenditures, with the national government accounting for 85 percent. The current resource allocation formula used to distribute shares equitably among the 47 counties is based on a generic index of expenditure needs and should be revised to ensure a closer link with service delivery responsibilities. In areas where there is a lack of clarity in functions, sector ministries tend to retain budgets rather than devolve them to counties. A common streamlined framework for conditional grants should be enacted, within which sector grants would help address vertical imbalances within sectors while supporting national policy objectives

158 Cheeseman et al. (2019).
159 Government of Kenya (2019).

Box 11. Enhancing accountability through participatory governance: The case of Makueni County

Through participatory development Makueni has transformed itself from a net recipient of food aid to food self-sufficiency, as the Cabinet Secretary for Devolution and Arid and Semi-Arid Lands acknowledged during a structured peer learning exercise organized for governors and their technical teams: "It is amazing that we can come for a visit to Makueni County and be gifted with food to take back. Previously, as the government, whenever we heard about Makueni, we would always think we needed to provide relief food." The county has implemented effective, value-for-money projects that cut across health care, water, and agriculture that the public has endorsed through participation.

How has the county been able to achieve this? Development projects in Makueni undergo a citizen prioritization and validation process using a structured multitier decision-making model that starts at the village level and moves upward to village clusters, sub-wards, wards, and finally the county forum. At each of these levels, the community selects a development committee comprising 11 citizens to represent the project priorities that the community has identified at the next level of engagement. County officials conduct a technical evaluation on the feasibility of projects before citizens arrive at final decisions.

By shifting decision-making power to the citizens on the kinds of projects they want to implement, Makueni County has significantly altered patronage politics, wherein elites exchange public resources and material goods for electoral support. Although the Members of County Assembly in charge of the wards approve the budget that the county executive presents, it is difficult for them to override citizens' decisions on the ward-level budget and introduce new projects given the elaborate participation structure, which logically traces how projects emerge from the village level upward. At the county forum, which governors and the Members of the County Assembly attend, citizens present their ward-level projects to the governor, who acknowledges these by signing them as a true record of the citizens' choices. Citizens are also given an opportunity to verify that the investment projects reflect what they agreed upon.

Assigning a given portion of the county budget to citizens' decisions enables citizens to budget with a specific ceiling in mind, which manages their expectations and reduces the wish lists of projects that are often presented to governments operating on limited budgets. This builds the credibility of the budget process, increasing trust between the county and citizens.

Citizens are further engaged in budget execution when project management committees comprising democratically elected community representatives oversee the implementation of projects. This has greatly increased accountability in the use of county funds and of county officials.

"The people of Makueni County do not just give us views, they must approve the projects and ensure that they have been completed to the people's desire before the county can process the payment," said Governor Kivutha Kibwana of Makueni County.

During the public budget forum for the 2020/21 budget, citizens took county officials to task over what they felt was slow implementation of some water projects. The citizens had also engaged their Members of County Assembly to report the slow execution by the county executive, and assembly members were able to make follow-up demands of the county executive to address the matter. The county executive responded by setting up a rapid results implementation committee comprising the sub-ward and ward administrators, sub-county administrators, and department heads, that evaluates implementation of the budget, reviews the progress of projects, and identifies challenges and addresses them to ensure that projects are completed by their deadlines.

and county-level service delivery. Finally, and perhaps most importantly, county own-source revenues are low, making counties highly dependent on grants. County revenues will need to be increased by improving county revenue administration and expanding the revenue base, possibly by adding piggy-back taxes onto nationally collected taxes.

Expenditure management needs to be revisited at the subnational level, with counties allocating more resources to operational spending. Although increasing the amount of resources allocated to counties as part of their share of national revenues is probably a necessary step toward enhancing frontline service delivery, it is unlikely to be sufficient. How counties, in turn, allocate resources to sectors also needs to be revisited if services are to be improved. Existing planning, budgeting, and reporting systems need to be strengthened, making them much more focused on results. Program-based planning and budgeting would also be a better, more meaningful basis on which to structure participation and citizen consultations. Monitoring of spending is also insufficient, and an increase in public transparency would help ensure greater "value for money" regarding funding of service delivery. Furthermore, cash management practices of counties need to become less centralized to ensure that service delivery facilities receive budget resources regularly and on a timely basis. Finally,

counties could redirect excessive spending on general administrative functions toward the delivery of front-line services.

Human resources management is arguably the weakest element in Kenya's current devolution framework and requires urgent attention and action. Staffing and payroll challenges place serious constraints on subnational performance and affect service delivery. County human resources management systems and frameworks need to: (1) be rationalized so as to eliminate fragmentation in staff pay and employment conditions, as well as to enable the right mix of staff numbers and skills; (2) ensure merit- or performance-based recruitment, evaluation, and promotion (the other side of this coin being the need to ensure that sanctions are used to address poor or unacceptable staff performance); (3) be aligned with service delivery imperatives, rather than building administrative bureaucracies; and (4) be protected against local political interference and patrimonial tendencies. Finally, county human resources management information and records management need to be substantively upgraded, providing a proper basis for human resources planning and budgeting. Although much of this was foreseen at the outset of devolution, the measures taken have been ineffective and require review and rethinking.

Improving service delivery will require investment in management and oversight. Building capacity in Monitoring and Evaluation (M&E) and statistical analysis will be critical for ensuring that the successes and failures of various initiatives are measurable and comparable. Service delivery indicators should be clearly defined and openly shared between levels of government and with the public, helping to ensure transparency in project execution and spending efficiency. Service delivery units should be established at the county level to monitor the efficiency of services, ensure that community participation standards are being met, and regularly and transparently review service delivery.

Expanding participatory governance and monitoring into the decentralized system will improve integrity and efficiency of public spending. Through institutionalization of transparency, accountability, and participatory public processes, county governments can address endemic governance challenges. In Makueni County (box 11), the executive made deliberate efforts to promote inclusive governance by embedding participatory budgeting models, citizen-led project implementation, and the establishment of robust Grievance Redress Mechanisms (GRMs). This improved accountability in multiple dimensions. Makueni County was also the first to receive a clean audit in 2018/19, evidence that it had improved financial management practices to meet the demands of an engaged citizenry keen to track how the government has followed through on development priorities that they themselves had identified. This also enhanced the voice and agency of citizens (especially those who have been marginalized) and improved governance through transparency in the use of funds for development projects. Working with county governments such as Makueni and civil society organizations, the Auditor General has begun to pilot the use of social accountability mechanisms in auditing counties, which should be enhanced.

Finally, counties will need greater technical support and must improve their information management capacities. Much more can and should be done with respect to capacity building and technical support. Although counties can (and do) secure such support unilaterally, the national government needs to be more proactive in providing counties with assistance, based on its comparative advantage and ability to deliver such support economically and efficiently. There is also a clear need for counties to improve their information management and monitoring functions to enable evidence-based planning and budgeting. Although some counties may be doing a decent job of managing and using information, many are not.

4.4 Foundational issues

Three foundational issues cut across all identified pathways, suggesting ways to implement the selected priorities. The interventions identified under the three pathways are specific actions that can be taken to move toward attainment of the World Bank's twin goals. In contrast, the foundational challenges discussed below cut across all the proposed pathways to define ways of doing—themes and approaches that should be applied universally in the planning and execution of these development activities. Concerns about sustainability should inform the design of all interventions to ensure that their effects will be durable and that resources are being efficiently applied for long-term results. Dimensions of inclusivity and gender are also fundamental to all of these activities in that their economic and social benefits will be greater when no part of the population or labor force is excluded. Finally, given the changing global technological landscape, development initiatives will be unlikely to succeed without leveraging the power of low-cost, highly effective digital solutions. Applying the lenses of these three foundational issues will magnify the effect of individual initiatives and maximize gains for the people of Kenya.

4.4.1. Fiscal, social, and environmental sustainability

Fiscal sustainability

Macro stability and fiscal sustainability remain fundamental to Kenya's growth prospects, and by extension to poverty reduction. The critical importance of recreating fiscal space to support the crowding in of the private sector has been discussed in section 4.1 within the context of boosting

productivity and job creation. Recreating fiscal space is important for fostering an enabling environment to support the productive side of the economy. In parallel, it allows the government to address some of the highlighted critical pathways in a number of ways, including investing in people to building human capital and reducing inequality of opportunities, investing in infrastructure, and strengthening devolution for enhanced service delivery. It is against this backdrop that fiscal sustainability is considered to be of foundational importance.

Social sustainability

As the Government of Kenya pursues its rapid development agenda, awareness is growing of the social costs associated with the development process and potential harm to local communities. In Kenya, major social risks and bottlenecks associated with the development process include displacement due to land acquisition or land repurposing, the effect of the labor influx on communities, mistreatment of workers, and fomentation of local conflicts. Social Risk Management (SRM) seeks to work with communities to systematically identify risks associated with a project and plan for their mitigation. Effective SRM not only avoids and manages potential unintended harms, but can also have a powerful transformational effect on society as a tangible demonstration of participatory governance.

The adoption of effective Social Risk Management practices in Kenya faces several constraints. Implementation of these standards and practices would help to minimize harm to communities and streamline the development process, but is currently hampered by fragmented institutional arrangements with unclear, missing, or overlapping institutional mandates at the national and county levels; a lack of a coherent, integrated legislative and regulatory framework for managing social risks; and capacity constraints on core SRM functions throughout government.

Environmental sustainability

Climate change poses a risk to the sustainable implementation of all three pathways, and interventions will need to be climate smart (supporting low-carbon strategies and climate resilience) to ensure sustainable, durable outcomes across timescales. The effects of climate change must be understood from a causal perspective so that interventions can be planned accordingly. Developing a capacity for adaptation and building resilience to climatic shocks are essential components of economic growth in Kenya. Ecological and social systems are interdependent, and any environmental shock is liable to affect multiple sectors of the economy simultaneously. Broad use of its natural capital means that Kenya must be particularly careful to think sustainably and maximize its climate change readiness, specifically in agriculture, fisheries, and tourism. Beyond the importance of environmental resilience, addressing climate change will create opportunities for economic growth. New public and private investments in renewable energy can create jobs. Climate-smart agriculture and landscape management can address land degradation and increase productivity, contributing to food security and increasing household incomes. Climate-smart health care strengthens not only the health sector, but also communities more generally by providing a public model for clean energy and water conservation. Finally, because climate change disproportionately affects the poor, they stand to gain the most from these adaptations in terms of sustainable livelihoods and access to services.

Kenya will need stronger crisis prevention measures to ensure the long-term stability of its development efforts. Unforeseen natural disasters, health crises, and economic shocks will demand policy responses, and it will be critical to have mechanisms in place to avoid diverting funds from planned development spending and social safety nets. With the support of the Africa Disaster Risk Financing initiative, the World Bank approved a catastrophe credit for Kenya in 2018, providing a $200 million contingent line of credit. In parallel, the Government of Kenya also became the first government in Africa to develop and implement a National Disaster Risk Financing Strategy. It includes a strategic priority of "improving financing capacity by strengthening and expanding the government's portfolio of disaster risk financing instruments." Market-based solutions, such as catastrophe bonds and insurance products, could add an additional layer of support in response to major disasters and transfer some risk to the market. The appropriate agencies should also create contingency plans for specific scenarios, including pandemics, natural disasters, and terrorist attacks, and contingency stocks should be put in place. The global COVID-19 pandemic highlights the importance of contingency funds both to mitigate the impacts of national health crises and to provide for fiscal stimulus in the wake of a global demand shock or commodity price fluctuation. Not only are these contingency funds and emergency response plans critical for responding to shocks that do arise, but having such measures in place reassures markets and creates a stable climate for investment and savings.

The current growth path for Kenya will require a major effort to ensure that principles of environmental sustainability are respected. Kenya's second National Climate Change Action Plan (NCCAPII) sets out the constraints and opportunities that climate change poses to the achievement of the country's Vision 2030 and the Big Four agenda. The NCCAPII represents the framework for the implementation of Kenya's Nationally Determined Contribution to the Paris Agreement in 2015. It identifies seven priority climate action areas: disaster (drought and floods) risk management; food and nutrition security;

water and the blue economy; forestry, wildlife, and tourism; health, sanitation, and human settlements; manufacturing; and energy and transport. A significant commitment of resources will be required from the government and development partners if the country's climate goals are to be achieved. Targeted, people-centered, customized solutions will be required to enhance household and community resilience. This approach strengthens the ability of the poorest and most vulnerable to recover quickly and more effectively from climate impacts.

Appropriate fiscal policy will be essential to address climate change. Climate shocks continue to increase in intensity and frequency and can affect fiscal sustainability. It is estimated that the economic cost of floods and droughts creates a long-term fiscal liability equivalent to 2.0 percent to 2.8 percent of GDP each year. Specifically, the estimated costs of floods are approximately 5.5 percent of GDP every seven years, and the costs of droughts are approximately 8 percent of GDP every five years.[160] Fiscal instruments—taxation and spending choices made by governments—are among the most effective ways to address climate change and its effects. Conventional macroeconomic models do not regularly integrate climate shocks and adaption into Kenya's core macrostructural model. The regular occurrence of acute climate shocks and chronic climate effects in poor and vulnerable areas can quickly erase development gains and put households and communities into a spiral of poverty. There is substantial potential for private sector climate investment in the country that could be further developed. Kenya recently launched the Green Bond Program, which was designed to promote financial sector innovation by developing a domestic green bond market.

4.4.2. Inclusivity and gender

Improving gender equality and diversity enhances productivity, improves development outcomes for the next generation, and allows businesses and institutions to perform more effectively. Global evidence shows that gender disparities impede human capital formation and economic productivity. Women consistently earn less than men in formal and informal employment and have unequal access to resources such as agricultural inputs and secure land tenure. These inequalities in jobs and assets reduce productivity and investment for the economy overall and have large, lasting effects on household incomes. Access to productive employment is also critical for poverty reduction, and as such, equal access to education is critical for capitalizing on the productive potential of Kenyan youth. Adolescent programming combining life skills and livelihood training has been shown to strengthen the transition to the labor market, particularly for out-of-school girls.[161] Furthermore, improving women's engagement in formal enterprises and businesses would increase household security, reduce poverty, and enhance Kenya's broader economic potential, and can be accomplished by addressing limits on access to capital, markets, and skills training. Closing gender gaps in Kenya will require a comprehensive strategy in various sectors and will necessitate addressing social norms and biases to enhance human capital through improved health, education, and skills for women.

The effects and costs of GBV in Kenya on human potential, health, and well-being are a significant barrier to development, gender equality, and women's socioeconomic engagement. Strengthening national and local capacity for GBV prevention and response is a critical facet of addressing underlying norms and dynamics that entrench gender inequality and limit women's and girls' voice and agency. Recommendations include consolidating ongoing efforts at the county level to strengthen capacity for integrated, multi-sectoral service provision for survivors, particularly through the health sector, including support for holistic provision of care and support for referral pathways related to: (1) medical support, (2) mental health and psychosocial care, (3) legal support, (4) opportunities for livelihoods and economic empowerment, and (5) follow-up for survivors within their respective communities. Activities should identify opportunities to support interventions that promote gender equality, behavioral change, and violence prevention, working at the household and community levels to shift attitudes and norms and reduce violence. Potential entry points include pairing economic empowerment and livelihood programming with prevention interventions to address factors of vulnerability that may increase exposure to risk of violence and to address norms and dynamics that might perpetuate GBV. Enabling access to livelihoods has also been an effective means of enabling long-term recovery and support for survivors of GBV.

In addition to a focus on better development outcomes for women, it is necessary to ensure that vulnerable and excluded groups are part of Kenya's development process. Programming needs to include an effort to address the needs of groups such as persons with disabilities, youth, and vulnerable and marginalized groups.

4.4.3. Digital transformation

Taking advantage of these opportunities will require addressing stubborn bottlenecks preventing the digital economy from achieving its full potential in driving growth, job creation, and service delivery. These include more independent and agile regulation of the telecommunications market to ensure

160 NCCAPII 2018.
161 Bandiera et al. (2018).

competition, investment, and affordability of services, as well as strategic public and private investments in digital infrastructure networks to increase reach and performance throughout the country. Strengthening the entrepreneurial ecosystem is also vital to increase the success rate of digital start-ups reaching the high growth stage and creating significant numbers of jobs. Embedding digital skills in the curriculum and providing opportunities for lifelong learning are needed to increase readiness for jobs. Building links with digital markets in East Africa will provide access to a much larger pool of online consumers for Kenya's digital firms and attract investment in digital infrastructure and services.

Kenya's increasing connectivity and wider adoption of digital technologies likewise provide a foundation for improving the efficiency and effectiveness of public service delivery. Processes can be automated, improving the customer experience and decreasing opportunities for corruption. With a mobile phone, digital identification, and a mobile wallet, individuals in remote communities can access health care services, view critical documents and records, pay fees, and receive government payments. In many cases, this saves them from making time-consuming, costly trips to major population centers or waiting in long lines. These same digital assets can help increase the resilience of individuals and the ability of government to respond to climate events and other shocks. Such measures could include enabling innovation in mobile-based insurance products, using big data for early identification of potential threats, supporting effective targeting of affected communities and individuals, and rapidly administering payments and other services before and after an event.

As economic transactions, public services, and social interaction become increasingly digital, it will be critical to ensure that vulnerable groups are not left behind. This includes extra efforts to promote digital inclusion targets such as universal access to broadband, universal basic digital literacy, and the ability for everyone to identify themselves and transact digitally. According to a 2014 Gallup survey, 44 percent of Kenya's urban population but only 17 percent of its rural population reported using the Internet weekly. On average, 1 gigabyte of data costs 4 percent of per capita gross national income, more than double the 2 percent target established by the Alliance for Affordable Internet, a price that is still out of reach for the poorest households. Women in Kenya are 39 percent less likely than men to have access to mobile Internet, 23 percent less likely to own a smartphone, and less likely to participate in the digital workforce.[162]

162 Rowntree (2019).

5. Prioritization

5.1 Identifying priorities within the pathways

The objective of this SCD is to identify the most critical priorities to accelerate poverty reduction and promote shared prosperity in Kenya. A number of constraints have been identified for Kenya that will limit achievement of the World Bank's twin goals. These include challenges affecting the operating environment for firms and farms, difficulties advancing human capital development, inadequate infrastructure, and the insufficient inclusiveness of the growth model. The recent COVID-19 pandemic highlights the importance of addressing these challenges to allow for rebuilding the economy in the medium term and regaining momentum toward achieving the twin goals. Three pathways have been identified to address these constraints and help accelerate attainment of the twin goals: (1) boosting productivity and job creation, (2) reducing inequality of opportunities through advancing human capital, and (3) improving governance for service delivery. These pathways must be pursued in ways that are sustainable and inclusive and that leverage new digital technologies, which are the three foundational themes that cut across all aspects of a successful growth path for Kenya.

First, given the fundamental importance of productive jobs as a means of promoting poverty reduction and shared prosperity, an important pathway to achieve the twin goals is the need to create an enabling environment that supports private sector investment and job creation, with specific interventions to support the millions of out-of-school young men and women in accessing employment and expanding their opportunities. This challenge is all the more important given Kenya's demographic dynamics, with an increasingly large number of youth projected to enter the labor market every year. With unemployment being high, in particular youth unemployment, the need for the private sector to create jobs and for youth to be equipped with the skills to be productively self-employed is critical. Likewise, with urbanization accelerating, congested cities must be transformed into productive spaces. Addressing this will require, inter alia, creating a conducive operating environment for firms and farms, addressing remaining infrastructure gaps, advancing the use of digital technologies, and promoting integration of markets (rural and urban, domestic and international). For employment, specific interventions are needed to allow youth, including young women, to take advantage of broad-based reforms, including a combination of skills development (socio-emotional, cognitive, technical) and support to start businesses. Additional measures can target young women to empower them and provide support for their labor force participation while they also transition into family life, including having children.

Second, inclusiveness is critical to achieving the twin goals. Kenya's poverty reduction experience over the past decades has revealed that, unless particular attention is paid to spatial dimensions of poverty, segments of the

population are left behind. Addressing inequalities is important to sustain social cohesion. Hence, although there are physical and human capital gaps across the country, the gaps are more acute in lagging and marginalized regions, especially in the northeastern parts of the country. Addressing these gaps and improving the integration of marginalized regions into the rest of the country should accelerate achievement of the twin goals in Kenya, especially given that poverty in these marginal regions has been remained stubbornly high.

Third, it will be essential to recognize the critical importance of sustainability, and identified vulnerabilities should be reduced using mitigation strategies. Given the increasing vulnerability of Kenya to extreme weather events (e.g., floods, droughts, locusts) advancing the twin goals will require Kenya to mitigate and adapt to climate change to build its resilience against shocks and protect the lives and livelihoods of its citizens. Furthermore, Kenya's ability to achieve the twin goals also rests on safeguarding social cohesion. In this regard, the 2010 constitution provided an important step forward by enacting a devolved system of governance. Although much progress has been made in a short period, Kenya's devolution journey is nascent and a work in progress. To this end, it is critical for the devolution process to be strengthened and the economic gains to be equitably shared.

Specific policy interventions are prioritized according to their effect on the twin goals and on spatial equity. Given the numerous constraints identified, it is important to prioritize the most critical reform actions needed to accelerate achievement of the twin goals. This SCD adapts the filtering criteria provided in the World Bank SCD guidelines. The criteria used here are: (1) the impact of the specific reform on the twin goals, (2) the improvement of spatial equity, (3) the complementarity of the reform action, (4) the time horizon for the reform to have an impact, and finally (5) the feasibility of implementing the reform action (figure 31). The first criterion is the dominant one. In other words, reform actions that are deemed to have greater potential positive effects on the twin goals should be prioritized. The second criterion requires that interventions increase geographic equity. As the diagnostic shows, there are large and increasing geographic inequities, especially between the NEDI counties and the rest of Kenya, creating a potential risk factor for the stability of the country and its social contract.

Interventions are then filtered according to their complementarity with other interventions, their time horizon, and their feasibility. The third filter is the complementarity objective, which seeks to identify the extent to which a specific intervention will have positive externalities in addressing other constraints. For instance, although improving digital technologies should help increase productivity, growth, and job creation, it also is important to advance human capital development. The fourth filter focuses on how long it is likely to take for a particular intervention to affect the twin goals and geographic equity, with a view to prioritizing measures that are most likely to accelerate achievement of the twin goals and increase geographic equity by 2030. Finally, the fifth filter is the feasibility of the proposed intervention. Specifically, the feasibility of proposed interventions will be evaluated based on perceived willingness to reform, governance challenges, and fiscal feasibility. Only reforms that are deemed feasible will be prioritized.

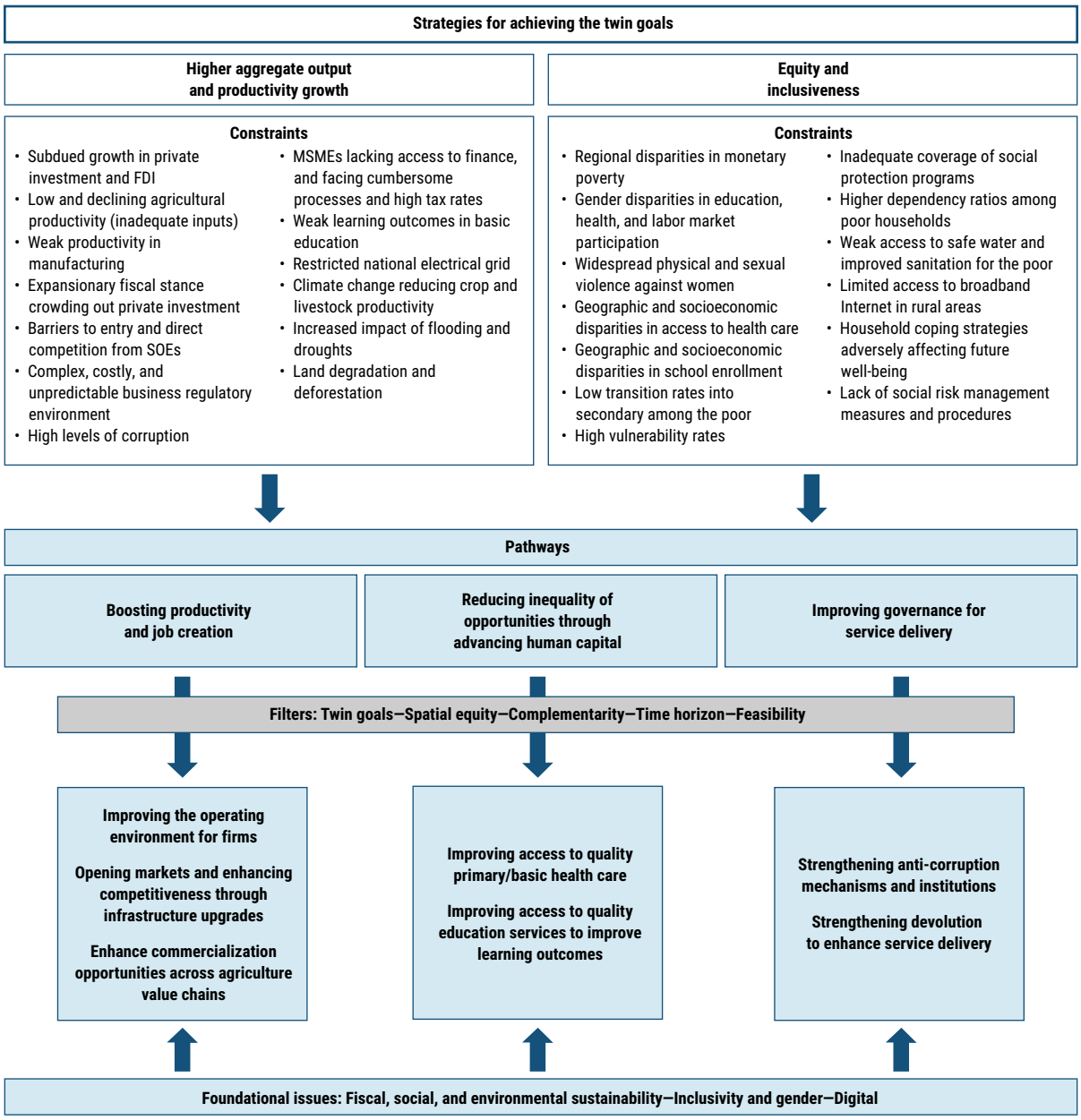
Box 12. Prioritization process

Based on inputs from sectoral colleagues, the systematic country diagnostic (SCD) team developed a list of 36 potential priorities to address the identified constraints hindering Kenya's achievement of the World Bank's twin goals. The SCD team invited the country team and sectoral focal points to participate in a prioritization workshop held simultaneously at the headquarters of the World Bank and in the World Bank Kenya country office. After a short presentation of the overall SCD framework, the SCD team explained the filtering criteria that workshop participants would use to help decide priorities. These criteria were the impact on the twin goals, spatial equity, complementarity, time horizon, and feasibility.

At the workshop there were two rounds of voting. In the first round, each participant was invited to rank their first, second, and third priorities from the list of 36 potential priorities. The voting was displayed using colored notes on the wall. After the initial vote, each participant explained to the group the rationale behind their chosen rankings. After all participants had explained their choices, they were able to validate or alter their ranking of the priorities based on what they had heard from colleagues. Several colleagues took this opportunity to revise their initial votes. After the workshop, the SCD team consolidated the results of the voting process into the priorities presented in this section.

A quality enhancement review was later conducted to solicit further views from independent reviewers on the priorities selected using the voting process. The results of the prioritization exercise were further validated in four virtual workshops held with a wide cross-section of Kenyan society, including policy makers, academics, civil society, and private sector leaders.

Figure 31. Kenya Systematic Country Diagnostic (SCD) methodology



5.2 Priorities to achieve the twin goals

The seven selected priorities are presented below. Under the pathway of boosting productivity and job creation, the selected priorities are (1) improving the operating environment for firms, (2) opening markets and enhancing competitiveness through infrastructure upgrades, and (3) enhancing commercialization opportunities across agriculture value chains. Under the pathway of reducing inequality of opportunities through advancing human capital, the selected priorities are (4) improving access to quality primary/basic health care, and (5) improving access to quality education services to improve learning outcomes. Under the pathway of improving governance for service delivery, the selected priorities are (6) strengthening anti-corruption mechanisms and institutions, and (7) strengthening devolution to enhance service delivery.

5.2.1. Improving the operating environment for firms

The combined effects of the deficit of productive jobs and a significant narrowing of the fiscal space in recent years calls for spurring greater dynamism in private investment (both domestic and foreign), which has underperformed in recent years. An important part of creating a more conducive environment for private investment is the need to reduce the public sector's crowding out effect on the private sector (discussed in detail as part of the foundational issues in Chapter 4).

However, beyond reducing the crowding out effect of fiscal policy, this diagnostic prioritizes three actions that could encourage productive investment in the private sector: remove regulatory hurdles to enhance competition, increase access to finance for MSMEs, and address inefficiencies in land markets.

a. Removing Regulatory Hurdles and Enhancing Competition

It is estimated that reducing anticompetitive regulations and better aligning them with best practices has the potential to increase productivity gains by 3 percent to 13 percent.[163] Part of the post-2003 increase in GDP growth in Kenya was due to structural reforms that, inter alia, supported the removal of various licensing restrictions. Nonetheless, restrictive regulations and the predominance of SOEs hinder entry into and competition within markets. Measures to improve market entry and contestability include:

- **Removing regulatory barriers and government interventions that restrict entry and competition.** These include licensing and policy restrictions in various sectors, including agriculture (tea, sugar, seeds), electronic communications (spectrum allocation, mobile payment systems), electricity generation, professional services (legal, architecture, quantity surveying), insurance, and transport logistics.
- **Improving market discipline mechanisms for SOEs and encouragement of private sector solutions.** Increasing the efficiency of SOEs and limiting direct public participation to markets where private participation is not feasible would help ensure competitive neutrality and crowd in the private sector. Also, given the drain on the exchequer from SOEs, such reforms would help increase fiscal savings.

b. Improving Access to Finance for MSMEs, Including Underintegrated Interventions for Youth-Led Microbusinesses

Although the removal of interest rate caps in October 2019 was a step in the right direction to increase credit access, it needs to be accompanied by deeper structural reforms. First is the reduction in the fiscal deficit to lower the government's domestic borrowing requirements, benchmark interest rates, and ultimately commercial bank lending rates. Beyond the macro-level reforms to reduce the degree of government involvement in the domestic market is the need to enact reforms to support universal adoption of credit scoring and sharing, helping banks discriminate between borrowers. It will also be important to accelerate implementation of the movable collateral registry. Although these measures should generally support an increase in private sector credit growth, given the peculiarities of the MSME sector, there is a need to undertake specific measures to de-risk lending to MSMEs. These could include:

- **Establishing an operational and efficient Credit Guarantee Scheme.** Such a scheme could build the capacity of MSMEs to absorb finance through greater financial literacy and managerial capabilities; build the financial data of MSMEs, which is critical in credit appraisals; and bridge the gap caused by late payments to MSMEs through procurement entities.
- **Leveraging alternative data for MSME finance.** Financial institutions in Kenya have mentioned the challenge of finding current information and data on MSMEs, which affects their ability to make data-driven business decisions. Market players are encouraged to identify ways to use financial technology to exploit alternative sources of data and advanced data analytics to increase access to markets and finance for MSMEs.
- **Building the capacity of SACCOs for better intermediation of MSMEs.**
- **Addressing the accessibility of capital for early-stage enterprises and opening alternate funding channels.** Although there appears to be an adequate supply of venture capital available within Kenya and especially globally, accessibility is a considerable constraint, largely because of information asymmetry between investors and investees. Government agencies and other nongovernmental bodies can play an active role in addressing this market failure through interventions such as de-risking such ventures or investing in information and awareness campaigns for investors and investees.

c. Addressing Inefficiencies in Land Markets

Land reform is a highly sensitive topic in Kenya, and it could prove difficult to enact major reforms. Nonetheless, there is much room to improve the functioning of land markets and to help address the myriad challenges that arise from inefficiencies in land markets. These difficulties include unplanned land use, low agricultural productivity, the high cost of land for public investments, informal settlements, traffic congestion, high housing costs, and informality. Specific measures to improve land market efficiency could include:

- **Improving land record management.** Implementation of a National Land Information Management System would be beneficial. It will also be important to accelerate the digitization of land records and establish a geo-referenced land registry.
- **Accelerating implementation of the National Land Use Policy (2016).** The uncoordinated allocation of land use needs to be addressed. Implementation of the policy would help ensure that the selection and adoption of land use options meet the economic

163 Bourlès et al. (2010b).

and social needs of Kenyans while safeguarding resources for the future.

- **Completing the National Spatial Plan and the derivative county spatial plans.** The National Spatial Plan (2015–2045) was developed to increase the efficiency of public investment spending and guide private investment decisions in industry and services. It provides a coordinating framework for sectoral planning, particularly infrastructure for basic services and industrialization.
- **Improving property registration systems.** This would help entrench property rights and accelerate land transfers and release for development.
- **Leasing unused public lands to private sector actors.** Large tracts of land owned by the state (often through parastatals) lie idle. There is significant room to increase productivity by engaging in leasing arrangements with the private sector to put this land to productive use in addressing the government's development priorities (e.g., food security, affordable housing).

5.2.2. Opening markets and enhancing competitiveness through infrastructure upgrades

Infrastructure upgrades can boost productivity and shared prosperity and accelerate the pace of poverty reduction. Yet, as important as this agenda is, it is equally important to recognize that infrastructure upgrades need to be financed within a sustainable medium-term fiscal framework. Given the current fiscally-constrained environment, it will be important to undertake this by crowding in private investment. The constraint on fiscal space also calls for infrastructure upgrades to be well targeted to maximize positive effects on the twin goals. To do so will require infrastructure upgrades that enhance geographic and economic integration, increase connectivity to regional and global markets, and transform urban centers into productivity hubs.

Enhancing geographic and economic integration can reduce inequality. As noted in Chapter 3, although economic growth has helped decrease poverty over the past decade by approximately 1 percentage point per year, poverty remains stubbornly high in parts of the country. Some of the areas in the country with the highest incidence of poverty are cut off from productive centers and pay higher prices in travel time and costs. Infrastructure developments can help connect economically marginalized parts of the country with economic hubs to increase economic activity in both areas. Specific measures of focus could include:

- **Developing the northeastern transport corridor.** Improved transportation networks and digital connectivity with the most dynamic economic hubs (in particular Nairobi and Mombasa) can help open new markets and promote self-sustaining economic activities. The North Eastern Transport Improvement Program is expected to cut travel times and transportation costs, facilitate trade, and create new income-earning opportunities. The opening up of the region is also expected to reduce the insecurity that constrains private investment.
- **Linking rural areas with urban centers.** Given the disproportionate level of rural poverty, connecting rural areas with urban centers can help boost shared prosperity. This calls for rural infrastructure upgrades such as roads, water and sanitation, electrification, and small-scale irrigation that can decrease the cost of inputs and products and increase competitiveness. Furthermore, there is a need to bridge the digital divide—44 percent of the urban population have access broadband services but only 17 percent do in rural areas. In rural areas that have access, digital technologies have supported financial inclusion, access to information, and off-farm jobs.

Upgrading infrastructure to enhance connectivity with regional and global markets would stimulate growth. Developing regional transportation and trade corridors can increase regional integration and deepen economic synergies. However, Kenya lacks an efficient, integrated intermodal national transportation system, and many trade corridors connecting the country to its neighbors are in poor condition. Interventions on a few corridors are planned or are underway, such as upgrading the Isiolo-Mandera road corridor linking Kenya to Ethiopia and Somalia and reconstruction of a section of the Kenya–South Sudan road corridor. Given the lack of fiscal space, decision makers will need to prioritize highly effective investments in infrastructure upgrades with clear and substantial social returns. Specific transportation infrastructure initiatives needed to improve Kenya's trade performance and role as a regional hub include:

- **Continuous investment in improving regional trade corridors.** This includes the development of major international roads, inland waters navigation infrastructure, regional aviation security and safety authorities, border crossings, and customs facilities.
- **Promotion of regional private sector initiatives and private infrastructure investment.** Barriers to entry should be reduced for export-focused firms aiming to access markets within the East African Community customs union and outside the region.
- **Improved railway planning.** Freight-flow and logistics demand models need to be developed that account for economic geography and disaggregated freight flow patterns. Such analysis would help maximize the utility of the planned standard gauge railway and inform decisions on last-mile connectivity.
- **Develop a national aviation policy.** Such a plan would increase aviation security, modernize the passenger

terminal facilities at Jomo Kenyatta International Airport, and strengthen the Kenya Airports Authority.

Infrastructure investment can help transform urban centers into hubs of productivity and job creation. As noted in Chapter 2, the improvement of Kenya's infrastructure over the past decade has stimulated growth in recent years. Notwithstanding this progress, with a growing population and rapid urbanization, there is increasing pressure on existing infrastructure, particularly in urban areas (e.g., traffic congestion, water shortages, power outages), which threatens the ability of urban spaces to be productive economic hubs. Specific interventions could include:

- **Streamlining the institutional arrangement in managing urban mobility.** This can best be accomplished by establishing a lead agency responsible for planning and coordination.
- **Developing and implementing urban mobility programs for major cities.** This would include land use planning and involve integrated public transportation systems, rail and non-motorized transport networks with safer and greener solutions, and operationalization of metropolitan transport authorities.
- **Economic water scarcity must be addressed though large, coordinated investments.** To meet the fast-growing demand from urban centers, investments must be increased in strategic water storage, productive watershed management, interbasin transfers, water delivery works, last-mile connectivity to water distribution systems, water conservation, and adaptation infrastructure. An integrated water management and service delivery approach should also be adopted for urban areas, including investments in improving the efficiency of water service providers.
- **An integrated approach to sanitation should be adopted.** Kenya needs to change its fragmented approach to urban sanitation infrastructure that deals separately with sewerage, fecal sludge, solid waste, and hygiene. Governments should adopt an integrated approach to sanitation covering all elements along the supply chain.

5.2.3. Enhancing commercialization opportunities across agriculture value chains

Prioritize initiatives that help producers gain access to agricultural value chains. Advancing commercial agricultural opportunities can be supported by addressing bottlenecks faced by the leading companies in the sector. It will also be important to build the capacity of institutions and agents to identify and take advantage of opportunities along the value chain. Furthermore, investments in irrigation could double or triple agricultural productivity and increase farm income while enhancing the climate resilience of rural communities.

Increase commercialization opportunities for farmers by developing a warehouse receipt system and commodities exchange. The operationalization of the Warehouse Receipt System and the National Commodity Exchange would give farmers more flexibility in choosing when to sell their produce and would reduce transaction costs for millers and processors by allowing them to procure grain directly from farmers. Enacting these mechanisms would also increase lending to the agricultural sector by providing alternative security. Furthermore, this would improve the grading of produce along the entire value chain, increase the quality of goods being sold, and reduce postharvest losses through professional storage. At the same time, reforming the Strategic Food Reserves and National Cereal and Produce Board to reduce government interference in the output and input markets will encourage private sector participation.

Support the adoption of relevant standards and certification to allow farmers to join domestic and global value chains. Many farmers, especially small and medium-sized ones, are not aware of these standards and consequently miss out on economic opportunities. Government efforts to provide training on relevant standards and certification requirements can help small- and medium-sized producers connect to value chains. This is essential to access not only lucrative external markets, but also domestic markets, with the supermarket revolution in Kenya leading to consolidation in the retail market. Complementing this could be efforts to streamline the issuance of relevant sanitary and phytosanitary certificates of compliance from government agencies such as the Kenya Plant Health Inspectorate Service, the Horticultural Crops Development Authority, and the Kenya Bureau of Standards. Recent advances in certifying avocado farmers in Kenya have contributed to a remarkable rise in avocado exports, with Kenya now overtaking South Africa as the largest African exporter of avocadoes. This is one example to suggest that there is significant scope to scale up and replicate this success in other agricultural value chains.

Leverage cooperatives to enable smallholder farmers to benefit from value chain opportunities. Uncertainty and limited information about demand are barriers to being connected to value chains, especially for SMEs. The government can help rectify this information asymmetry by assuming a coordination role in bringing together agricultural firms to help them discover new markets and build relationships with clients. This can be accomplished through trade fairs, business-to-business events, and trade missions, and using embassies more effectively to facilitate business links. Kenya has some 23,000 registered cooperative societies with 15 million members. Many small-scale farmers belong to cooperatives and through them access inputs, storage facilities, and marketing opportunities. Historically, cooperatives have increased the incomes of their members, helped smooth consumption, and opened

education opportunities for members' children. However, several agricultural cooperatives have in recent years been rocked by governance challenges that have disincentivized their membership (farmers) and eroded their influence. The State Department of Co-operatives could leverage existing cooperatives to link producers to value chains, but this would require first addressing these lingering governance challenges.

5.2.4. Improving access to quality primary/basic health care

Health outcomes in Kenya can be greatly improved through increased spending, better financial management, changes in health care priorities, an improvement of human resources policy, and better coordination. Specific interventions could include:

- **Reallocating health care funding to county-level service providers and increasing spending efficiency.** Public spending on health care and select priority initiatives, including provision of universal health care coverage through more robust protections against financial shocks, should be shifted to the local level as quickly as possible. In parallel, the efficiency of health spending needs to be improved, notably by strengthening strategic purchasing.
- **Changing health care priorities.** Specific public policy interventions should address the high rates of child and maternal mortality, as well as stunting and malnutrition. Primary health care services should be redesigned to focus on preventive services and health promotion.
- **Improving human resources policy.** The productivity of health care workers needs to be enhanced by establishing the right incentives and payment mechanisms, addressing absenteeism, and ensuring a more balanced sharing of resources. The operating environment for health care can also be improved to ensure that available resources have the greatest possible impact on health outcomes.
- **Improving financial management.** Health financing should be made more sustainable by adopting common mechanisms for budgeting and tracking withdrawals from county coffers, including conditional grants issued to health care facilities.
- **Strengthening coordination.** Multidisciplinary and multi-agency coordination should be strengthened within the health care sector, including intergovernmental collaboration and the clarification of roles and responsibilities.

5.2.5. Improving access to quality education services to improve learning outcomes

Major gains in education—and therefore human capital in the long run—can be made through policy changes aimed at reducing inequities in access and improving learning outcomes. The long-term strategy of the education system should be focused on schooling for learning (including at the preschool level) and directly address the regional and gender disparities that persist in Kenya, notably for the very low learning outcomes in basic education in 14 counties. Strong advocacy will be needed to help ensure that girls remain in school in regions where the gender gap in the dropout rate is severe. The substantial lack of equity in access needs to be addressed, especially for girls and residents of informal settlements. Targeted support such as scholarships and in-kind support should be used to help equalize enrollment rates, thereby helping to create opportunities for children from all socioeconomic backgrounds. Multi-sectoral interventions, such as deworming and investments in water and sanitation, will also be crucial for maintaining attendance and learning outcomes. The human capital of the millions of youth who dropped out of school early needs to be built with integrated interventions that teach multiple skills including cognitive, socio-emotional, and technical. These training programs should be designed to respond to labor market needs, especially where they address technical skills gaps.

The quality of teaching needs to be improved. Mechanisms to achieve this can include greater reliance on contract teachers to fill the more than 100,000 vacant positions, better teacher professional development, and a stronger monitoring and performance evaluation system. New investments should be made in early childhood development and education, and a structured quality assurance framework should be put in place. Finally, the education sector requires major improvements in its financial management systems as a means of increasing spending efficiency. This should include the harmonization of budget structures between levels of government and more regular auditing. Financial information relating to schools should be disclosed, and this information should be made available online to stakeholders inside and outside government.

5.2.6. Strengthening anti-corruption mechanisms and institutions

A consistent and holistic approach to tackling corruption would have positive knock-on effects throughout the whole society and economy. More needs to be done to fight corruption, and institutions will need to be strengthened. Although punitive measures such as arrest and prosecution have an impact, a more sustainable approach would be to promote performance and accountability for service delivery. Specific interventions that can help in this regard include:

- **Digitization of public services.** Digital technologies should be phased in to replace face-to-face interactions in providing government permits, licenses, approvals, and incentives.

- **Digital land registry.** Greater transparency and documentation in the land market will be essential for reducing risk and increasing tenure security.
- **Public procurement reform.** Another area that could easily yield benefits is public procurement, ensuring that private interests do not compromise the integrity of decisions made by public officers and by separating as much as possible the realms of politics and business.

5.2.7. Strengthening devolution to enhance service delivery

Service delivery can be strengthened by expanding participatory governance, voice, and accountability at the county level and building the capacity of county governments to enhance service delivery.

a. Expanding participatory governance, voice, and accountability

- **Expansion of participatory governance.** County assemblies need to be provided with the resources needed to go beyond "ward-style" development. A structured multitier decision-making model should continue to be introduced, by establishing development committees starting at the village level and continuing upward to village clusters, sub-wards, wards, and finally counties. Urban and rural planning offices should be fully established at the county level, and county executives' capacity in participatory planning should be increased through training.
- **Public expenditure transparency.** Mechanisms must be put in place to enable citizens to track government spending and the execution of agreed-upon development priorities. In parallel, county governments must be given the resources needed to enable better service delivery.
- **Clear definition of national and county government roles.** The separation of functional responsibilities needs to be better defined between national and county governments, to eliminate duplications, inconsistencies, and service delivery gaps.

b. Building the capacity of county governments to provide better service delivery

- **Strengthening county-level public finance management.** Public finances need to be reallocated so that money is being spent mostly at the county level, where public goods and services are delivered. County revenues can be strengthened as well by increasing the efficiency of county revenue administrations and expanding the revenue base with new taxes. Expenditure management can also be improved to ensure that planning and budgeting are directly linked to service delivery results. Service delivery units should be established at the county levels to monitor the efficiency of services, ensure that community participation standards are being met, and conduct regular and transparent reviews of services.
- **Providing better human resources management.** Human resources systems and frameworks need to be rationalized to eliminate discrepancies in payroll and employment conditions and to ensure that teams have the right number of staff members with the appropriate skill profiles. Other priorities should include using merit-based recruitment, ensuring that management practices align with service delivery goals, and establishing safeguards against local political interference and nepotism.
- **Building capacity for county administrations.** The national government needs to be more proactive in providing counties with technical assistance and training, based on its established capacity and comparative advantage.
- **Strengthening county and national monitoring and evaluation systems.** Building capacity in Monitoring and Evaluation (M&E) and statistical analysis would help reinforce linkages between strategic planning, budgets, Public Investment Management, citizen engagement, and performance management at the individual and institutional levels. Service delivery indicators should be clearly defined and openly shared between levels of government and with the public, thereby helping to ensure transparency in project execution and spending efficiency.

6. Knowledge and data gaps

Although Kenya has closed important data gaps in recent years, crucial gaps remain in a fragmented and production-centered statistical system. Historically, Kenya's statistical system had multiple data gaps, including the absence of an agricultural census, large gaps between consecutive household surveys and consequently outdated consumption weights to measure inflation, infrequent or non-existent establishment surveys, and an insufficient business registry, among many others. In an effort supported by Development Partners including the World Bank, the Kenyan National Bureau of Statistics (KNBS) improved its institutional setup and technical capacity, and additional funding from partners facilitated the closure of the most essential data gaps, except for the agricultural census. Instead of a 10-year gap between household consumption surveys to estimate poverty from 2005/06 to 2015/16, KNBS began to administer a continuous household survey in 2019, producing quarterly labor and annual poverty indicators. The consumer price index weights for inflation were revised based on the latest survey. A survey of SMEs and a census for industrial production were implemented that will allow GDP to be rebased. Additional data gaps, such as the lack of an agricultural census since independence in 1963, will need to be closed.

Better integration of available data is also an essential priority, to ensure an appropriate evidence base that can inform programs and policies. Although recent efforts to improve data quality, availability, and timeliness have successfully focused on the KNBS, administrative data across ministries and agencies, as well as with sub-national entities like county governments, are not effectively shared. Agencies collecting (administrative) data must be integrated into the national statistical system to facilitate data sharing and monitoring also in the context of the ongoing devolution process. The pragmatic, demand-driven prioritization of agencies and sectors will be essential in this process. Although the national statistical system in Kenya remains production-centered, user demand for statistics has increased, as reflected in the use of public data sources (e.g., KNBS's national data archive). Better dialogue and capacity building for users are needed to help move the statistical system toward a user-centered approach. Thus, greater effort will be needed to sustain the improvements and increase the frequency and quality of data collection while creating an integrated national statistical system that brings together data from different ministries and agencies and is also vertically integrated with data from the county level.

High-frequency survey systems can help mitigate uncertainties in the context of shocks such as the COVID-19 pandemic and provide evidence for policy makers. In the context of shocks, as emphasized by the current COVID-19 pandemic,

current data are crucial to inform crisis mitigation measures because it is essential for decision makers to understand the impact of the crisis on specific socioeconomic indicators. High-frequency observatories can develop the physical and statistical infrastructure and technical capacity necessary to quickly deploy surveys in the context of a crisis. For example, sampling frames for phone surveys can be prepared as part of the implementation of scheduled household and firm surveys. Ready-to-use call centers with trained enumerators can allow phone surveys to be administered swiftly, and an analysis unit maintaining survey dashboards can ensure timely dissemination of results. The current COVID-19 pandemic has shown the importance of such surveys in Kenya. A high frequency observatory should be set up in Kenya to prepare for future crises.

Major data and knowledge gaps remain with regard to the sustainability and adequacy of pensions for civil servants. The growing pension bill for civil servants has prompted policy makers to introduce significant reforms, but significant knowledge gaps remain regarding the effect of the proposed reforms on the equity and adequacy of benefits and on how transition costs will be funded. The growing burden of civil service pension expenditures (0.8 percent of GDP as of 2016) has prompted the government to move from the current pay-as-you-go defined benefit scheme to a defined contribution scheme for new entrants and individuals younger than 45. The move to a defined contribution scheme without any parametric reforms to the existing defined benefit scheme would result in higher costs (also referred to as transition costs) because the government would have to make contributions for entrants to the new scheme in addition to paying pensions for existing and upcoming retirees of the defined benefit scheme. If new and existing civil servants younger than 45 were all to switch to the defined contribution scheme, pension expenditures would increase by 0.2 percent of GDP in 2021. By 2030, total pension expenditures would equal approximately 1.2 percent of GDP and then slowly fall to 0.4 percent by 2060, at which point the transition to the defined contribution scheme would be complete. If only new hires are switched to the defined contribution scheme, the transition costs will be lower but the pace of decline in expenditures will be slower. Once the transition of the civil service pension scheme from a defined benefit to a fully-funded defined contribution scheme is complete in a few decades, government expenditures will be limited to paying contributions, which are 15 percent of the basic wage bill.

The mandatory pension scheme for the formal-sector National Social Security Fund (NSSF) needs to clean its data records and perform an analysis to ascertain the funding ratio of the scheme and to inform its growth strategy. The mandated private sector NSSF scheme has assets equal to approximately 2.4 percent of GDP and covers roughly 2.7 million Kenyans. It suffers from knowledge gaps regarding unclaimed benefits and the liabilities of inactive contributors. Providing significant information technology assistance for cleaning and mining data for NSSF will be necessary to ensure that the scheme stays funded and able to provide acceptable returns to its members. This is urgent given that the NSSF will need to manage an increasing number of contributions with the significant increase in the contribution rate proposed in the NSSF reform. The data and knowledge gaps for formal-sector pension schemes in Kenya need to be addressed swiftly, in light of the very substantial reforms of the civil service and the NSSF that are likely to be implemented soon.

There are major knowledge gaps in pension schemes for workers in the informal sector. The informal sector generates 83 percent of new jobs, but developing pension schemes will require strong collaboration between the public and private sectors to address knowledge gaps. In light of the limited regional and global experience around covering the informal sector, creativity in using traditional data sources will be needed. For example, household surveys can be used to identify vulnerable and non-vulnerable informal sector workers, along with pilot surveys designed specifically to discover the characteristics of target households. Given the irregular incomes earned in the informal sector, some workers with the ability to save for old age also have a need for flexibility in accessing savings. For this group, a data- and behavioral economics–driven approach to designing products and systems would make the schemes efficient and increase the likelihood of them being successful.

Some knowledge gaps remain with respect to new digital technologies. To strengthen Kenya's existing statistical system, it will be important to continue modernizing the statistical infrastructure by tapping into big data and technological innovations to lower costs and improve quality. Given the fast-changing digital landscape, it will be essential for policy makers to have access to regular, more extensive survey data. Companies such as Facebook have far better data than government or international organizations in this space, which is fundamental for better policy and decision making. In light of this, there is a strong potential for partnerships with the private sector in data collection. Another possibility would be investing in sensors that generate real-time big data, for example in agriculture or public transit. This would create opportunities for government services and applications and for use of the data by private sector innovators.

Energy sector reforms would benefit greatly from market studies, more complete financial data, and better analysis of integration of renewables into the grid. After two successive phases of reforms, the energy sector is set to embark on a third phase that would devolve some of the planning

and development functions to county governments. The aim of these reforms is to prepare the system to embrace technological innovations in clean energy in support of the provision of modern, affordable, reliable green energy to the entire Kenyan population. Recognizing that the national grid is a natural monopoly, devolution of planning and development functions to the counties will need to be balanced carefully against the benefits of a centrally planned, managed national grid through a power market design study. The financial impact of open access on the national distribution utility will need to be assessed carefully given the existing long-term power purchase obligations of the utility. The increasing role of intermittent renewables (solar and wind) will need to be better managed with careful analysis of the power system to absorb them. A better analysis of the direct use of geothermal would help leverage Kenya's vast geothermal resources, which have already made the country eighth in the world in terms of geothermal generation capacity. Promoting the productive use of electricity on and off the grid will enhance economic growth and development through greater access to electricity. Lastly, data gathering and analysis regarding energy efficiency would reduce the costs of power generation, which would in turn increase the competitiveness of Kenyan businesses.

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Appendix A. Modelling framework

The econometric model builds on the work of Loayza, Fajnzylber, and Calderon (2005) and Araujo et al. (2014) and was developed to examine determinants of economic growth over the medium term (decades). In the model, the change in the natural logarithm of real gross domestic product (GDP) per capita between two periods is related to the lagged level of the natural logarithm of real GDP per capita and a set of growth determinants, X:

$$lny_{ct} - lny_{ct-1} = \phi lny_{ct-1} + \Gamma ln(X)_{ct} + a_c + b_t + e_{ct}$$

where $lny_{ct} - lny_{ct-1}$ is the change in the natural logarithm of real purchasing power parity (PPP) GDP per capita in country c between period t and t-1; lny_{ct-1} is the natural logarithm of real PPP GDP per capita of country c in period t-1; a_c and b_t are country and time fixed effects; and e_{ct} is an error term.

The model is estimated using system generalized method of moments (GMM) and fixed effects ordinary least squares (table A1). The selected model is the system-GMM estimation. The model is estimated on 5-year nonoverlapping panel data. X's are endogenous variables that, in the GMM estimation, are instrumented with their lags. The panel comprises 126 countries.

Table A1. Description of variables

Variable	Description	Source
Growth rate of GDP per capita	Change in natural logarithm of real PPP GDP per capita between period t and t-1	PWT 7.1
Lagged GDP per capita	Natural logarithm of real PPP GDP per capita in period t-1	PWT 7.1
Schooling	Natural logarithm of secondary school enrollment rate	WDI (2017)
Financial development	Natural logarithm of ratio of domestic credit to private sector divided by GDP: Domestic credit to private sector refers to financial resources provided to private sector, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable, that establish a claim for repayment.	WDI (2017)

Trade openness	Natural logarithm of ratio of exports plus imports over PPP GDP adjusted for countries' population sizes	PWT 7.1
Telecommunication infrastructure	Natural logarithm of main telephone lines per capita: Telephone lines are fixed telephone lines that connect a subscriber's terminal equipment to the public switched telephone network and that have a port on a telephone exchange. Integrated services digital network channels and fixed wireless subscribers are included.	WDI (2017)
Government burden	Logarithm of ratio of government consumption expenditures over GDP	PWT 7.1
Political institutions	The polity2 score measures the degree of political constraints, political competition, and executive recruitment. It ranges between −10 and 10, with higher values denoting more democratic institutions.	Polity IV
Inflation	Natural logarithm of 100+ consumer price inflation rate: Consumer price index inflation reflects annual percentage change in cost to average consumer of acquiring a basket of goods and services.	WDI (2017)
Real exchange rate	Natural logarithm of GDP price level divided by nominal exchange rate	PWT 7.1
Financial crisis	Indicator variable that is unity in period t if the country experienced a banking crisis	Reinhart and Rogoff (2011)
Terms of trade growth	Change in natural logarithm of the barter terms of trade index, calculated as percentage ratio of export unit value indexes to import unit value indexes measured relative to base year 2000	WDI (2017)
ComPI growth	Change in an international commodity export price index, which is constructed as $ComPI_{ct} = \prod_{i \in I} ComPrice_{it}^{\theta ic}$ where $ComPrice_{it}$ is the international price of commodity i in year t, and θic is average (time-invariant) value of exports of commodity i in GDP of country c	Arezki and Brueckner (2012)

Table A2. Economic growth model

(baseline)

Dependent variable: Δln(GDP p.c.)

	(1) SYS GMM	(2) FE OLS
Transitional convergence ln (GDP p.c.), t-1	−0.22*** (0.06)	−0.25*** (0.03)
Structural policies and institutions schooling	0.02 (0.05)	−0.03 (0.03)
Financial development	0.07*** (0.03)	0.02 (0.02)
Trade openness	0.08* (0.05)	0.10*** (0.03)
Government burden	−0.26*** (0.04)	−0.13*** (0.03)
Telecommunication infrastructure	0.14*** (0.03)	0.08*** (0.02)
Political institutions	−0.00 (0.03)	−0.01 (0.02)
Stabilisation policies		
Inflation	−0.01 (0.01)	−0.01* (0.01)
Real exchange rate	−0.06 (0.04)	−0.02 (0.03)
Financial crisis	−0.04 (0.03)	−0.05* (0.03)

External conditions		
ComPI growth	10.48*** (2.69)	6.96*** (2.59)
Terms of trade growth	0.12*** (0.03)	0.11*** (0.03)
Country FE	Yes	Yes
Time FE	Yes	Yes
Observations	464	464
Countries	126	126

Note: The dependent variable is real GDP per capita. The method of estimation in column (1) is system-GMM; column (2) least squares. *Significantly different from zero at the 10 percent significance level, *** 1 percent significance level.

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