



SOMALIA

SELECTED ISSUES

December 2022

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November 17, 2022

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**Middle East and
Central Asia
Department**

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FOOD INSECURITY IN SOMALIA¹

Domestic and international shocks are compounding structural drivers of food insecurity in Somalia, placing the country at the brink of famine. In addition to the coping mechanisms adopted by Somali households, development partners are supporting government efforts to mitigate the impact of the shocks on the most vulnerable. There are however several macro-critical policies authorities could implement to address some of the structural drivers of food insecurity and additional resources the international community could expend to avert a humanitarian disaster in Somalia.

A. Introduction

1. Food insecurity has significant repercussions on macroeconomic development.

Undernourishment, especially during childhood, can have negative effects on physical and cognitive development. By limiting educational attainment and lifelong earning potential, it keeps people in poverty and perpetuates inequality. At the aggregate level, food insecurity reduces a country's human capital accumulation and, thus, economic growth potential.² In addition, food insecurity and inequality can contribute to social unrest that can undermine political stability and the economy.

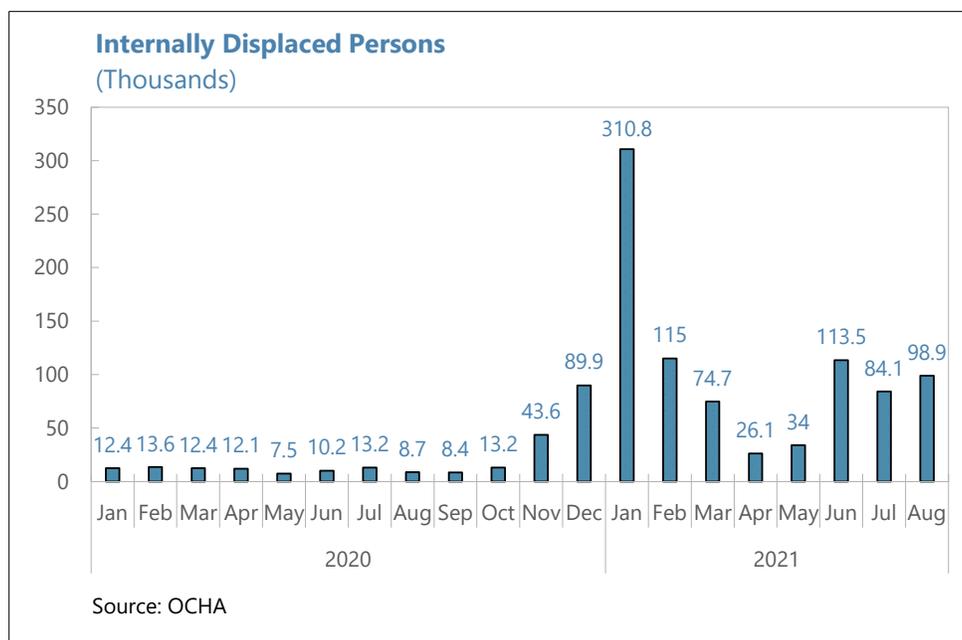
B. Food Insecurity Landscape

2. **Somalia is facing famine conditions in some areas.** As of September 12, 2022 close to 30 percent of Somalia's population (4.3 million people) is facing critical food insecurity³ with around 121,000 people facing starvation, according to the [Integrated Food Security Phase Classification](#) (IPC). Children are disproportionately facing the brunt of the famine, with food insecurity leading to an estimated 54.5 percent (1.8 million) of all children under the age of five facing acute malnutrition between August 2022 and July 2023, according to [UNICEF](#) report. Water-borne diseases are ravaging the younger population, aggravating child malnutrition, and contributing to higher child morbidity and mortality rates. The famine-like conditions have displaced roughly 1.1 million people between January 2021 and August 2022. The rising number of newly internally displaced persons (IDPs) is placing increased pressure on food security in IDP settlements and urban localities. The impact of the prevailing drought conditions is worse than that observed during the 2011 and 2016 droughts as it comes on the back of four consecutive failed rainy seasons.

¹ Prepared by Chandana Kularatne, in collaboration with Altan Butt and Muriel Calo of the World Food Program, Somalia.

² The importance of food security is captured by the United Nations Sustainable Development Goal 2 (Zero Hunger).

³ See "[Somalia faces increased Risk of Famine as acute food insecurity, malnutrition and mortality worsen](#)", FSNAU, June 4, 2022.



3. The recent food insecurity in Somalia stems from the confluence of two shocks:

- Prolonged drought:** An escalation of drought conditions following an unprecedented fourth consecutive failed rainy season, a climatic event not seen in at least 40 years. Drought conditions are particularly acute in the central and southern Somalia. The lack of sufficient rainfall has led to widespread water scarcity (80 percent of the water sources are drying), including the Shabelle and Juba rivers⁴ where water levels are 30 percent below their average.⁵ As of end June 2022, an estimated 4.5 million people are facing acute decline in water quality and quantity, leading to water-borne diseases

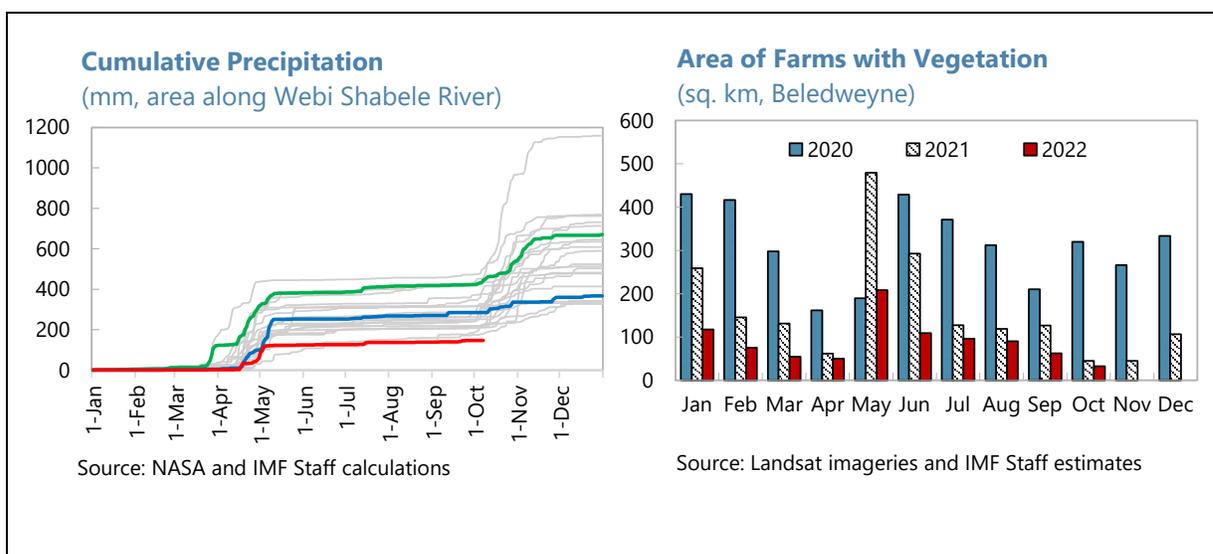
This failure of the rains has led to a deterioration of crop and livestock production. Water scarcity has led to the devastation of grazing areas contributing to widespread livestock deaths. Cumulative livestock deaths in the worst affected areas are expected reach as high as 20- 30 percent, according to the [IPC May-Sept 2022](#). Widespread crop failure, more than 40- 60 percent of long-term average, for both irrigated and rainfed crops is affecting the availability of staples.⁶ Most recent [FAO data](#) indicate that a roughly a million tons of cereal imports would be needed to meet the shortfall in cereal production, which is 15 percent above the average for the previous 5 years

⁴ See [OCHA report](#).

⁵ Average rainfall along the Webi Shabelle River for the during the 2022 Gu season (April-June) was 88.6 mm, was lower than the preceding three years and rainfall during the 2011/16 drought.

⁶ [Somalian meals](#) consist of mainly staple commodities (maize, sorghum, rice, wheat and pasta), oil and, with limited consumption of nutritious foods, such as fruits and vegetables.

- Impact of Russia’s war in Ukraine on global food supply and prices:** Russia’s war in Ukraine has aggravated food insecurity. In 2021, Somalia imported 80 percent of non-milled wheat directly from Ukraine and [53 percent](#) of the food assistance (primarily wheat) provided through the World Food Program (WFP) is sourced from Ukraine. Given that almost two-thirds of overall weekly household consumption food expenditure is accounted for by cereals (mostly consisting of maize, sorghum, and imported rice and wheat),⁷ the impact of the war in Ukraine on food insecurity is significant. Moreover, global food inflation has accentuated domestic food price inflation to 70 percent for cereals in June 2022 from 2 percent a year earlier. This has led to reducing access and availability of staples in Somalia, particularly to the poor.



C. Structural Drivers of Food Insecurity

4. Somalia is faced with a chronic food crop deficit. Domestic production only satisfies 22 percent of per capita cereal needs on average, and the remainder is covered through food imports and a chronic dependence on food aid.⁸ Notwithstanding an uptick in private sector investments in the agriculture sector since the 1991 civil war, planted acreage has declined by about one-third and the yield for the country’s two important cereal crops—maize and sorghum⁹— has remained relatively constant for the last 30 years.¹⁰ When compared to other country groups, in 2018, Somalia’s cereal yield is around one-fifth of the median yield in lower-middle income countries and just over half the median yield across fragile and conflict-affected states. This has

⁷ From Hussein, M., Law, C., & Fraser, I. 2021. An analysis of food demand in a fragile and insecure country: Somalia as a case study. *Food Policy*, 101, 102092. doi.org/10.1016/j.foodpol.2021.102092).

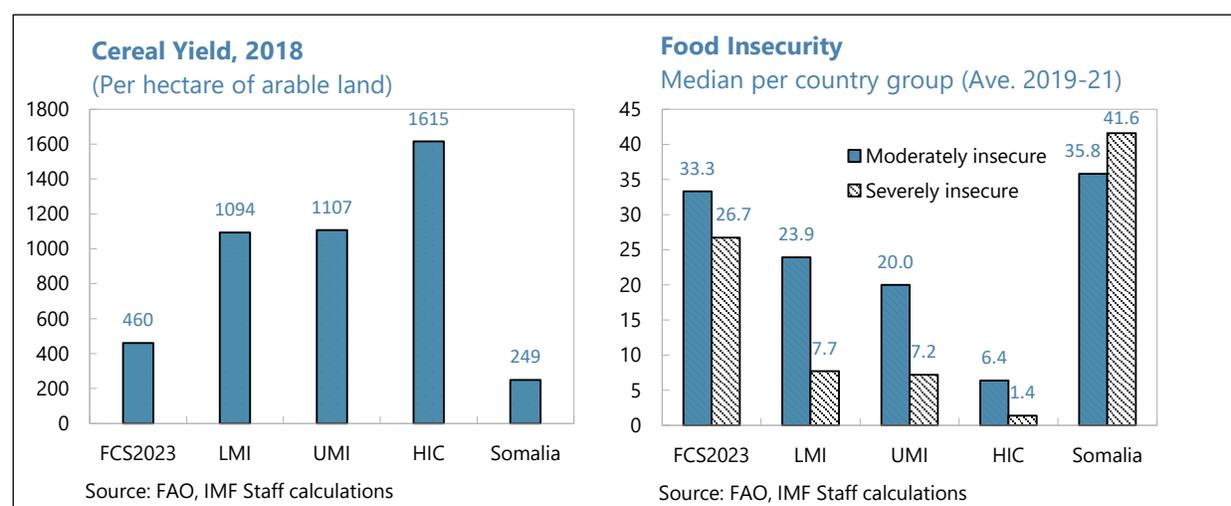
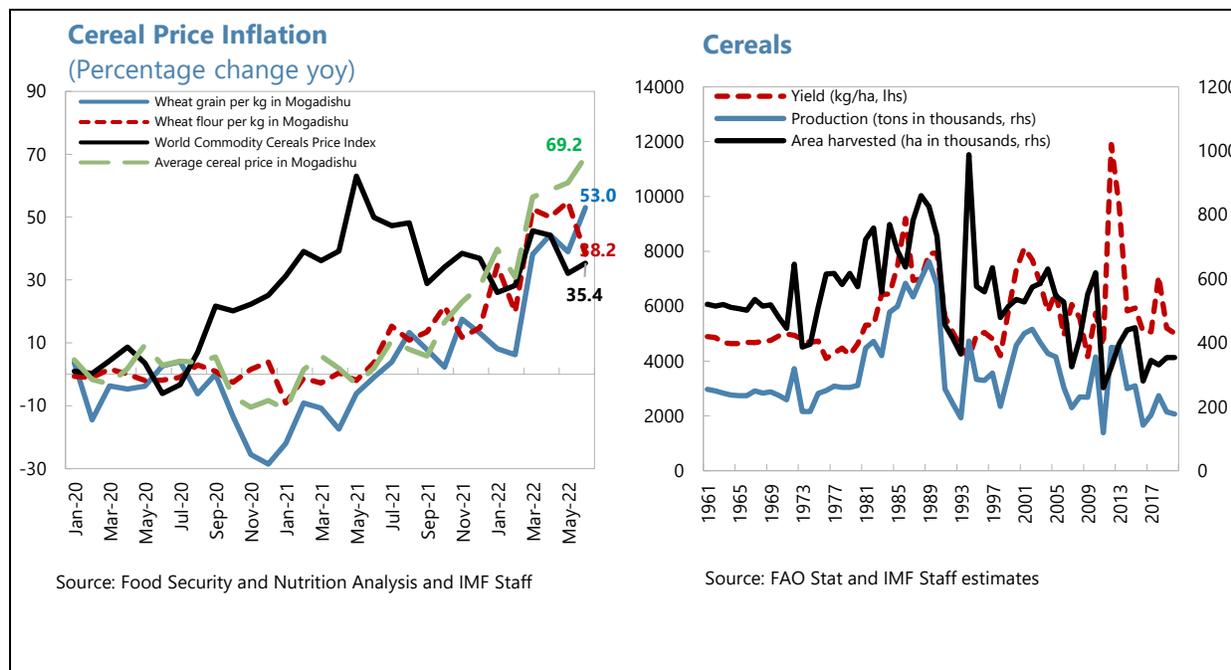
⁸ For the last 5 years, annual cereal production has averaged only approximately 200 000 tons relative to production of 650 000 tons in 1988 - [Source: FAO. 2021a. FAOSTAT Database.](#)

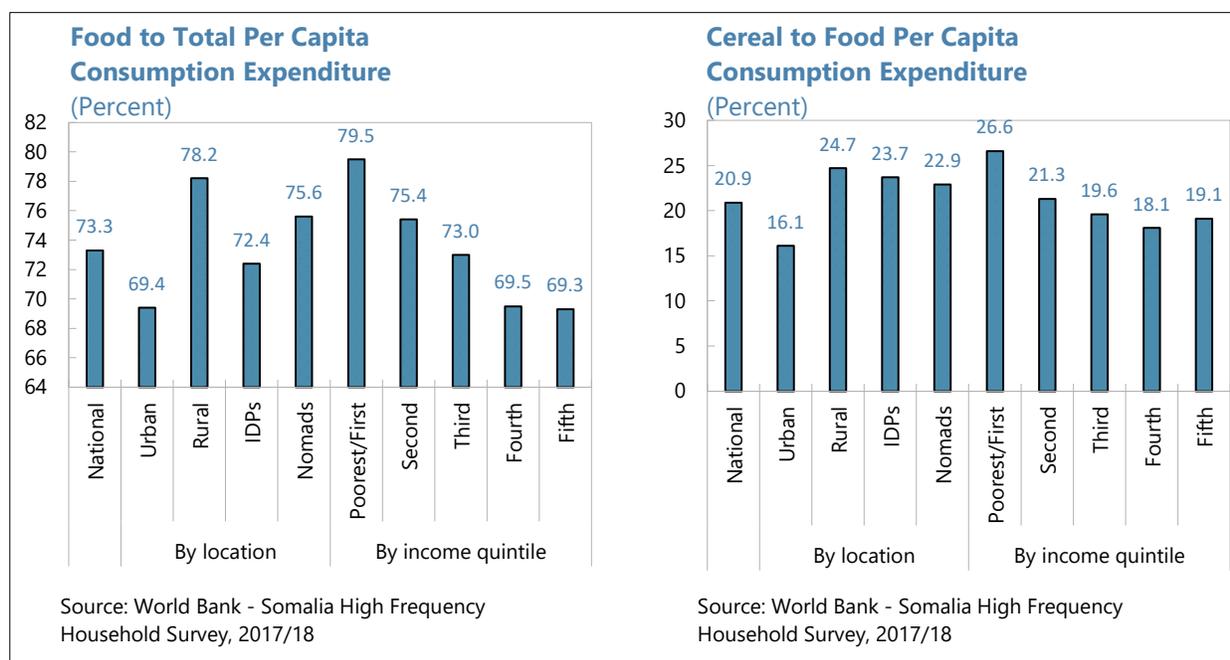
⁹ Maize is typically grown under irrigation while sorghum is grown under dryland conditions as it is more drought-resilient crop.

¹⁰ Yields average around are 1 to 1.50 tons/ha for maize and 0.3 to 0.6 tons/ha for sorghum. Potential yields of these crops vary between 10 to 15 MT for maize and 5 to 10 MT/ha for sorghum (Gavin et al. 2018).

contributed to higher food insecurity in Somalia, much higher than the median level of food insecurity across fragile states.

5. Food consumption expenditure weighs heavily on overall consumption, of which cereal consumption expenditure is the single largest food item. Close to three-quarters of overall consumption expenditure is on food. Cereal consumption expenditure accounts for close to a quarter of overall food expenditure. For poorer segments of society, who tend to reside in rural areas or classified as IDPs, food consumption (and cereal consumption) expenditure weigh more heavily on their consumption basket.





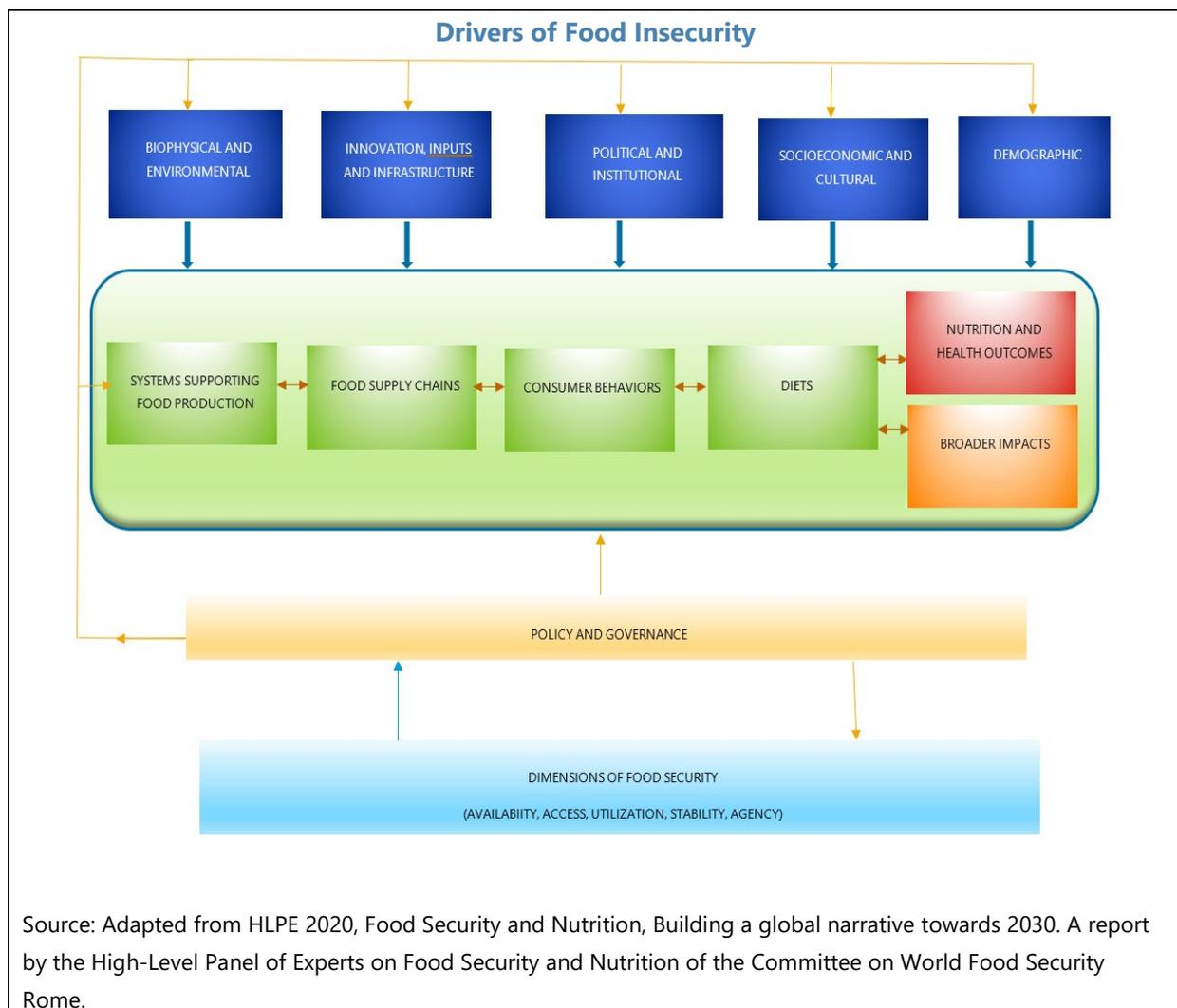
6. Somalia faces several structural drivers of food insecurity. Employing an adaptation of the High-Level Panel of Experts on Food Security and Nutrition (HLPE) framework,¹¹ the following five drivers affect food security in Somalia:

- **Biophysical and environmental hazards.** Somalia's crop production is affected by geography, climate change, and pestilence. Somalia's arid or semi-arid rangeland, with only 1.8 percent arable land, faces significant challenge in increasing crop production.¹² The rising intensity and frequency of erratic rainfalls and severe droughts exacerbate the country's water scarcity, adversely affecting food security. Crops and livestock are also frequently affected by endemic pests. In 2020 desert locust crisis caused significant crop damage and significant losses to livestock grazing pastures; threatening food security and livelihoods.
- **Political.** Protracted domestic conflict augmented by climate change related conflicts, further aggravate the food crisis. There was a sharp decline in crop production owing to the civil war in

¹¹ The HLPE is the United Nations body for assessing the science related to world food security and nutrition. The HLPE identifies five main categories of drivers of food security are: biophysical and environmental; innovation, inputs and infrastructure; political; socioeconomic and cultural; and demographic drivers. Biophysical and environmental drivers include natural resource and ecosystem services, and climate change. Political drivers include political instability, conflicts and social tensions. Socioeconomic and cultural drivers include macroeconomic instability, poverty, inequality, food prices and volatility, culture, social traditions and women's empowerment. Demographic drivers include population growth, changing age distribution, urbanization, migration and forced displacement. The relative impact of each driver will depend on the type of food system in question, the type of actors involved, and the type of actions and policies that are decided upon ([Nesheim et al., 2015](#)).

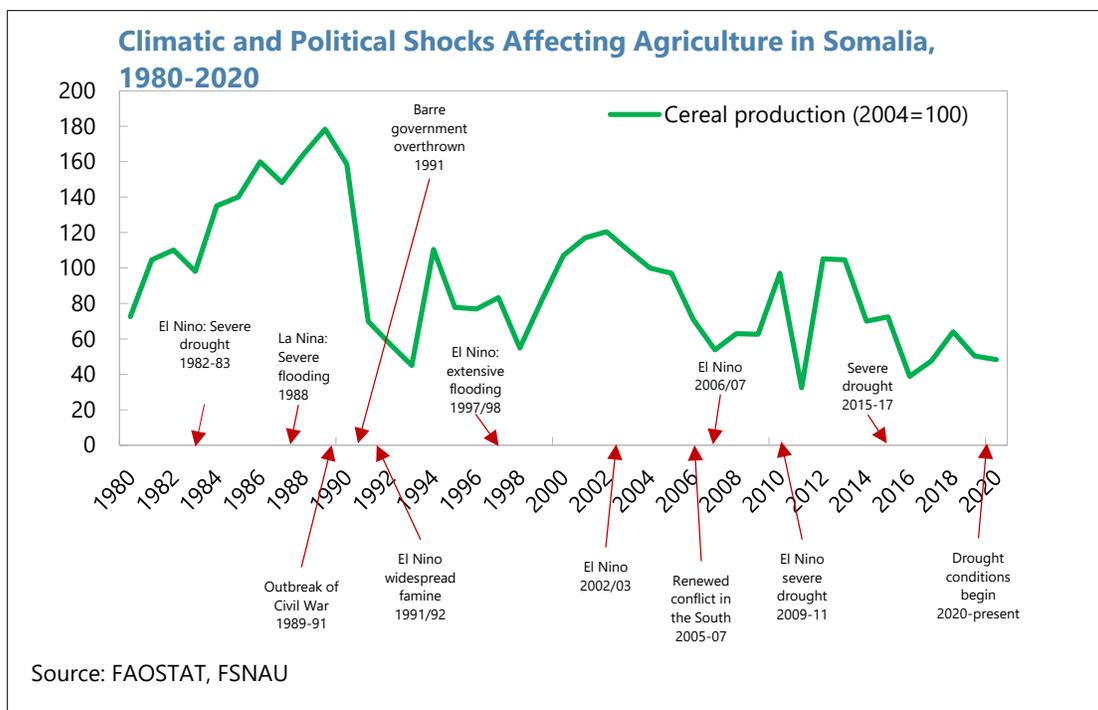
¹² Somalia's traditional livestock sector is based on nomadic and agropastoralists that make up about a third of the population.

1990 to 2012.¹³ Moreover, since 2006, the militant group Al-Shabaab has exerted control over South West and Hirshabelle regions, where the bulk of the cereal production (maize and sorghum) occurs,¹⁴ and has been known to demand payment from aid agencies in return for access. Moreover, these protracted conflicts are further amplified by climate change fueled conflict. The latter [intensifies the competition for scarce pasture lands](#), leading to an increasing shift toward more private enclosures which were historically used for open livestock grazing by nomads, causing severe overgrazing and limiting natural vegetation recovery between seasons. Such actions are pushing households to shrinking communal rangelands for livestock grazing, source of intractable social conflicts.



¹³ The country was almost self-sufficient in cereal production (maize and sorghum) in the late 1980s and was an exporter of bananas to Italy and Middle Eastern countries. Crop production showed a peak in the 1980s followed by a sharp decline after 1990.

¹⁴ See [Economist](#).



- Innovation, inputs and infrastructure deficit.** Low access to infrastructure and related services, particularly in rural areas,¹⁵ together with high cost and lack of agriculture extension (such as post-harvest storage, food processing facilities) and veterinary services hinder agriculture production and productivity. Limited rural connectivity curtails access to markets. High cost and lack of access to electricity supply is a critical reason for insufficient irrigation infrastructure.¹⁶ The lack of access to a reliable electricity supply, implies that farmers rely on generators (powered by diesel) to irrigate the farmland. In some cases, when fuel prices increase significantly, farmers use of irrigation may be limited if costs cannot be passed on to the consumer. The lack of water supply is particularly acute in the rural areas. Insufficient and low-quality agricultural inputs coupled with limited innovation and know-how also stymies agriculture production and productivity. Somalia's herders continuously face inadequate supplies of fodder, while farmers lack sufficient improved seed varieties. There is a dearth of research programs to support improved seed varieties and crops. The shortage of skilled labor owing to the poor quality of education in most agricultural universities in Somalia impedes such innovation.¹⁷

¹⁵ Somalia's [Rural Access Index](#) measures 31.2 out of 100 in 2016. The Rural Access Index (RAI) measures the proportion of the rural population who live within 2 km of an all-season road.

¹⁶ In 2020, 43 percent of the population have access to electricity which is lower than the average for fragile states (60 percent).

¹⁷ Heritage Institute. 2020. [Somalia's agriculture and livestock sectors: a baseline study and a human capital development strategy](#). Heritage Institute for Policy Studies and City University of Mogadishu. reliefweb.int/sites/reliefweb.int/files/resources/Agriculture-HCDM-REPORT.pdf

- **Socioeconomic and cultural.** Notwithstanding shocks, a majority of the population is generally food insecure due to the high poverty rate and inequality. The high poverty rate (70 percent of the population) combined with expenditure on food by most households (on average) around 75 percent of total expenditure means that affordability of basic food requirements remains a significant challenge for most Somalis.¹⁸ Any uptick in food price inflation or negative economic shocks to livelihoods would severely impact food insecurity. The relatively high level of income inequality (Gini index of 37), particularly in rural areas,¹⁹ implies that food insecurity affects certain people (such as agropastoralists and nomads who have the highest rates of monetary poverty and are most vulnerable to droughts and associated income shocks and global food price volatility)²⁰ more than others.

Poor animal husbandry and land use coupled with land degradation accentuates the impact of climate shocks on food security. Deforestation in Somalia,²¹ driven primarily by charcoal production (for domestic consumption and exports) and the rising use of firewood for cooking and lighting owing to high energy prices, is a key reason for land degradation. Deforestation also heightens the impact of cyclical droughts and floods. Poor agricultural and pastoral practices (such as overgrazing) are adversely affecting productivity in the agriculture sector. Land use changes—such as increased illicit communal rangeland enclosures for private use—have all weakened the productivity of pastoral and agropastoral systems.

Despite women playing a significant role in the agriculture sector, women face significant barriers to enhance their productivity, making Somalia more food insecure. Women's access to land, agricultural employment opportunities, and extension services needed to strengthen technical skills and vocational training is substantially less than for men. Low levels of literacy and education affect their ability to benefit from agricultural extension and training. Financial inclusion of women trails that of men, illustrated by the fact that only 0.8 percent of women, compared to 2.3 percent of men, had received loans from formal financial institutions in 2011. There is evidence to suggest that better financial literacy of women can have the added benefit of improving the use of household cash flows. Due to the lack of collateral, access to financial services remains a challenge particularly for women across the country, and especially in rural areas, limiting their opportunities to invest and expand output.

¹⁸ The poverty rate is close to 70 percent (USD 1.90 per person per day). Moreover, with an additional 10 percent of the population living within 20 percent of the poverty line. See World Bank. 2019a. [Somali Poverty and Vulnerability Assessment: Findings from Wave 2 of the Somali High Frequency Survey](#). Washington DC, USA, World Bank.

¹⁹ Income inequality is highest in rural areas, with a Gini index of 41 percent in rural areas, 34 percent in other urban areas and 26 percent in Mogadishu according to World Bank (2019a).

²⁰ World Bank. 2019a. [Somali Poverty and Vulnerability Assessment: Findings from Wave 2 of the Somali High Frequency Survey](#). Washington DC, USA, World Bank.

²¹ In the last two decades, annual loss in forest cover has ranged between 144 sq. km in 2004 and 1,164 sq. km in 2016.

- **Demographic.** Emigration and rising urbanization have deprived the agriculture sector of labor. There has been continuous migration from rural to urban areas over the last half century and Somalia has become much more urban as a result. This decline in the percentage of rural populations has occurred in all regions of the country, due in part to a combination of conflict, drought, flooding and the desire for a better life. The diminished productive labor in rural areas in turn adversely affects food security.

D. Coping Strategies and Social Assistance

7. Households employ several coping strategies in the face of rising food insecurity. With limited access to financing and formal safety nets, households use a variety of coping mechanism to deal with food insecurity that can perpetuate poverty. These include distress sale of assets or consuming productive assets (such as livestock), incurring high-cost borrowing, taking [children out of school](#) into work, foregoing medical care, reducing meals, and/or moving to IDP settlements/ relatives living in urban areas (See Table 1.). The four consecutive failed rainy seasons is placing significant pressure on the ability of households to continue employing these coping mechanisms to mitigate the impact of the droughts on food security.

8. Remittance inflows, close to 30 percent of GDP, do help households cope with food insecurity, although they may not reach the most vulnerable. Given the high costs to emigration, Somalis in the diaspora tend to be from middle to upper income households. Therefore, remittances tend to flow back to higher income households.²² Remittance inflows to a given community depend on links to the business community within Somalia and diaspora; financial position of diaspora in the host country; and (sometimes) working with Al-Shabaab to facilitate the transfer of funds, according to [Maxwell et al. \(2016\)](#). Moreover, due to remittance fatigue owing to COVID-19 support provided by the diaspora and the slowdown in the global economy, there are indications of a moderation in remittance inflows in 2022

9. Social protection programs supported by development partners provide much needed assistance to food insecure households. WFP is addressing basic food needs by: (1) providing curative and preventive nutrition to children under age 5 and pregnant and nursing mothers; (2) cash-based assistance in the form of food vouchers or e-cards to drought-affected areas; and (3) strengthening climate-smart food systems and supporting the government in implementing safety nets and other social protection programs. In May 2022, the WFP reached 2.3 million people with relief assistance and is working to scale up lifesaving food and nutrition support to reach 4.1 million people through June 2022—contingent on availability of resources. The Baxnaano social safety net program—a government program financed by the World Bank and implemented by the WFP—provides unconditional cash transfers to 200,000 poor and vulnerable households with children, reaching about 1.2 million people. The coverage of the program is being temporarily expanded to another 155,000 households for 6 months. The International Committee of the Red Cross (ICRC) is also providing emergency response.

²² See [Maxwell, Majid, Adan and Abdirahman and Kim \(2016\)](#).

Somalia: Coping Strategies During a Famine			
Category	Examples	Level	Application/Severity
Diversification	<ul style="list-style-type: none"> Diversify livelihoods and assets Diversification of risk Diversify against drought risk (riverine farming and/or camels) Have a foot in the urban economy 	Individual/household Some diversification within clan or larger group	Mostly applies in the longer term and a means of reducing risk, not as a means of coping with shocks
Flexibility	<ul style="list-style-type: none"> Physical mobility with livestock Labor mobility (employment) Exploit different opportunities (including humanitarian aid) Outmigration as a last resort 	Household/Community-level decisions about when to move?	Limited ability to move condemned some small-scale livestock holders, but others suffered large losses far from home
Social “correctedness”	<ul style="list-style-type: none"> Forms of mutual support Usual: remittances; Unusual: diaspora/urban contacts, etc. Having “someone to cry to”; three overlapping circles model 	“Second circle” community level/clan level Partly business level	Diaspora remittances stepped up in famine: food, water trucking Third circle as “system failure”
Political power	<ul style="list-style-type: none"> Access to/control over aid 	Household/Community	Gatekeepers from powerful clans in IDP settings
Crisis asset protection	<ul style="list-style-type: none"> Sharing food or assets with livestock Buying water for livestock Moving livestock in search of grazing and water Leaving someone behind to protect land if migrating Decision making about when to sell animals, when to move, etc. 	Household/Community	Feeding cattle thatch from roofs during drought Timing of livestock sales Out-migration usually as a last resort
Asset sales/depletion	<ul style="list-style-type: none"> Sale of livestock Sale of other productive assets Land pledging or mortgaging 	Household/community	
Rapid livelihood adaptation	<ul style="list-style-type: none"> Renting farmland (esp. riverine) to protect animals (access water/fodder) Sharing lactating animals—move with non-lactating animals Natural resource extraction: firewood, charcoal, thatch grass Search for casual wage employment 	Household or inter-household Wage labor in community as form of social reciprocity albeit a form of exchange	Some of these are “normal” livelihoods for poor people, others are coping strategies in crisis
Credit	<ul style="list-style-type: none"> Use of savings/borrowing/debt Borrowing/purchase on credit as one form of social connectedness 	Household/Business	Social networks portrayed in positive light; can lead to long-term indebtedness
Consumption strategies	<ul style="list-style-type: none"> Changing diets Borrowing food or money Rationing strategies Going hungry 		
Household and interhousehold demographic strategies	<ul style="list-style-type: none"> Family splitting—both consumption- minimization strategy and resource-acquisition maximization strategy Opportunistic access to aid resources/household splitting Labor-sharing 	Household/Inter-household/Community	

Source: Maxwell, Majid, Adan and Abdirahman and Kim (2016)

10. Given the limited capacity and resources available to the government, there is an urgent need for development partners to mobilize additional funding. Over the next six months, it would be necessary to expand life-saving support to 4.1 million people to combat the growing food insecurity in order to avert a nation-wide famine.²³ As of end-August 2022, [67 percent of the required US\\$1.5 billion](#) needed (according to the UN Humanitarian Response Plan) to respond to the food insecurity crisis has been received. This support is even more urgent as the prospects for failed rainy season (October-December) are [predicted](#) to be more likely. The impact on food insecurity would be catastrophic without additional support from development partners,

²³ WFP Somalia (2022). *Note on Famine Prevention Response*, states that in May 2022, WFP reached 2.3 million people.

particularly since this would be the fifth consecutive failed rainy season and this season typically contributes 70 percent of the total annual rainfall.

E. Policy Implications

11. Concerted policies and actions across a range of fronts are needed to strengthen food security in Somalia. Some of the avenues to improve the productivity and productive capacity of the agriculture sector include (i) building quality transportation networks, logistical services, cold storage facilities, irrigation facilities and other ancillary infrastructure which will be needed to mitigate the impact of climate shocks; (ii) strengthening land management including the land tenure system; (iii) more inclusive access to credit; (iv) extending agriculture extension services to be deployed in innovative and cost-effective ways to help producers by increasing their knowledge of agronomy and animal husbandry; (v) introducing modern inputs, including improved fertilizers; and (vi) improvements in the sector's institutional support structures.

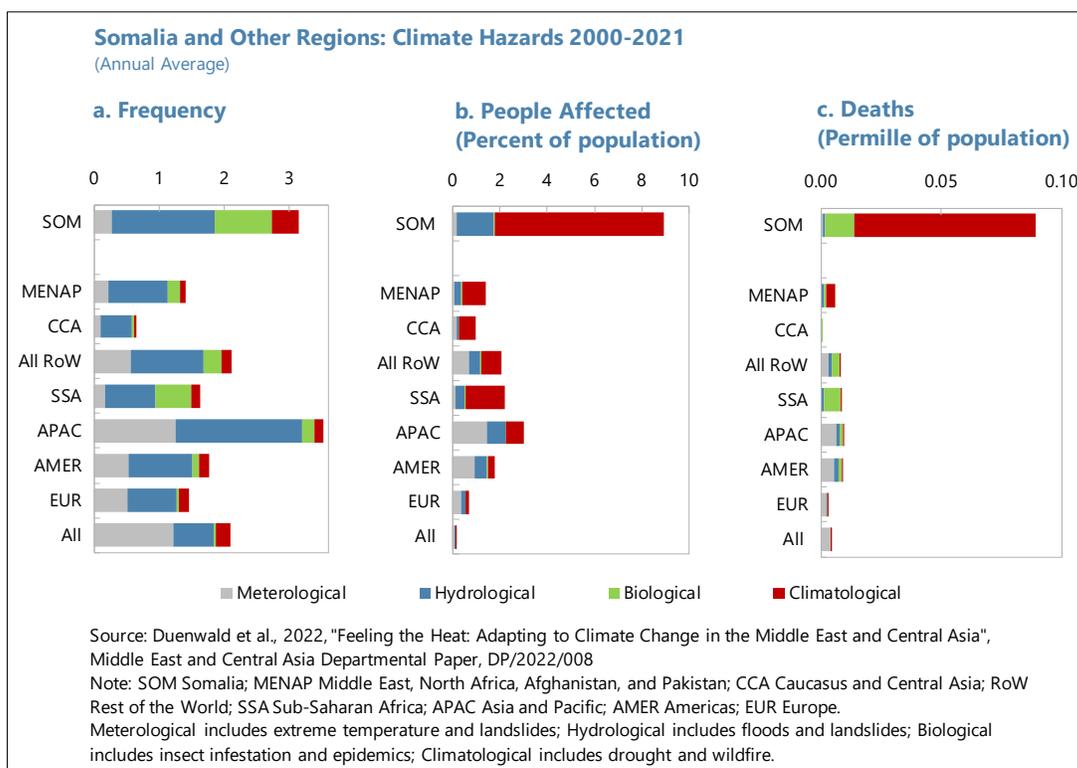
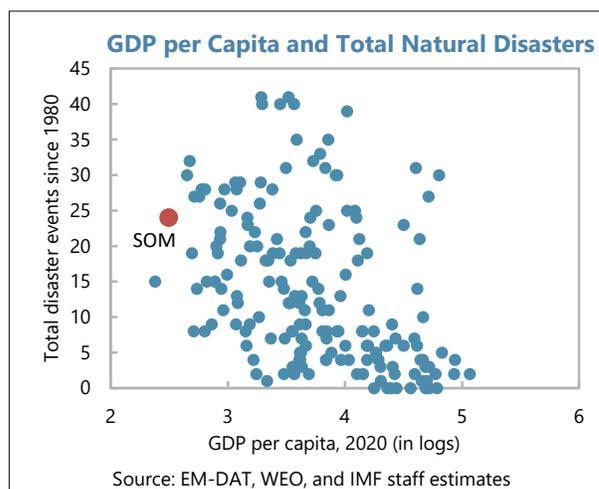
12. While several of these areas are beyond the Fund's expertise, there are specific macro-critical policies where the Fund can help Somalia build resilience to food security shocks. In particular, the implementation of the following macroeconomic policies can be key to support the broader efforts to address the food security challenge in Somalia:

- **Strengthening domestic revenue mobilization.** Increases in revenue collection will provide resources for the government to finance an expansion and improvements in productivity-enhancing infrastructure and agriculture extension services. Additional revenue will also create the fiscal space to mitigate the impact of shocks on food security.
- **Improving the efficiency of public expenditure.** Quality public investment can support the private sector in developing robust food supply chains. Enhancing the efficiency of public investment management will ensure that these projects continue to deliver for their communities in the long run. Strengthening public financial management to improve the credibility and execution of the budget will advance the effective delivery of public investment in the agriculture sector. Additionally, as Somalia transitions towards a government social safety net system, setting up a social security system which limits program duplication and fragmentation and improves coordination and targeting is critical. In this vein, the HIPC Completion Point Trigger which stipulates that establishment of a national unified social registry supports registration and determination of potential eligibility for social programs.
- **Enhancing financial inclusion.** This is expected to encourage private domestic and foreign investment in the agriculture sector and will enable households to cushion shocks. Limited access to credit imposes constraints on the growth of the agriculture sector. Credit availability is limited for small commercial activities, particularly of an informal character, and especially those located outside urban centers and rural towns. Households too, face challenges in accessing financing –limiting their flexibility to make optimal long-term investments in their own subsistence activities. Access to mobile money has helped expand credit access. Improved financial literacy will support greater financial inclusion, particularly for women. Looking ahead, banks should be encouraged to continue extending services to the unbanked and informal sector participants.

EXPOSURE TO CLIMATE SHOCKS¹

Somalia is highly vulnerable to climate-related shocks and climate change. Somalia not only faces frequent climate shocks, but the impact of these shocks on the population and deaths is more severe compared to others. Climate shocks interact with Somalia's other structural characteristics and fragilities, exacerbating the negative impacts on people and the economy.

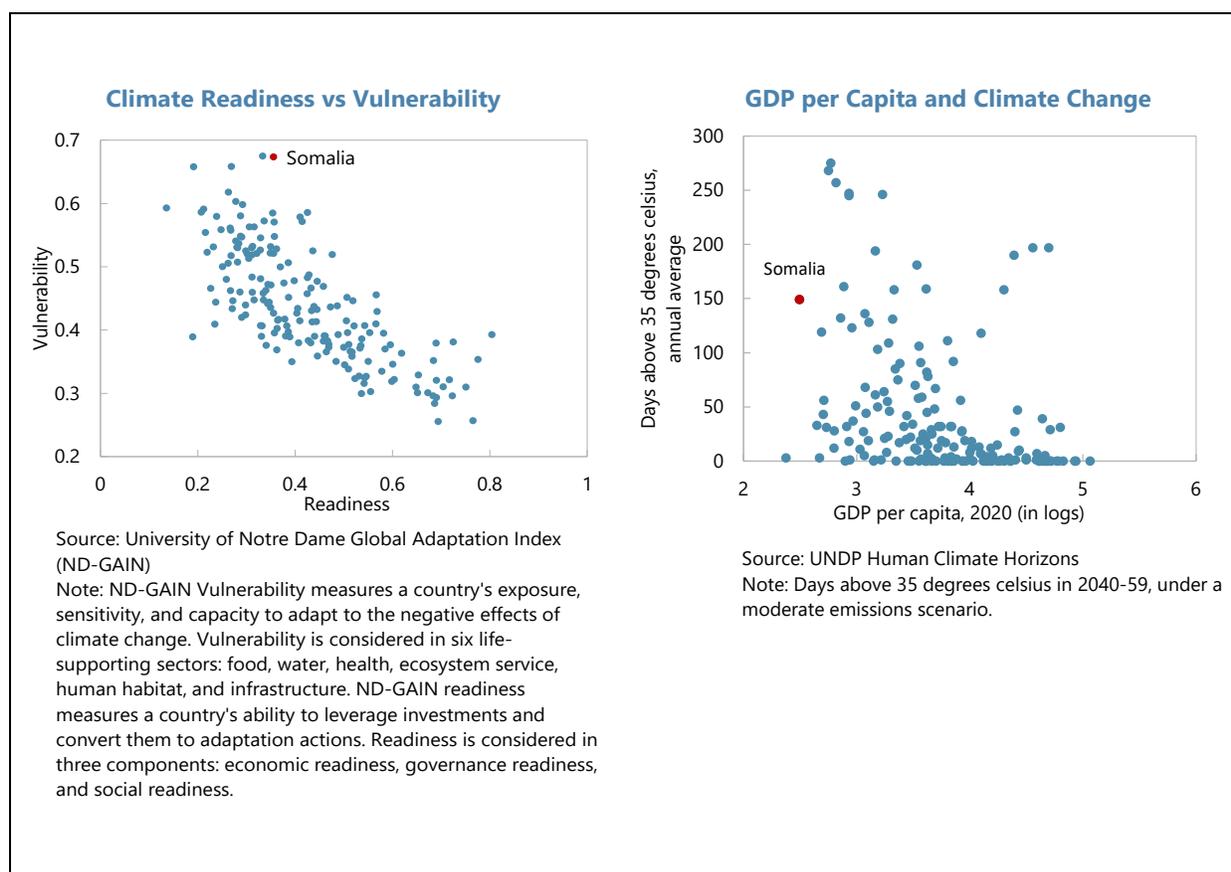
1. Somalia is exposed to frequent climate shocks. The frequency of natural hazards occurrence in Somalia has been relatively high compared to other countries, including floods, droughts and insect infestations. At the same time, the humanitarian impact of these shocks is more severe than average across different regions. An estimated 9 percent of the population is affected by these climate shocks every year, compared to less than 3 percent of the population in other regions. Deaths per mille of the population also extensively surpass the impact observed in other regions.

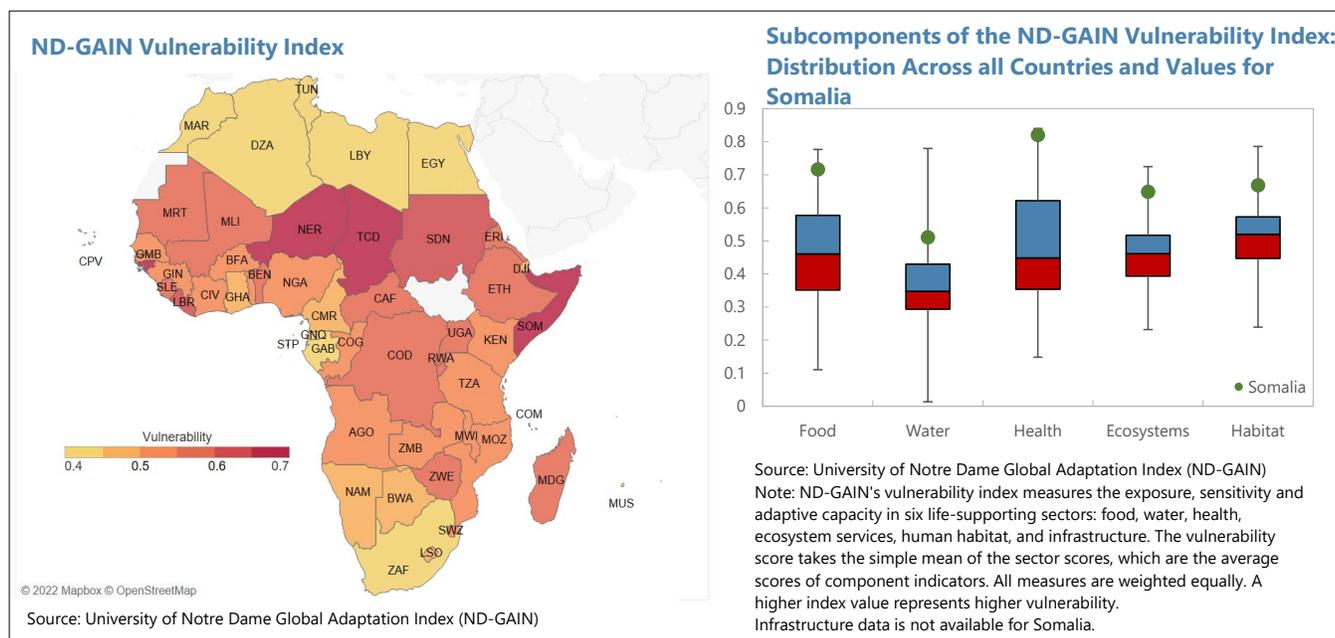


¹ Prepared by Fang Yang, Rhea Gupta, with contributions from William Irungu, and Mohamud Osman.

2. Somalia is also among the most vulnerable countries in the world to climate change.

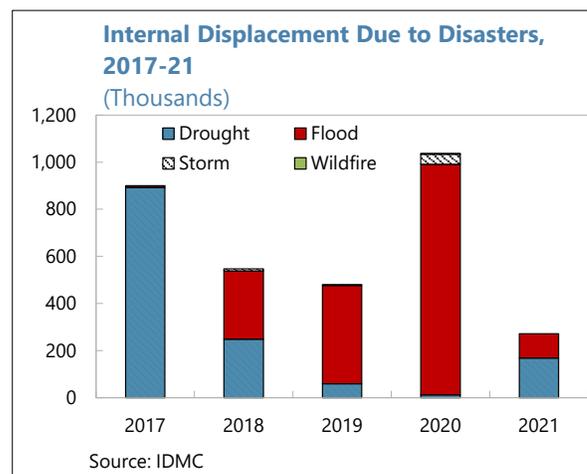
According to the University of Notre Dame Global Adaptation Index (ND-GAIN), Somalia is the second most vulnerable country in the world to climate change, among 182 countries. Compared to peers, Somalia is also the second most vulnerable country in Africa and among fragile and conflict affected states. Somalia's vulnerability to climate change reflects its exposures, sensitivity, and weak capacity in five sectors, including food, water, health, ecosystem services, and human habitat. In particular, Somalia has high dependency on imported food and energy, low access to fertilizer and pesticide, weak health services, and inadequate infrastructure for irrigation, reliable drinking water, roads, and electricity. Simulations by [UNDP Human Climate Horizons](#) also suggest that Somalia will be highly affected by climate change, and in particular rising temperatures that will lead to a high number of days above 35 degrees Celsius.





3. Climate shocks interact with Somalia's other structural characteristics and fragilities, exacerbating the negative impacts on people and the economy.

- **Heavy reliance on rain-fed pastoral agriculture.** Climate shocks affect both livestock and crops, which are an important source of livelihood for a large part of the population.² Livestock remains the traditional repository of household wealth in Somalia and is the largest export (80 percent of total exports of goods).
- **Weak coping mechanisms fuel internal displacement.**³ Climate shocks have been associated with a significant increase in the internally displaced population (IDP).
- **Severe security risks.** Conflicts have exacerbated the impact of climate shocks. While rain-fed agriculture implies that the crop production is generally positively correlated with precipitation, severe security risks create disincentive to investments in agricultural production. The figure below illustrates the interaction between farm vegetation and conflict events in the Beledweyne

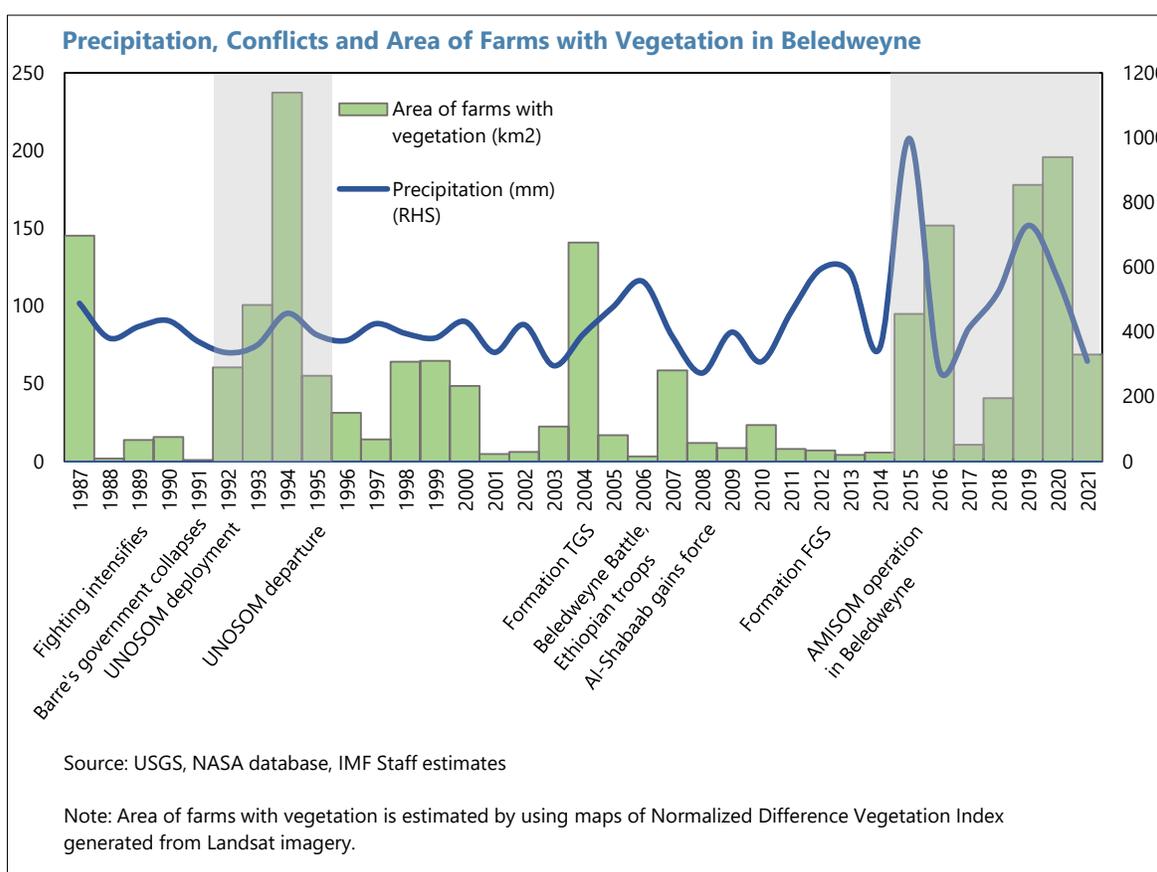


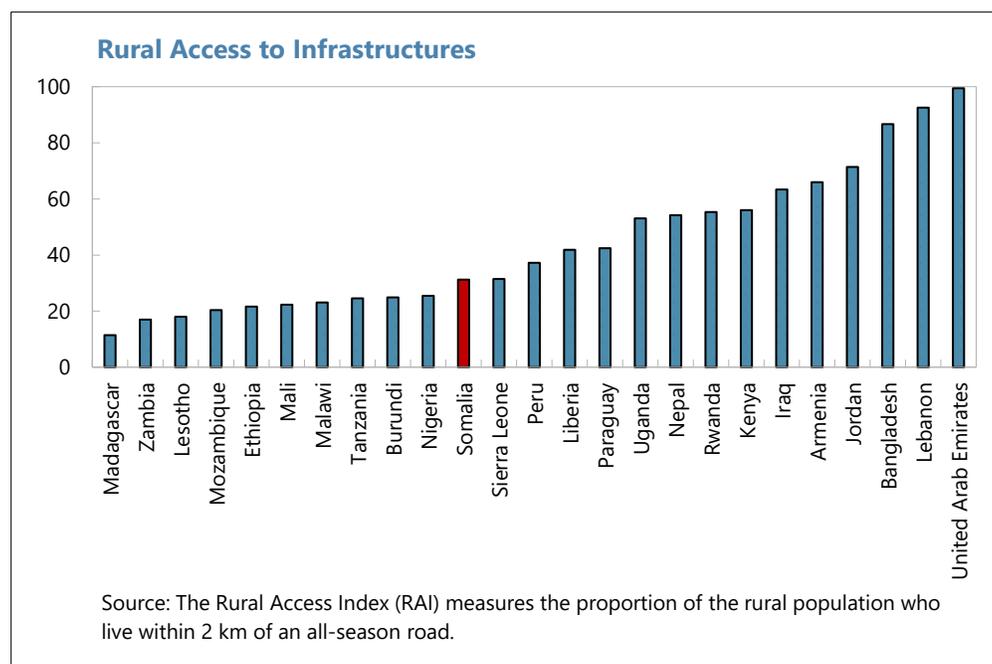
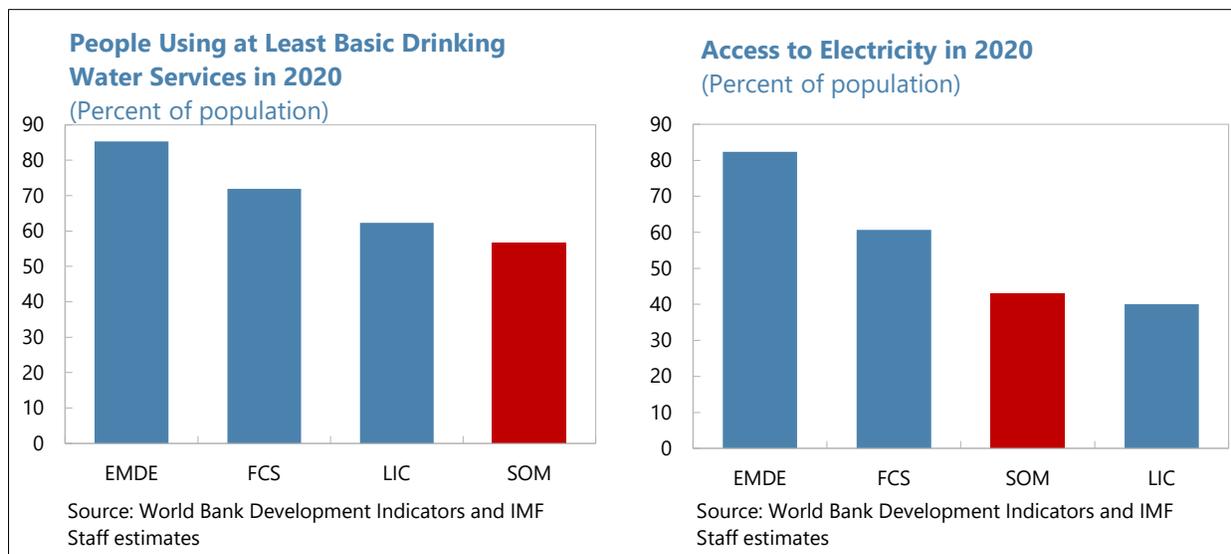
² See [World Bank \(2018\)](#)

³ See Selected Issues on "Food Insecurity" for a discussion on household's coping strategies.

region, considered to be the “food basket” of Somalia but an agricultural area heavily impacted by the presence of Al-Shabaab. The figure suggests that agricultural production has fallen significantly in this region during times of intensive fighting and improved when there has been more stability and security, though still influenced by precipitation patterns.

- **Severe infrastructure deficit**, due to lack of resources and security threats. The population having access to basic drinking water and electricity in Somalia are lower than the average of low-income countries. Development of irrigation and drainage systems is very poor and there is no organized system of water allocation and management. The World Bank estimated that only 31 percent of the rural population have access to an all-season road within 2 km to where they live.





4. The authorities realize that climate change must be mainstreamed into policies to achieve sustainable growth. In 2020, the authorities issued the Somalia National Climate Change Policy that analyzed the impact of climate change on Somalia and laid out the policy framework and structural reforms of adaptation and mitigation measures forward.⁴ Given the limited domestic resources, there is an urgent need for development partners to support the adaptation strategies. Although adaptation will be a long-term continuous process in Somalia, it should start now.

⁴ Federal Republic of Somalia Authorities, 2020.

Box 1. Summary of Somalia National Climate Change Policy

Somalia is vulnerable to climate change given the importance of agriculture, livestock, water and forestry to the economy and these sectors' sensitivity to climate change. The government of Somalia recognizes that climate change must be mainstreamed into policies to achieve sustainable growth. The objective of National Climate Change Policy (NCCP) is to attain a prosperous and climate resilient economy through the adoption and successful implementation of appropriate and effective climate change adaptation and mitigation measure.

Adaptation. In terms of adaptation, sectors that need particular attention are agriculture, livestock, water, marine resources, forestry and biodiversity, infrastructure and urbanization. Policy measures include capacity building, promotion of technologies and investment in climate resilient infrastructures, and establishing early warning system. Investments in small scale and community level infrastructures will also be encouraged.

Mitigation. Greenhouse gas emissions of Somalia are insignificant. However, this does not make mitigation irrelevant. Somalia will promote renewable energies and the adoption of energy efficient technologies. The authorities will also improve the water, waste and sewage management to reduce overall resource use and increase efficiency.

Social aspects. Actions will be taken to strengthen the monitoring of impact of climate change on human health, employment, and gender equality.

Governance. The Directorate of Environment and Climate Change is the designated national authority over climate issues. A high-level policy coordination committee (the National Climate Change Committee) has been established, comprising the Prime Minister and the line ministries.

Financing. Somalia will require financial support from domestic resources and the international community, including bilateral, multilateral sources and international climate funds. The authorities will explore the available funding sources and ensure effective use of these resources. Public private partnership will also provide a platform for resources mobilization and engaging stakeholders.

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