

HORN OF AFRICA REGIONAL ECONOMIC MEMORANDUM

Overview

- Paul Brenton, Tom Bundervoet, Habtamu Edjigu,
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SECTION 1

Introduction

The Horn of Africa (HoA)¹ is most commonly known for its long history of fragility, catastrophic droughts, and seemingly intractable conflicts. A complex set of historical, ideological, political, economic, geographical, territorial, and environmental factors have created tensions within and between states, at times boiling over into inter- and intra-state violent conflicts. These conflicts have, in turn, further weakened states' capacity to provide public services, social cohesion, and further increased the vulnerability of its population (particularly in historically marginalized border areas), thereby increasing the risk of future conflicts. Climate change is now exacerbating an already difficult situation, leading to increased tension over natural resources. Successive shocks of different kinds have led to record numbers of displaced people and increased migration, mostly irregular, to Gulf countries.²

Yet the true picture of the HoA is more nuanced, and HoA countries could unlock significant common opportunities. Cities and towns across the HoA are growing, increasing the demand for food grown elsewhere in the region. The growth in urban incomes is increasing demand for higher-value foods, including processed foods and animal products, with the potential to benefit rural producers and create jobs across the agri-food value chains. The growth of secondary cities attracts service providers that can provide jobs for those migrating from rural areas and deliver services supporting the growth

of off-farm employment in rural areas.³ There is strong demand from the Gulf for some products produced in the region, in particular, meat and other agricultural products. There is considerable potential for enhanced cross-border trade, which is intrinsically transnational but mainly small-scale (informal) in the Horn, with significant potential to leverage entrepreneurship and greater private sector activity to generate jobs. For example, the positive impact of digital innovation to open up new economic opportunities and boost incomes has been demonstrated in Kenya, and the wider region could build on this experience.

The economic priorities in the region are consistent with the jobs and economic transformation (JET) agenda, which recognizes the role of connecting to markets in generating job-creating private investment, and the importance of building capabilities and linking workers to jobs. In the Horn of Africa, there is an opportunity to drive the JET agenda through deeper regional integration and investments in connectivity to improve access to markets across borders, realizing common opportunities to diversify, deliver jobs and reduce poverty and vulnerability. At the same time, however, implementing the JET agenda in the HoA will require dramatic improvements in education and other investments to build capabilities and overcome significant cross-border and interconnected risks, including currently poor human capital outcomes, large and rapidly growing numbers of youth, fragility, and environmental degradation and climate change.

¹ For the purposes of this report, the Horn of Africa is defined as a subset of the larger Horn and comprises Djibouti, Eritrea, Ethiopia, Kenya, and Somalia. The map in the Annex shows the smaller Horn of Africa and its main cities.

² In 2018, over 315,000 migration movements were observed between the HoA and the so-called Eastern Route (towards Yemen and the Arabian Peninsula), increasing to 469,000 in 2019 (DTM, 2019).

³ In Ethiopia, for example, the number of manufacturing firms in Addis Ababa grew by 48% (to 1,120) from 2010 to 2016, compared with growth of 81% (to 850) in the main secondary cities according to manufacturing census data.

The objective of this Regional Economic Memorandum (REM) is to strengthen the economic analysis available to policymakers on the challenges and opportunities for regional economic integration to support job creation and economic transformation in the Horn of Africa. It assesses the current state of regional economic integration, how policies and investments can deepen this integration, and how this could help to address the opportunities and challenges confronting the region. The analysis applies both an economic geography perspective (based on the 3Ds framework of the 2009 WDR – density, distance, and division)⁴ and the lens of the jobs and economic transformation (JET) agenda,⁵ whilst taking into account fragility and

conflict and the region’s complex and evolving political economy. This overview synthesizes the key findings of the analysis conducted for the HoA REM, full details of which are presented in a series of Background Papers. The overview briefly describes key aspects of the region’s economy and development progress (Section 2). Next, in Section 3, it presents features of the economic geography of the region and some key results from economic modeling and transport connectivity analysis. The findings demonstrate the salience of the JET agenda in the Horn, and this and its implications are discussed in Section 4. Finally, Section 5 concludes by highlighting the main policy messages which emerge from the REM’s regional-level analysis.

⁴ World Bank (2009), World Development Report 2009: “Reshaping Economic Geography”.

⁵ Special Theme: Jobs and Economic Transformation (English). IDA19 Washington, D.C.: World Bank Group.



SECTION 2

Background & Context

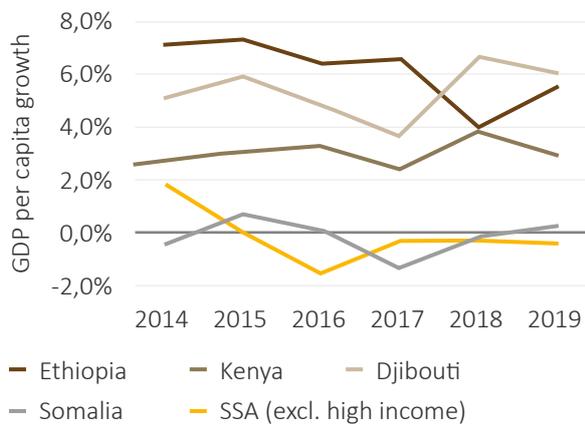
Positive growth and poverty trends from a low base

Between 2014 and 2019, growth in the HoA outpaced growth in Sub-Saharan Africa (SSA) as a whole. While real per capita GDP levels remained essentially flat in SSA (excluding high-income economies), they grew at an annual rate of four percent in the HoA (Figure 1).⁶ Ethiopia, Djibouti and Kenya recorded the highest per capita growth rates, while in Somalia economic growth hardly outpaced estimated population

growth. Despite the recent positive trends, income levels in the Horn remain below the SSA average. Average GDP per capita of the four HoA countries amounted to about US\$1,100 in 2019, compared to US\$1,600 for SSA (excluding high income). There is substantial variation within the HoA itself, with per capita income levels being 10 times higher in Djibouti than in Somalia (Figure 2).

Figure 1: Economic growth in the HoA was mostly solid

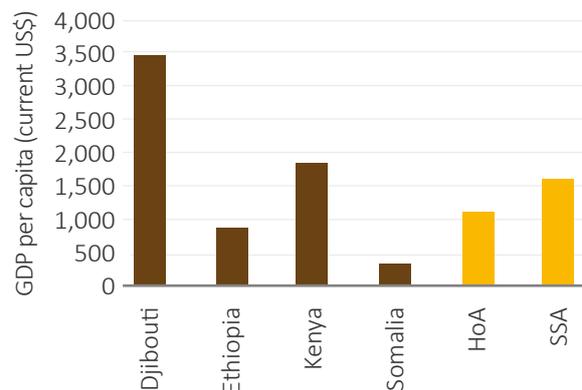
(Per capita GDP growth, 2014-2019)



Source: WDI, 2020; Somalia Economic Update, 2020. World Bank staff calculations.

Figure 2: Though income levels remain low in comparison

(Per capita GDP levels, 2019, current US\$)



Source: WDI, 2020. Somalia Economic Update, 2020. World Bank staff calculations.

Though trends in poverty have also been positive, the pace of poverty reduction has been too slow, and population growth too rapid, to reduce the number of people living in extreme poverty. For the three countries where data are available, poverty rates based on the US\$1.9 a day line decreased from around 40 percent in 2005 to 33 percent 10

years later.⁷ Given rapid population growth, the absolute number of people living in poverty rose by 9 percent over the same period. Poverty rates range from 17 percent in Djibouti to 69 percent in Somalia (Figure 3).⁸ Overall, an estimated 57 million people across the HoA live below the international US\$1.9 a day poverty line (Figure 4).

⁶ This does not include Eritrea for which there are no publicly available and reliable GDP data.

⁷ For Ethiopia, poverty surveys were conducted in 2004/5 and 2015/16. For Kenya, 2005/6 and 2015/16. For Djibouti, 2002 and 2017. Poverty is based on the international US\$1.9 poverty line.

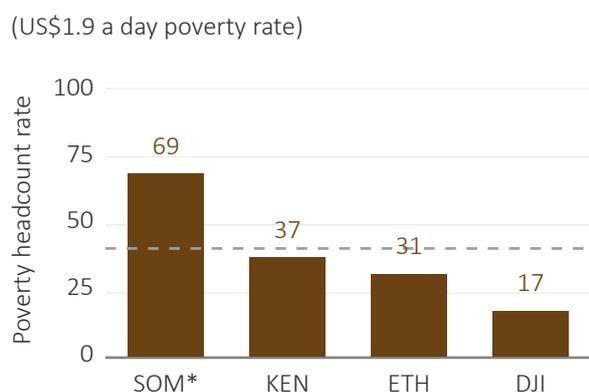
⁸ Somalia's poverty rate is estimated based on areas that were safe enough to survey. It does not include areas which were inaccessible due to insecurity.



Human development outcomes have improved in line with economic growth, though remain low. Between 2014 and 2019, the Human Development Index (HDI), a summary measure of average achievements in health, education, and living standards, improved in all countries except for Eritrea (Figure 5). However, except for Kenya, the HDI remains below the average for Least Developed Countries (LDC). With the exception again of Kenya, education outcomes

remain particularly poor, even among the younger generation. Between half and two-thirds of children finish primary school (except in Kenya, where completion is universal) and gross enrolment in secondary remains relatively low (Figure 6). Based on the most recent household living standards surveys, 45 percent of youngsters between 15 and 24 had completed primary school or more at the time of the survey (between 2015 and 2017, depending on the country).⁹

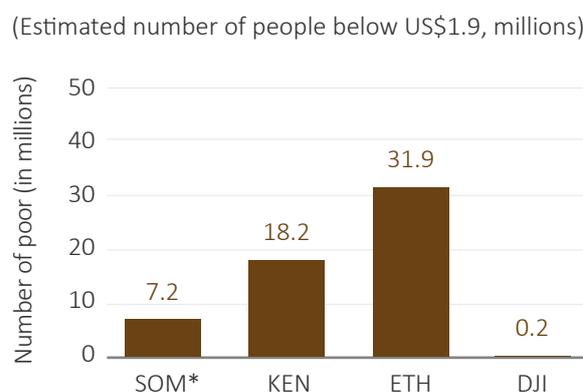
Figure 3: One third of the population lives below US\$1.9 a day



Source: World Bank staff calculations based on the latest survey available (2017 for Djibouti, 2015 for Kenya, 2015/16 for Ethiopia, and 2017/18 for Somalia). The dash line corresponds to the regional poverty headcount rate for the HoA (except Eritrea).

Notes: * indicates that Somalia's poverty rate is estimated based on areas that were safe enough to survey. It does not include areas which were inaccessible due to insecurity.

Figure 4: The bulk of the poor live in Ethiopia and Kenya

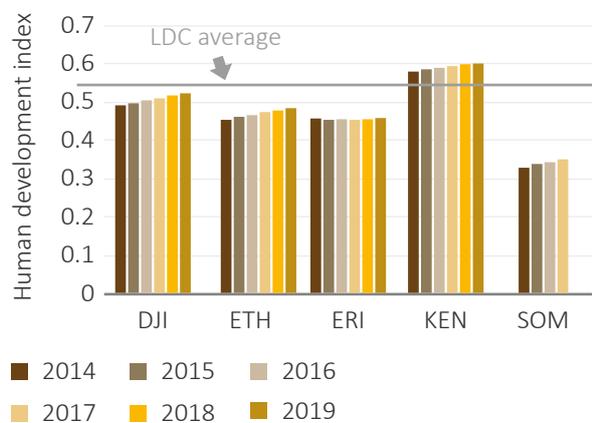


Source: World Bank staff calculations based on the latest survey available (2017 for Djibouti, 2015 for Kenya, 2015/16 for Ethiopia, and 2017/18 for Somalia).

⁹ This should not be confused with the primary school completion rate. Given the prevalence of late school enrolment and high repetition rates, a substantial share of 15-24-year-olds are still in primary school.

Figure 5: Human development improved

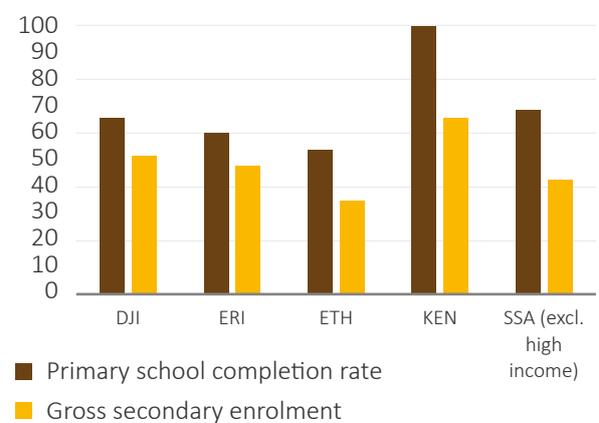
(Human Development Index, 2014-2019)



Source: UNDP, 2020.

Figure 6: But education outcomes remain weak (ex. Kenya)

(Primary completion rate and gross secondary enrolment)



Source: WDI, 2020. KNBS, 2018.

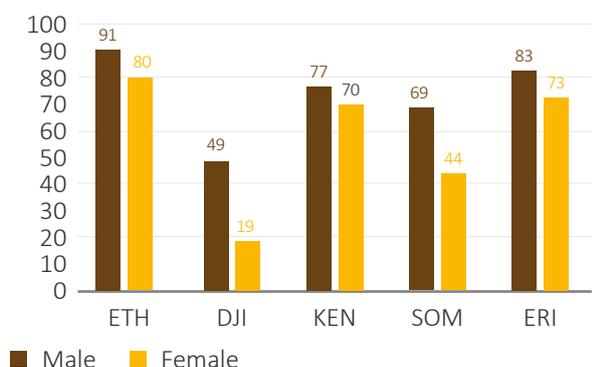
Employment characterized by self-employment and own-account agriculture, with substantial inequities in participation

Labor market outcomes differ across countries but remain relatively poor, especially for youth and women. In countries where the population is predominantly rural (Ethiopia, Eritrea, and Kenya), labor force participation rates are high (Figure 7). High labor force participation is an empirical regularity in largely agrarian low or lower middle-income countries, reflecting the prevalence of unpaid family labor and the need to work, given the lack of robust social assistance

systems, rather than strong labor demand. In Djibouti and Somalia, labor force participation is low, mainly driven by social norms regarding the labor market participation of women and, in Djibouti, a pattern of job-poor growth centered around the port. Youths' participation in the labor market is low in Djibouti, Kenya, and Somalia (Figure 8). For Djibouti and Kenya though, this is partly explained by the high share of young people who are in school.

Figure 7: Labor force participation is high except for Djibouti and Somalia

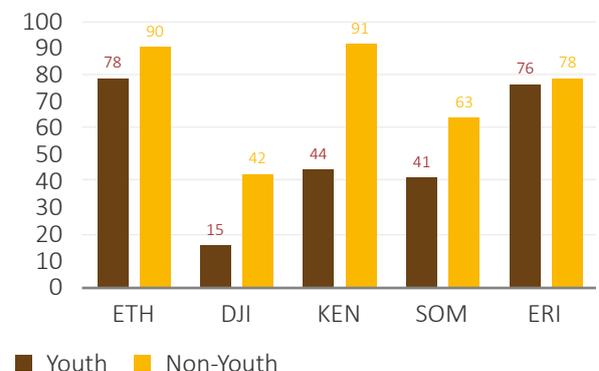
(Labor force participation rate, %)



Source: WDI, 2020. KNBS, 2018.

Figure 8: Youth are generally less likely to participate in the labor force

(Labor force participation rate, %)



Note: Youth defined as people between 15-24 years of age.

Source: WDI, 2020. KNBS, 2018.

A considerable share of youth across the HoA are Not in Employment, Education, or Training (NEET).

The share of young people who are NEET captures the extent to which youth are not substantially engaged in productive activity or activity that can increase their productivity in the future (e.g. education), which represents a waste of human resources. As a result, NEET is often considered a measure of exclusion from productive activities. Around half (49 percent) of youth in Djibouti, 32 percent in Somalia, 13 percent in Kenya and 10 percent in Ethiopia are NEET (Figure 9). Young women are particularly at risk of being NEET. Open unemployment is relatively low in the HoA (except for Djibouti). As with participation rates, however, this does not reflect a strong labor market, but rather the rural nature of most countries in the HoA and the need for people to work in the absence of formal social assistance systems. Unemployment is significantly higher in urban areas, especially among youth: 17

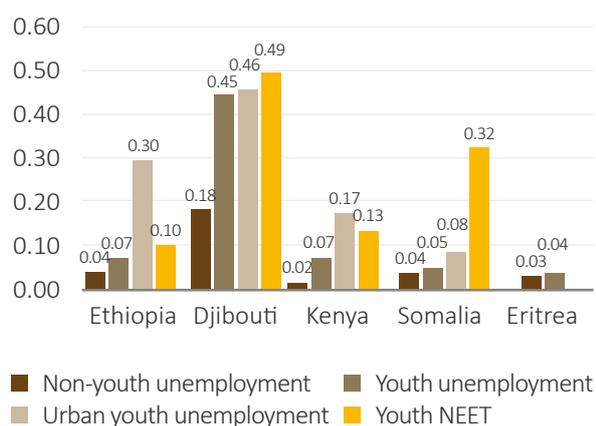
percent in Kenya, 30 percent in Ethiopia, and 46 percent in Djibouti. Speeding the school-to-work transition is a legitimate policy concern in these countries, but should be placed in the context of young urban workers accounting for only a small share of the labor force (two percent and seven percent of the labor force in Ethiopia and Kenya).

Structural transformation is incipient - for most workers in the Horn, a job still comes down to self-employment or work in household activities.

Self-employment and unpaid family work dominate employment in Ethiopia, Kenya, Somalia, and Eritrea, while Djibouti has higher rates of wage-employment (Figure 10). Women are far more likely to be engaged in unpaid family work than men and are underrepresented in wage-employment, though the pattern is more equitable for the younger generations (Figure 11). The incidence of wage employment is closely related to the sectoral composition of employment. In Ethiopia, where agriculture accounts for the bulk of employment, wage-employment is particularly rare (Figure 12). In countries with a larger employment share in services, wage-employment is more common (Djibouti, Kenya, Somalia), though even in the services sector self-employment tends to be at least as important as wage-employment. There are few differences in the sector of employment between youth and older adults, but youth are much more likely to work as unpaid family labor. As a result of it being at only an early stage, accelerating the region's economic transformation has the potential to generate large income gains. Even in Kenya, where structural transformation and industrialization have progressed the most, cross-sectoral earnings differentials remain large: the average earnings of self-employed workers in the informal and modern sectors are 2.1 and 4.0 times those of self-employed agricultural workers.

Figure 9: Youth NEET and unemployment are substantial across the HoA

(Share of youth 15-29 Not in Employment, Education or Training or unemployed)

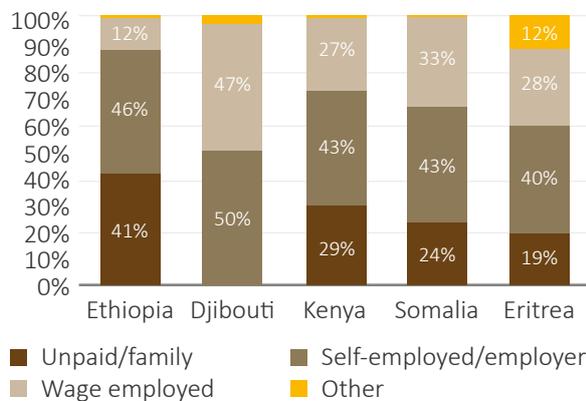


Note: Youth defined as people between 15-24 years of age.

Source: WB staff calculations on latest household surveys.

Figure 10: Self-employment and unpaid work account for the bulk of employment in the HoA

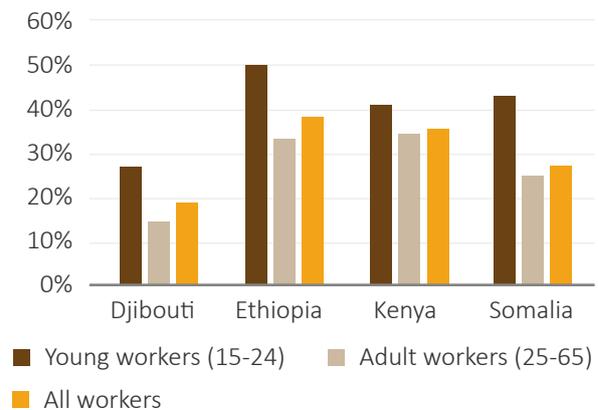
(Share of employment type in overall employment)



Source: UNDP, 2019.

Figure 11: Women are under-represented in wage employment

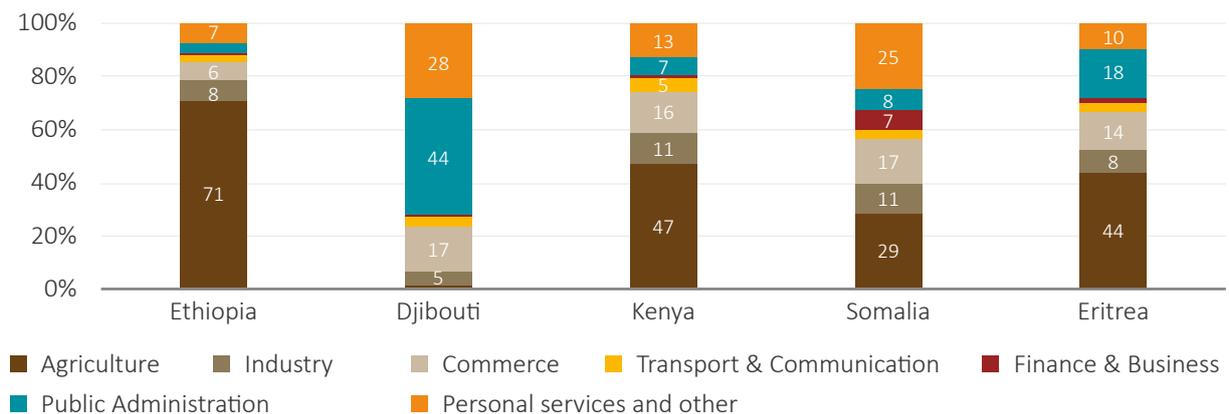
(Share of women in total wage employment, %)



Source: WDI, 2020. KNBS, 2018.

Figure 12: Agriculture and services account for the bulk of employment

(Sectoral distribution of employment)



Source: UNDP, 2019.

Rapid population growth

The employment challenge in the HoA is compounded by its rapidly growing population.

The working-age population in the HoA is projected to grow from 107 million in 2020 to 143 million by 2030, leading to a surge in demand for jobs and economic opportunities. A rapidly growing working age population can be a boon for economic growth through the “demographic dividend” when working age adults are economically productive and the

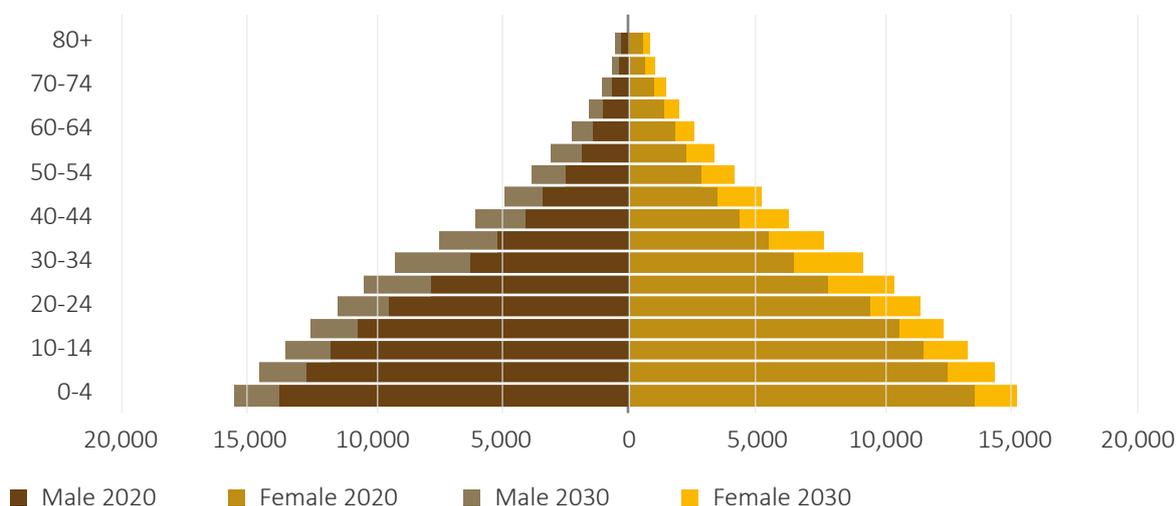
average number of dependents supported by their incomes falls sharply. However, this is not the case in the HoA because fertility rates and dependency ratios remain high and are declining at only a moderate pace. While the share of the working-age population is projected to increase modestly from 57 percent in 2020 to 60 percent by 2030, each successive age cohort will still remain bigger than the previous one, meaning that a HoA-wide demographic dividend is not around

the corner (Figure 13).¹⁰ Lowering fertility rates and strengthening the institutions necessary to realize the demographic dividend should be a priority

for the HoA,¹¹ along with generating productive employment opportunities for a burgeoning and relatively poorly educated labor force.

Figure 13: The demographic transition is still incipient in the HoA

(Population pyramid of the HoA, 2020 and 2030)



Source: WPP, 2019. WB staff calculations.

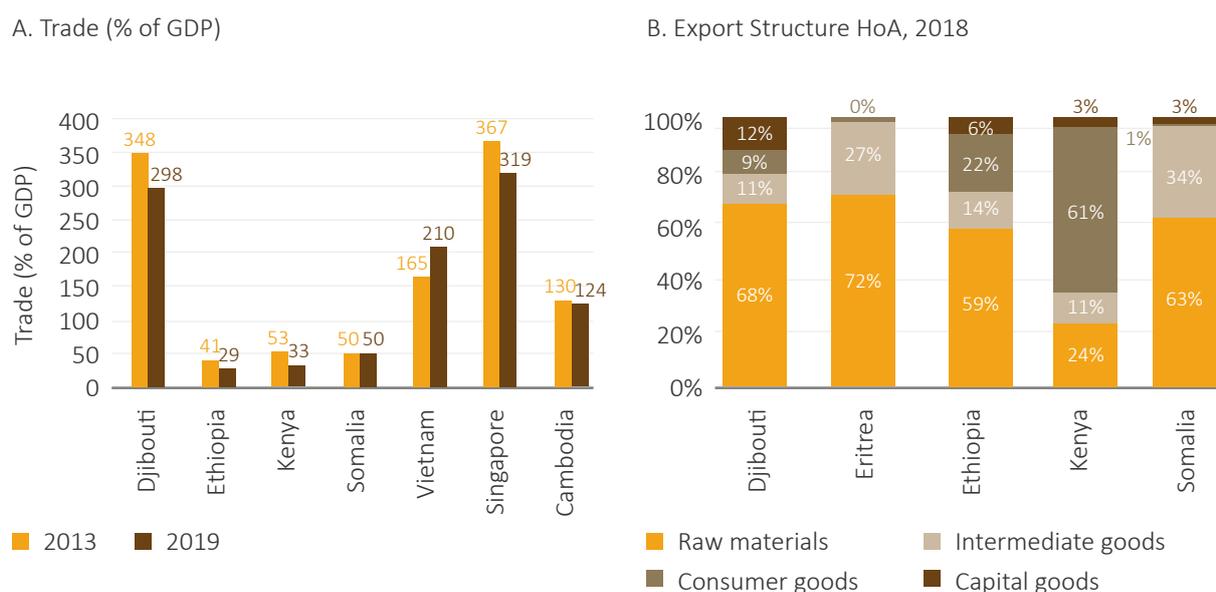
Weak trade performance

Trade is underperforming as a driver of growth, job creation and poverty reduction. The ratio of (recorded) trade to GDP decreased between 2013 and 2019 in Ethiopia, Kenya, and Djibouti, and for countries in the region trade plays a role in the economy considerably below what would be expected based on their economic size and location. In general, HoA countries export agricultural products to the global economy and primarily import manufactures. Official statistics suggest that (except for Somalia) there is little intra-HoA trade. For recorded intra-HoA trade,

manufactured exports are typically more important than agricultural exports. For both Ethiopia and Kenya, the share of manufactures in exports to HoA countries is almost double that in trade with the rest of the world. Almost all of Kenya's exports to the region are industrial products. The limited data suggest that Ethiopia is the major market in the region for HoA countries' exports of manufactures and the main exporter of agricultural products to the region. Somalia, the main import market for intra-HoA trade, primarily purchases vegetable products and processed food from the region.

¹⁰ A common misperception is that a large and growing youth population itself indicates a coming demographic dividend. It does not. The first step is a transition from high to low birth and death rates (Population Reference Bureau, 2012). Associated development impacts are strongest when this happens quickly, and the age structure shifts abruptly. In the HoA, however, the demographic transition is taking place more slowly.

¹¹ Research shows that the demographic transition will not generate a demographic dividend if quality institutions are not in place. These institutions include basic health care and schooling, infrastructure, rule of law and efficiency of the bureaucracy, etc. (Lee, Lee and Mason, 2006; Bloom, Canning and Sevilla, 2003).

Figure 14: Recorded Trade-to-GDP Ratios and Export Structures in the HoA

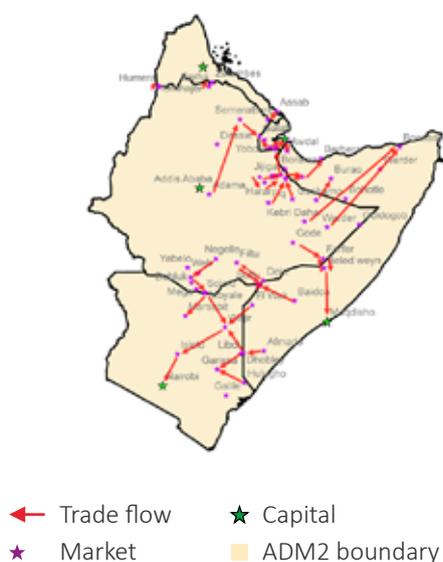
Source: staff calculations using data from United Nations Comtrade Database.

Unrecorded cross-border trade is an important phenomenon in the borderland regions of the Horn of Africa. Beyond trade that is recorded at the border by Customs Authorities, typically undertaken by formal and larger enterprises, there is a vast amount of cross-border trade undertaken by small-scale traders and micro-enterprises that is not systematically recorded.¹² Such trade supports as many as 17 million people along a variety of different value chains, including crop farmers, brokers, crop traders, livestock-keepers, fodder suppliers, ranch owners, itinerant traders, large livestock traders and transporters. Unrecorded cross-border trade may be as much as 20 times greater than officially recorded intra-regional trade in the Horn.¹³ Yet, there is considerable potential to increase regional trade including in livestock,

both within the region and with third countries. For example, Ethiopia has the largest cattle inventory in Africa and the 5th largest globally. Kenya and Somalia also have considerable herds of cattle and Somalia is home to the world's largest camel population. Map 1 provides a snapshot of the main border crossings and documented trade routes. Since there is no systematically collected information on cross-border trade and the conditions at border towns, analysis must currently be based on the collection of available but *ad hoc* studies. Investments in data collection are therefore essential. However, surveys at the border and novel techniques such as analysis of satellite imagery and cell phone data records may provide critical information by which to better understand the nature of cross-border trade (see Box 1).

¹² In the existing literature, many sources refer to this as "informal cross-border trade (ICBT)". However, this often carries a negative and unwarranted connotation as "informal" can be easily confused with "illegal". It also inaccurately reflects the reality of trade flows on the ground, as traders may indistinctly use both formal and informal crossing channels depending on a variety of factors, such as the nature of the goods, the value of their consignment, the length of the queue at the border, or the mood of the individual official on duty. The preferred terminology here is "unrecorded trade" as this commerce is either missed or under-represented in official (customs) collected data at the border.

¹³ Official data on cross-border trade is only available for Ethiopia and Kenya. These suggest that intra-HoA trade amounts to just under one percent of total trade. Taking currently unrecorded cross-border trade into account gives a very different perspective on the importance of regional trade in the HoA.

Map 1: Commodities and livestock trade routes in the HOA

Source: Brenton & Edjigu (2021).

Trade, including the high volume of unrecorded trade, is affected by macroeconomic and trade policies, and differences in their implementation, amongst the HoA countries.

Exchange rate arrangements differ widely across Djibouti (currency board), Eritrea (fixed peg), Ethiopia (soft peg), Kenya (managed float) and Somalia (free floating, but with a high degree of de facto dollarization).¹⁴ There are wide disparities in tariff rates and customs duties, and in the extent to which they are enforced. The general lack of systematic regulatory enforcement in Somalia, in particular, has led to the country acting as an entrepôt for the importation of goods into surrounding countries. The interplay between lax regulations and the importance of small-scale trade in supporting livelihoods fuels perceptions that a lot of trade is illicit (cf. footnote 12). The real challenge,

however, is to enhance state capacity in ways which enable trade to flourish, including by clarifying, harmonizing and consistently applying the rules affecting how goods and services flow across the borders in the region. Further, convergence in macroeconomic policies in the region over time, especially reducing exchange rate rigidities which may distort incentives and lead to deadweight losses, would boost gains from trade.

Cross-border trade in the Horn plays an important role in food security, improvements in smallholder income and poverty reduction.

Results from a survey of 200 traders at two border crossings (between Ethiopia and Somalia and between Ethiopia and Kenya) show that cross-border trading activities provide the main source of income for 78% of the traders at the Kenya border and 98% of those at the Somalia border. Previous studies have found that cross-border livestock trade enables herders to provide for their children's education, housing and other basic needs and also increases the incomes of traders, trekkers, fodder producers, brokers and other services, including veterinary services, hotels and restaurants among others.¹⁵ Cross border trade enhances food security through the movement of grain and other food items from surplus areas to deficit areas and by increasing the price incentives to production in those areas where efficiency and yields are highest.¹⁶ Income from cross border trade can also be an important source of saving and capital to startup new businesses or strengthen livelihood activities which can provide additional sources of income, employment and security for the household and a more diversified local economy.

¹⁴ Source (except for Eritrea): IMF Annual Report on Exchange Arrangements and Exchange Restrictions (2019).

¹⁵ Tesfaye, A. and N Amaha (2018) 'A Review on Cross-Border Livestock Trade Across Dry Land Borders of Ethiopia: The Trends and Implications', *Journal of Scientific and Innovative Research* 7(2): 36-42

¹⁶ There is some evidence from Ethiopia that higher crop prices are associated with reductions in child stunting, with long-term development implications in terms of attainment at school and productivity in the workplace. (Brenton, P and M. Nyawo (2019). Food Prices, Access to Markets and Child Undernutrition in Ethiopia. Policy Research Working Paper 8823, World Bank, Washington, DC)

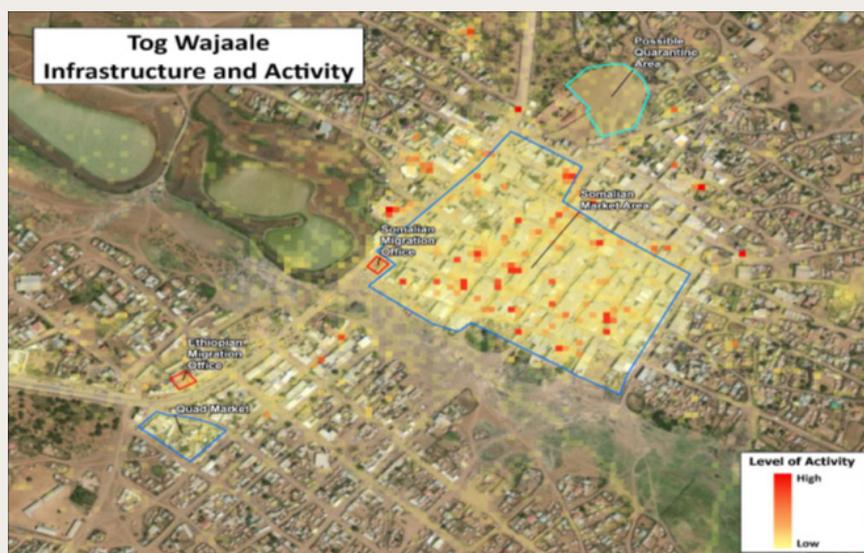
Box 1: Monitoring border infrastructure and trade flows through satellite imagery and anonymized cell phone records

A pilot analysis at two border crossings between Ethiopia and Somalia shows how, in the absence of systematically collected data on trade and trade-related infrastructure, satellite imagery and cell phone data can be used to identify the size and quality of relevant structures in border towns and monitor trade flows. The analysis can identify market locations, market size, the total number of stalls (uncovered and covered), the extent of available lighting, the total number of market buildings, WASH facilities (well, reservoir, water tower, or water tank) and functionality and key roads (including type, maintenance status and flood risk). The structural information can be complemented by anonymized cell phone data to analyze foot traffic around markets and border crossings. This can identify market-site activity, the change in volume of market participants between different periods, routes traveled by traders, the volume of cross-border traffic, changes in trade over time based on cell phone locations, pings, and unique travel paths. Traders are identified as those who were within or around the market while the

market was open, typically spent most of the day at the market, and spent multiple days in a row at the market.

Figure 15 provides an example of the application of this approach to Tog Wajaale. This is a key border crossing between Somalia and Ethiopia that appears to have been fully open and functioning during the 2019/2020 period, based on human movement analysis and satellite imagery. This is consistent with reporting by IOM, which monitors 14 border crossings between Ethiopia and Somalia, that all but two (Tog Wajaale and Dolo Ado) are designated as “closed for entry and exit” as of 2020/2021. The human movement analysis from cell phone records suggests that between 2019 and 2020, travel through the Tog Wajaale border crossing increased by 29%, and over half the people who visited the Jijiga markets made multiple (2+) border crossing trips through Tog Wajaale. Hence, it appears that with border closures elsewhere, at least a portion of the trade through those routes was re-directed through Tog Wajaale.

Figure 15: Infrastructure and activity at Tog Wajaale border point



Source: IPSOS, 2021.

Tog Wajaale is a split city, with some of the urban area lying in Ethiopia and some in Somalia. Analysis of anonymized cell phone data shows that visitors to the Somali side of Tog Wajaale tend to cluster and spend most of their time in the main market area. This commercial market area may also be a key draw to this town (for purchase/sale of goods beyond cattle as well). Previous studies have shown that Tog Wajaale is a key node for cattle trade, with many cattle traded in its market originating from the Oromia region of Ethiopia, and that the construction of quarantine stations has facilitated such trade. The cell phone data point to a potential quarantine area identified through imagery analysis, confirming that cattle trade infrastructure is important in attracting additional flows.

In contrast, the border between Ethiopia and Somalia at Ferfer-Beledweyne shows much less cross-border activity. Ferfer is a small town, with a bridge across a dry riverbed connecting it to a cluster of buildings. This bridge appears to have likely border crossing infrastructure on either side (“likely” since there is a lack of other reporting to cross-verify this). While the bridge is intact, imagery analysis (Figure 16) reveals that there is noticeable damage – enough to inhibit the passage of heavy commercial vehicles. On the Somalia side, the analysis identified significant road damage that likely

occurred during Al Shabaab’s control and ultimate ousting from the area between 2006 and 2011. This damage may act as a security countermeasure in a climate of persistent insecurity with occasional clashes between rival clan militias along the border. As a result of the damage, the road is effectively a single lane and conditions are severe enough to prevent a consistent flow of travel, especially of vehicles transporting goods.

Nevertheless, satellite imagery analysis identifies what appears to be likely informal trading of cattle and livestock along the riverbank. Clearly defined man-made watering holes are apparent in the riverbed as well as foot paths from one bank to another and goats and cattle are visible gathering around a man-made watering hole .75 km south of the Ferfer bridge, with what appear to be livestock vehicles close by. Human mobility data volume is very low for this area, but it does demonstrate limited activity taking place across the bridge and within surrounding areas, with a slight uptick in 2020. This is consistent with the imagery findings, that demonstrate difficulty to transport a heavy flow of goods over the bridge, but a low level of ongoing trade taking place around the dry riverbed. In sum, this crossing is currently not along a primary corridor for flow of goods and trade, though there does appear to be informal livestock trade.

Figure 16: Little infrastructure and activity at Ferfer border point



Source: IPSOS, 2021.

Hence, this pilot approach has shown how analysis of satellite imagery and cell phone records can help improve understanding of where important cross-border markets are situated, provide an indicator of trade volume and changes in trade

over time and information on the type and extent of market related infrastructure. Looking forward, if some of the processes can be automated then the approach could be useful for a wide area assessment of market locations and catchment areas.

The livestock value chain is one of the most important in the Horn of Africa and has developed into a complex structure involving a wide range of stakeholders. These include producers (herders), brokers, feed and water suppliers, traders, transporters/trekkers, processors, exporters and consumers. The general value chain for livestock starts with the collection of animals from farm gates moving on to local primary markets (collection markets), and then to secondary markets (regrouping markets) where livestock are regrouped and sorted into different classes based on appearance, size, color and conditions and then on to terminal markets and final buyers. If a primary market is near a border, cross-border traders purchase animals from farmers for onward sale in a terminal market, which may be in an overseas country. Secondary markets are relatively larger than primary markets, usually they are the main trading center in a district. The main actors in these markets include pastoralists, local butchers, middlemen and export traders. Pastoralists may directly sell their animals at secondary markets or purchase breeding stock. Brokers purchase animals

for reselling to the butchers. Exporters purchase animals and further fatten to export to overseas markets. However, while this summarizes the broad structure of the value chain, processes and interactions between actors in the value chain are casual and change to suit the nature of the border.

A key feature of the livestock value chain in the region is the importance of clan-based and trust-based trading. Cross-border trade in the Horn of Africa is sustained by high levels of social capital among key market actors. Livestock sales are transacted mainly based on ethnic and familial ties reflecting the uncertain business environment, absence of strong institutional or judicial intermediation and formal systems of credit enforcement, weak infrastructure, limited market support services and prevalent insecurity in pastoral areas. In the absence of ethnic ties, a trust-based network of pastoralists, intermediates, traders and final buyers is important. Though clan-based and trust-based marketing facilitate trade, they can also distort the livestock market if the result is a clan-controlled monopoly.

SECTION 3

The economic geography of the HoA

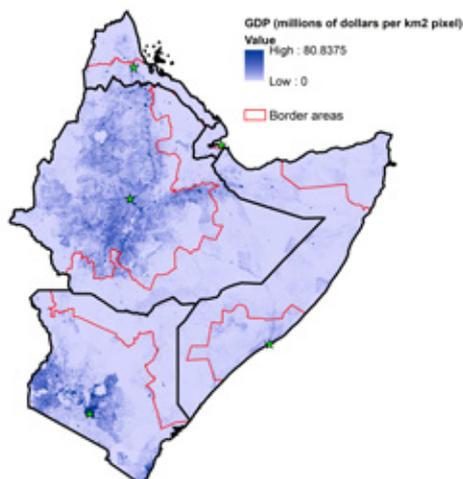
3.1 Density: Spatial Distribution of Economic Activity and Living Standards

Economic activity in the HoA is spatially concentrated. In countries with a substantial agricultural base (Ethiopia, Kenya and, to a lesser extent, Eritrea), economic activity tends to be concentrated in places with better agricultural potential (Figure 17 and Figure 18): The central highlands of Ethiopia crossing north into Eritrea towards Asmara and crossing east into Somalia towards Hargeisa, and the area around Nairobi

and stretching westwards towards Kisumu and the shores of Lake Victoria. It is also in these agricultural breadbaskets that the countries' biggest cities are located. In Djibouti and Somalia, both arid and hot countries, economic activity is concentrated in places with a comparative advantage for trade through seaports: Djibouti city in Djibouti and Mogadishu (and to a lesser extent Kismayo) in Somalia.

Figure 17: Economic production in the HoA is highly concentrated

(Estimate of GDP per squared kilometer, 2006)

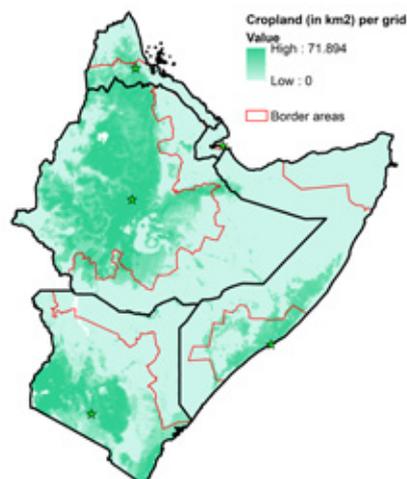


Sources: Ghosh et al. (2010).

Population density and economic density largely overlap. In Ethiopia, close to 90 percent of the population live in the highlands, despite the highlands accounting for less than half of Ethiopia's

Figure 18: And largely reflects cropland availability

(Cropland area in km² per 5 arc minutes grid cell)



Sources: HYDE3.2.

territory (World Bank, 2019). In Kenya, 20 percent of counties – which are densely populated and concentrated spatially in the southwestern part of the country – account for over 40 percent of

population¹⁷ while in Eritrea, it is estimated that the top 10 most populated districts, which are located mostly in the northeast, in and around the country's capital, account for around 40 percent of population.¹⁸ In Somalia, high densities of population are observed in Mogadishu, Kismayo, Baidoa and Hargeysa and along major road networks that are connected to these major cities.

The vast and sparsely populated border areas are a salient feature of the HoA. The HoA border areas,¹⁹ the area within the red lines in Figure 17, account for over 44 percent of the combined territory of the five countries but make up only 13 percent of total population and 9 percent of economic output. A large swath of the borderlands is classified pastoral/grazing land (see Figure 18). A large majority of people in the borderlands engage in pastoralism, agropastoralism and trade. The border areas are also where many of the Horn's challenges come together: a legacy of economic, social, and political marginalization; poor service delivery and infrastructure; conflict, violence, and forced displacement; and environmental degradation, all spilling across national boundaries. While there are differences across countries, the reach of the state in these areas is generally weak, and informal and illicit activities flourish. Yet these border areas are bound to play a key role if trade and cooperation across the HoA is to increase and deepen, highlighting their importance in the regional integration agenda.

The spatial distribution of economic density is reflected in spatial differences in living standards.

Using the US\$1.9 a day poverty line, poverty rates are generally lower in the economically dense areas than in the economically-lagging ones (Figure 19). There are several ways to classify economically dense (or "leading") areas vs. lagging areas. Poverty rates in rural areas of the HoA (39 percent) are close to three times higher than in urban areas (15 percent), while poverty in the border areas is 12 percentage points higher than poverty in the non-border or core areas. Given the sparsely populated nature of the border areas, the density of poverty is not situated in the border areas; most of the poor live in the wealthier (and hence more populated) parts of these countries (Figure 20). Other social indicators show large spatial disparities as well. The share of 7-14-year-olds attending school, the share of youth aged 15-24 that have completed primary education, and the share of youth 15-20 attending secondary education are substantially lower in rural areas and in border areas for all three countries, as opposed to urban areas and core areas, respectively (Figure 21 and Figure 22). Indicators of access to health care and health outcomes also tend to be substantially worse in the economically lagging areas, translating into multi-dimensional poverty rates that are substantially higher in the border areas than in the economically dense areas.

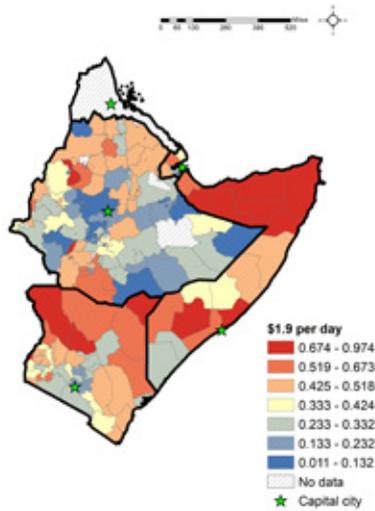
¹⁷ Out of 47 counties, the most populated 10 accounted for 41 percent of the population in the 2019 population census.

¹⁸ The World Bank's estimates based on population data from WorldPop and GADM ADM2 shapefile.

¹⁹ Border areas are defined here as second-order administrative divisions (ADM2) that share a land border with another country, with the exception of the regions of Tigray and Djibouti which have distinctly different demographic and environmental characteristics and are thus not characterized as border areas.

Figure 19: Poverty rates tend to be higher in the sparsely populated border areas

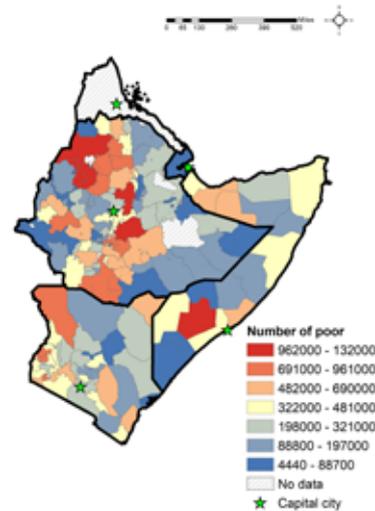
(Share of population below the US\$1.9 poverty line)



Source: World Bank staff calculations using the latest household survey available in each country.

Figure 20: Though most of the poor live in the economically-dense areas

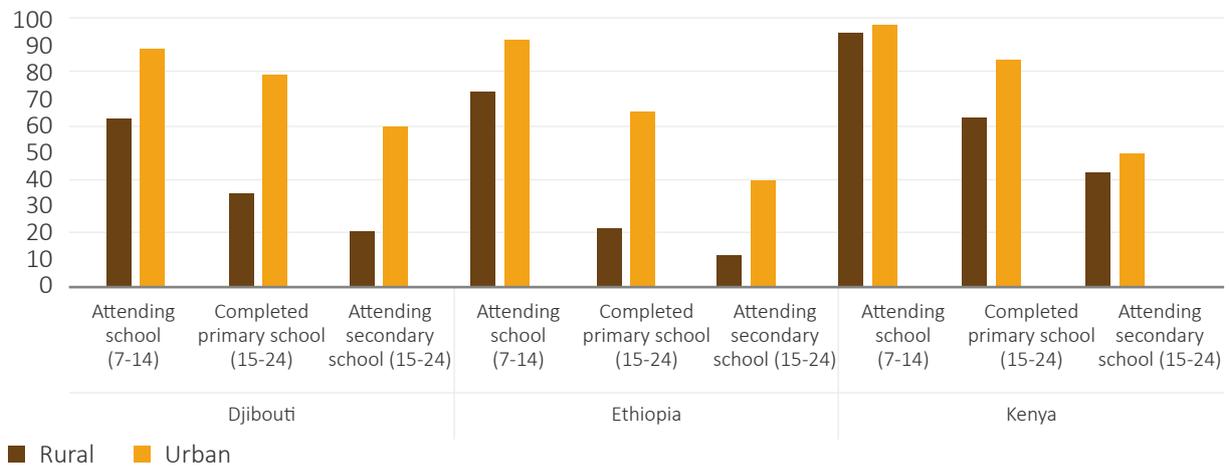
(Number of people below the US\$1.9 poverty line)



Source: World Bank staff calculations using the latest household survey available in each country.

Figure 21: Education outcomes lag in rural areas...

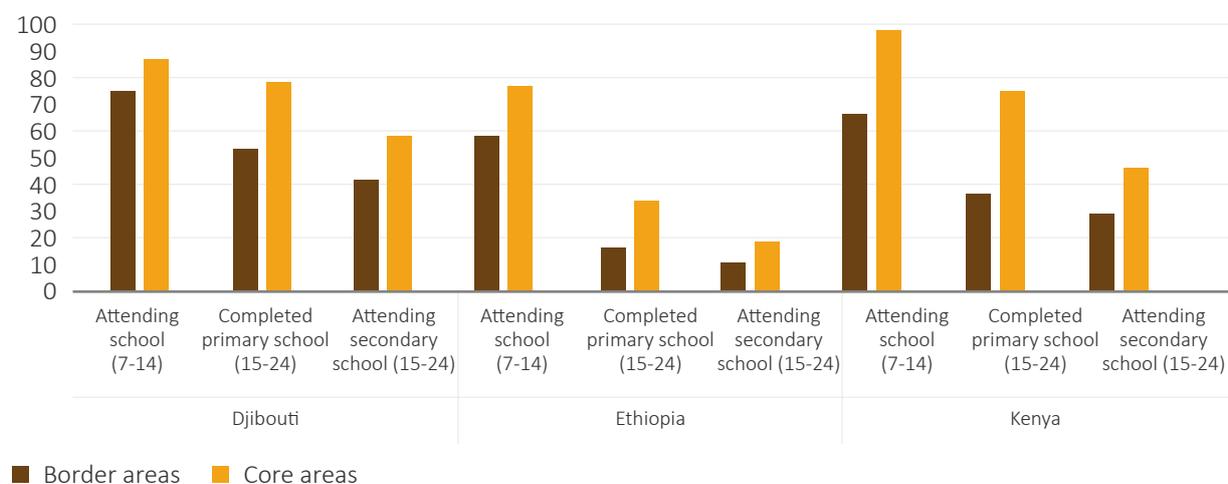
(Selected education indicators, Djibouti, Ethiopia, Kenya)



Source: GMD, 2020; World Bank staff calculations.

Figure 22: ...and also in the border areas

(Selected education indicators, Djibouti, Ethiopia, Kenya)



Source: GMD, 2020; World Bank staff calculations.

As countries develop from a low base, economic concentration tends to further increase, widening the economic gap between leading and lagging areas. The Horn has also experienced this pattern, though in a more nuanced way. In the absence of regional output data, proxy indicators suggest that economic activity in the Horn has grown fastest for places in the middle of the baseline economic activity distribution. Night-time lights, a commonly used proxy for economic production, increased strongest in places that were in the middle of the nightlights distribution in 1992, while both unlit and highly lit places (roughly corresponding to rural areas and big cities, respectively) grew slower (Figure 23). The growth in built-up area, another proxy indicator for development, shows

the same pattern, with places that were “medium built-up” to begin with experiencing faster growth in built-up area compared to unbuilt and highly built-up places (Figure 24). Formally testing for *beta-convergence* shows that economic activity has diverged since the early 1990s, with more developed places growing faster.²⁰ Border areas have experienced the slowest growth, even after controlling for their lower levels of initial luminosity.²¹ The non-linear pattern in Figure 23 and Figure 24 was partly driven by faster growth in secondary cities than in large cities and towns (Box 2). Data from Kenya and Ethiopia suggest that the divergence in economic activity was nevertheless associated with modest spatial convergence in living standards.²²

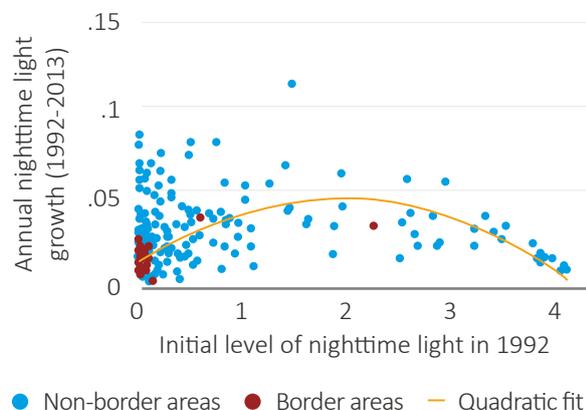
²⁰ Beta-convergence occurs when poor geographical units grow faster than richer geographical units. Divergence occurs when poor places grow slower than rich places. We estimate beta-convergence based on a regression of annual growth in NTL based on initial NTL. The coefficient on initial NTL is positive and statistically significant, indicating that places that were better lit in 1992 grew significantly faster. The same result is obtained when using built-up area instead of NTL.

²¹ The border dummy in the convergence regression is negative and statistically significant.

²² Kenya and Ethiopia are the only countries in the HoA with at least 2 comparable household poverty surveys since the early 2000s. In both countries, the share of total inequality in household consumption that can be explained by welfare gaps between regions decreased between 2005 and 2015, pointing towards narrowing spatial welfare gaps during this period.

Figure 23: Luminosity grew fastest in places that were medium lit in 1992

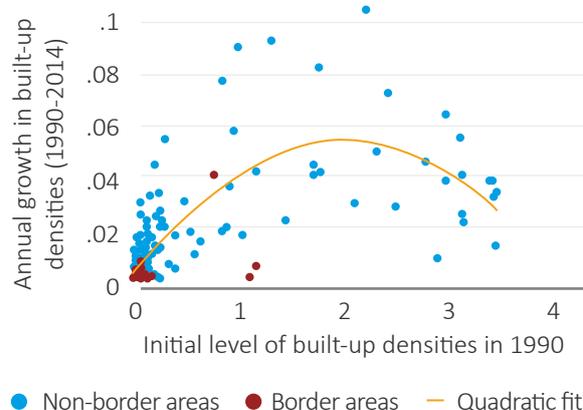
(Growth in night-time lights between 1992 and 2013 by intensity of night-time lights in 1992)



Source: World Bank staff calculations on DMSP nighttime light data.

Figure 24: Growth in built-up area was higher in places that were more built-up to begin with

(Growth in built-up area between 1990 and 2014 by density of built-up area in 1990)



Source: World Bank staff calculations on GHS built-up dataset.

Box 2: Urbanization, but not metropolization

Most countries in the HoA are urbanizing rapidly from a low base. The estimated urban population in the HoA increased from 20 million in 2000 to 50 million in 2020 and is expected to increase to 90 million by 2035. In parallel, the urbanization rate is projected to increase to 35 percent, compared to 26 percent in 2020.²³ Though comparable

data is hard to come by, an analysis based on nighttime luminosity suggest that secondary cities have been growing faster than capitals and other large cities and, especially, towns and small cities, contributing to the observed non-linear association between initial levels of economic development and subsequent growth (Figure 25).

Figure 25: Growth in nighttime lights was faster in secondary cities and large cities than in smaller towns

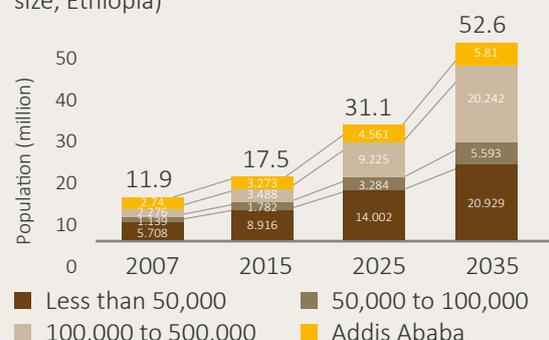
(Growth in night-time lights between 1992 and 2013 by city size)



Source: Source: World Bank staff calculations on GHS built-up dataset.

Figure 26: Towns and secondary cities will account for the bulk of Ethiopia’s urban population growth

(Projected increase in urban population by city size, Ethiopia)



Source: Schmidt et al., 2019.

²³ Figures based on World Urbanization Prospects (UN, 2018).

Projections for the HoA's biggest economies suggest that, going forward, most of the urban population increase will take place in towns and secondary cities. In Ethiopia (Figure 26), the bulk of urban population growth will happen in small towns (less than 50,000 people) and secondary cities (100,000–500,000 people). Similar projections for Kenya show that most of the

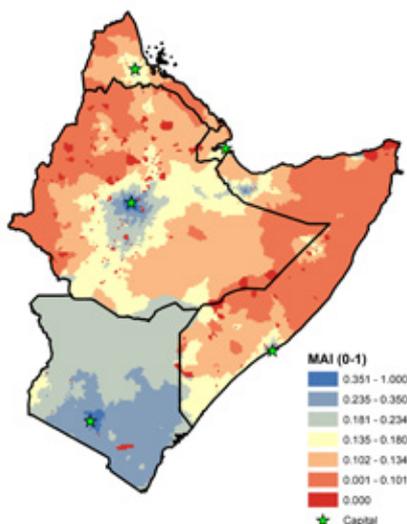
urban population growth will take place in cities of between 100,000 and 1 million people, while the urban share of Nairobi is projected to remain constant. These projections call for much-needed investments in infrastructure and public service provision in smaller cities and towns across the region, where infrastructure and service provision are currently lagging.

3.2 Distance: Access to markets and integration

The concentration of economic activity in certain favored places is a normal phenomenon. The extent to which other, less-favored, places benefit from the dense clustering of economic activity in the favored places depends on the economic distance that separates them.²⁴ In the HoA, economic density and economic distance are strongly inversely correlated (Figure 27): market access, an inverse proxy for economic distance, is high in and around economically

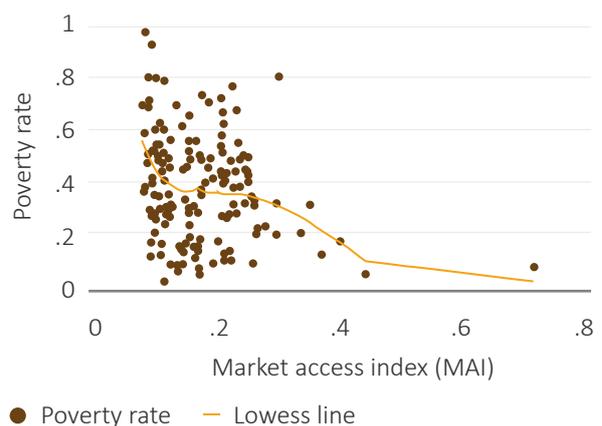
dense places, such as Addis Ababa, Nairobi and the southeastern part of Kenya, and the dense cross-border corridor between Jijiga (Ethiopia) and Hargeisa (Somalia). In contrast, market access is low, and economic distance high, in most of Somalia and Eritrea and in the peripheral lowlands of Ethiopia and Kenya (though even in Kenya's northeast market access, while low compared to the rest of Kenya, is still better than in most other countries).

Figure 27: Economic distance is high in the border areas and in most of Somalia and Eritrea



Sources: World Bank staff calculation based on OpenStreetMap and WorldPop (2015 population estimates).

Figure 28: Places in the HoA with high economic distance are poorer



Notes: Sample correlation amounts to -0.24 and the linear relationship is statistically significant at the 1% level and robust to outliers (such as Nairobi on the far right). The unit of analysis is the mixture of the first- and second-administrative areas at which household survey was representative.

Source: World Bank staff calculations on countries' latest poverty surveys.

²⁴ "Distance" here does not refer to physical distance, but to the ease or difficulty for goods, services, labor, and capital to move between the leading places and the other places. It measures how easily capital flows, labor moves, goods are transported, and services are delivered between two locations. Distance here is an economic concept, not just a physical one.

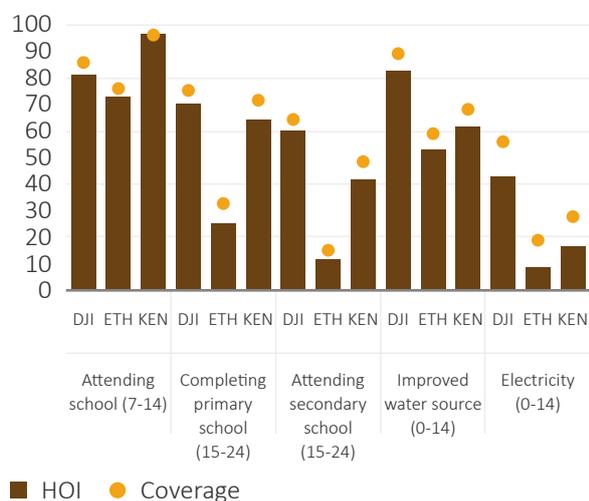
Economic distance is strongly correlated with poverty rates. The farther it is from density, the more likely an area is to be lagging because of its lack of integration in the economy of the leading areas. This is often reflected in poverty rates being higher in remote and poorly connected parts of a country. The HoA is no different: market access, an indicator of economic distance, is strongly correlated with poverty rates. Places with better market access have lower poverty rates and vice versa (Figure 28). Rural areas in the Horn that are better connected, as measured by the Rural Accessibility Index,²⁵ also achieve higher economic growth rates (proxied by changes in nighttime light) than places that are poorly connected.²⁶

Economic distance is not just a theoretical construct; in the Horn of Africa, it shapes access

to opportunities. Access to basic opportunities for children in the HoA is low and uneven, with substantial horizontal inequalities when it comes to completing primary school, attending secondary school, and having access to clean water and electricity (Figure 30 and Box 3). Significant shares of the inequity in access to key opportunities can be explained by location – that is, economic distance. Rural vs urban location is a major contributor to access to opportunities in the Horn, with children in rural areas, where economic distance is high, having far lower access to important opportunities relative to children in urban areas (Figure 29). Living in a lagging border area has a sometimes significant residual effect: living in a border area explains 37 percent of the inequity in attending primary school. Reducing economic distance is key to expanding opportunities in the HoA.

Figure 29: Significant gaps in coverage of basic opportunities

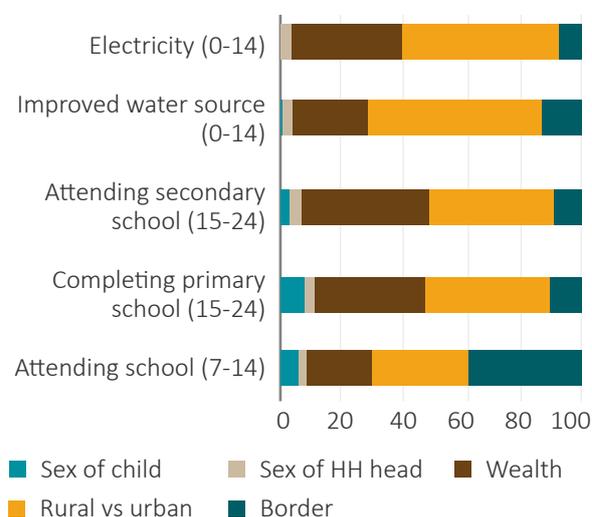
(Coverage rate and human opportunity index, Djibouti, Ethiopia, Kenya)



Sources: World Bank staff calculations on countries' latest poverty surveys.

Figure 30: Location and wealth shape access to opportunities in the HoA

(Contribution to inequity in access to a given opportunity, Djibouti, Ethiopia, Kenya)



Sources: World Bank staff calculations based on countries' latest poverty surveys.

²⁵ See Roberts, Peter; KC, Shyam; Rastogi, Cordula. 2006. Rural Access Index: A Key Development Indicator. Transport paper series; no. TP-10. World Bank, Washington, DC.
²⁶ See Bundervoet & Masaki (2021).

High economic distance in the border areas can be explained by long physical distances to the domestic centers of density and weak cross-border connectivity. Transport connectivity in the HoA can best be described as a collection of national spaces. Within a network analysis framework that takes account of road, rail, and air connections, within-country connectivity in the HoA is more than 15 times stronger than between-country connectivity. In the top 10 of most connected city-pairs in the Horn, only two straddle national borders: the Djibouti-Addis

and Djibouti-Dire Dawa connections, which are mainly driven by air and rail connectivity.²⁷ The lack of regional economic integration results in, and also results from, the lack of connectivity between the HoA's major cities. Despite domestic connectivity being a lot stronger than cross-country connectivity, domestic connectivity remains weak in Somalia and Eritrea. In Eritrea, the city of Assab is presently isolated on all possible fronts in the face of poor connections between Assab and the major centers in northern Eritrea, in spite of its potential importance as a port.

Box 3: The Human Opportunity Index

The Human Opportunity Index (HOI) is widely used to measure inequality of opportunity. The HOI captures both (i) the overall access to basic services, such as education, water and electricity (the coverage rate); and (ii) inequality in access (Barros, Ferreira et al. (2008)). If access to a basic service is perfectly equal, then the HOI is the same as the coverage rate. As access becomes more and more unequal, so the HOI becomes lower and lower.

The extent of inequality of opportunity is measured using the D-index (the dissimilarity index). This index calculates how much access to services varies by birth characteristics, such as socio-economic status of a households and the location of the household. A D-index of zero indicates perfect equality (no gaps in access to services across circumstance groups), whereas a D-index of one indicates perfect inequality

The central question behind the HOI is to what extent circumstances beyond one's control influence one's access to a set of important basic services. Simply put, the HOI takes the coverage

level of a basic service or "opportunity" (for example whether a child is enrolled in primary education) and combines this with the extent to which that opportunity is determined to be beyond the control of the child (for example being born in a rural rather than urban area or being a girl rather than a boy). Ideally, random circumstances should play no role in determining access to opportunities.

The D-index measures dissimilar access rates to a given basic opportunity for groups of children where groups are defined by circumstance characteristics (for example, area of residence, or gender) compared to the average access rate to the same service for the population as a whole. To formulate groups the sample is stratified into groups or "cells," so that all individuals in any given cell have the same combination of circumstances. The resulting subgroups are known in the literature as "types" (Barros, Ferreira et al. (2008)). These cells are then compared to one another. The difference in outcomes between cells can be attributed to inequality of opportunity, while the differences within cells can be considered the result of effort or luck.

²⁷ The Nairobi-Mombasa connection is the strongest link in the HoA.

The D-index summarizes all the gaps into a single measure by weighting them according to the population share in each circumstance group. The D-index generates a value between 0 and 1. In a society in which there is no inequality of access

the D-index is zero. If average access is denoted by \bar{p} , the specific access rate of group i is p_i , and the share of group i in the population is given by β_i then the D-index is:

$$D = \frac{1}{2\bar{p}} \sum_{i=1}^n \beta_i |p_i - \bar{p}|$$

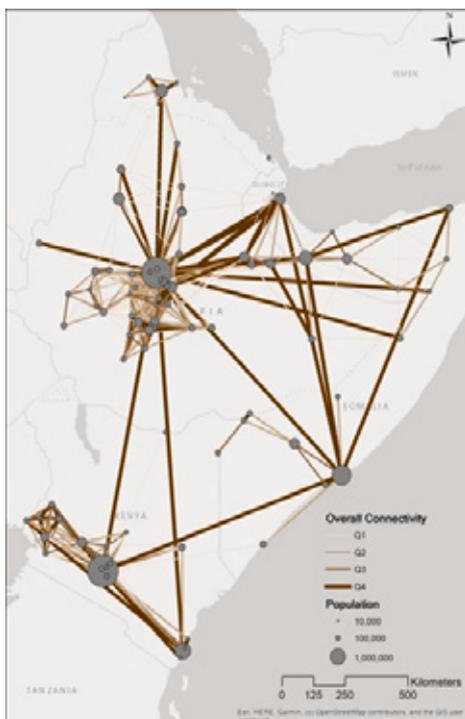
The HOI can then be calculated as:

$$HOI = \bar{p}(1 - D)$$

The measure is also decomposable so that the extent to which specific opportunity sets contribute to the dissimilarity can be assessed. This means that the contribution of different circumstances to overall inequality of opportunity can be determined.

Figure 31: Transport connectivity in the HoA

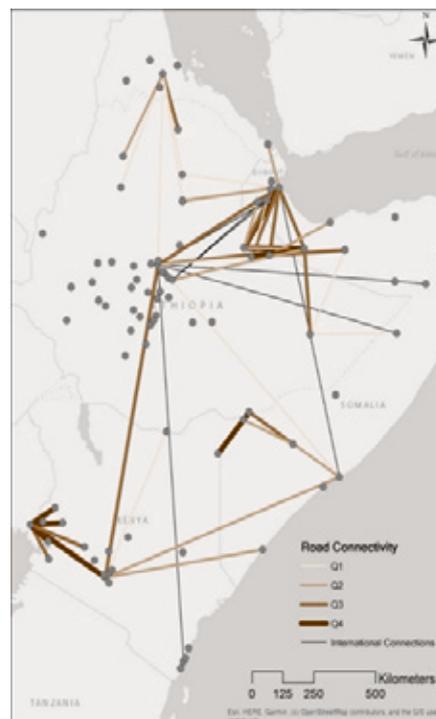
(Strength of connectivity based on road, rail, and air connections)



Source: Kunaka & Derudder (2021).

Figure 32: Road transport connectivity in the HoA

(Strength of connectivity based on road only)



Source: Kunaka & Derudder (2021).

Cross-border connectivity in the HoA is mostly driven by air, which is far too costly for most of the population. Focusing on road transport only (Figure 32), the Djibouti-Dire Dawa-Hargeisa triangle is the only part of the HoA where multiple cities are reasonably well connected across borders. In contrast, there are only minor connections between Djibouti and Eritrea, Ethiopia and Eritrea, Kenya and Somalia, and Kenya and Ethiopia. The low average connectivity between cities in Ethiopia and Kenya, the region's two

largest economies, requires attention. Beyond the flights between Addis Ababa in Ethiopia and Nairobi and Mombasa in Kenya, and the Addis-Nairobi road link via Moyale, there are essentially no viable connections between the countries, which share one single border post for an 861km-long border. The weakest connections in the HoA are mainly found in the borderlands between Ethiopia, Djibouti, and Eritrea and the borderlands between Ethiopia, Somalia, and Kenya, reflecting and reproducing patterns of peripheralization.

3.3 Division: Weak cross-border connectivity compounded by fragility and thick borders

Division refers to the restrictions on the flow of goods, capital, people, and ideas across space. Division can both be domestic and international. At the domestic level, nations can be internally divided across linguistic, ethnic, religious, or cultural lines. At the international level, divisions mainly arise from "thick" borders: the many restrictions some countries impose on the flow of goods, capital, people, and ideas with other countries. Thick borders limit trade and the flow of factors of production. Interstate conflict creates the thickest borders. While borders in the rich world have become increasingly thin, thereby facilitating trade and the movement of people and capital, borders in many poor countries remain thick.

The main sources of division in the Horn are related to weak transport infrastructure and connectivity, thick borders, and pervasive conflict and fragility. Domestic transport connectivity is weak in Eritrea and Somalia, leading to poorly integrated markets and high within-country price differentials even for basic commodities such as maize and sorghum. Poor road quality as well as lack of suitable vehicles increase the cost of trade and limit the exploitation of scale economies. For example,

damaged roads and overloaded trucks that are not specifically designed for carrying live animals, lead to stress and injury to animals, resulting in a rejection rate of up to 5% upon inspection at the point of export. In the HoA countries for which price data are available, a one percent increase in travel time between towns is associated with a nine percent increase in the difference in prices of homogenous agricultural products between towns.²⁸ If these towns are located on different sides of a border, price differentials increase by a further 12 percent, all else equal. This price effect is substantial given the undifferentiated nature of the products and the high food budget shares of households across the region. Cross-border price differences are highest between Djibouti and Somalia, and Djibouti and Ethiopia.

Cross-border economic integration is further constrained by the relative lack of border infrastructure. Kenya and Ethiopia have one border post for an 861-km-long border. Ethiopia and Somalia share a 1,600-km border, served by only 2 operational official border posts. In addition to the relative dearth of operational border crossings, border infrastructure is often poor. As shown in Figure 16, the border between Ethiopia

²⁸ Maize and sorghum.

and Somalia at Ferfer is characterized by a lack of infrastructure, with a visibly damaged road and waterholes dug in the dry riverbed to compensate for a lack of water infrastructure. Remote sensing analysis shows little activity at this border crossing (which, according to humanitarian monitoring reports, was not operational in 2020), which effectively limits the accessibility of Beledweyne, a fairly sizable city in Somalia's urban system,²⁹ with connections to Mogadishu and northern Somalia via Garowe covering large distances at limited speeds. In contrast, where borders are operational and some infrastructure has been built, trade has tended to flourish (such as along the Jijiga-Hargeisa corridor, where cross-border mobility increased by 29 percent between 2019 and 2020 and revenues for traders are higher than along other border posts).

In addition to poor cross-border connectivity and infrastructure, there is a lack of transparency and awareness of policies being applied at the borders. Information on the policy requirements to export and import are not readily available. This is reflected in reports of ad hoc application of border measures, including exports bans and export taxes on agricultural products and products such as hides and skins. For example, at the border town of Moyale in Ethiopia, in addition to a municipality tax, local officials collect fees at town markets when an animal is sold and an additional tax if the animal crosses the border to Kenya. A lack of understanding of cross-border trade by officials leads to the misperception that all small-scale trade is illicit, resulting in widespread threats of confiscation of products. In reality though, a large proportion of cross-border traders are undertaking the simplest of private sector activities in a hostile policy environment and are not seeking to evade legitimate taxation and regulation by authorities that are legally responsible for border management.

Challenges at the border appear to be more restrictive for women traders. A pilot survey

that interviewed 200 traders at two main border crossings, one between Ethiopia and Kenya and one between Ethiopia and Somalia, found that the exchange rate and access to foreign currency, corruption and security were problems at both sites. Access to finance, the availability of market information and the ability to find transport were also reported as key problems at the Ethiopia-Kenya border. In contrast, at the Ethiopia-Somalia border, taxes and their administration, trade permits and customs authorities were important challenges. For every issue that created challenges at the border, the proportion of female traders reporting it as an issue was larger than the proportion of male respondents.

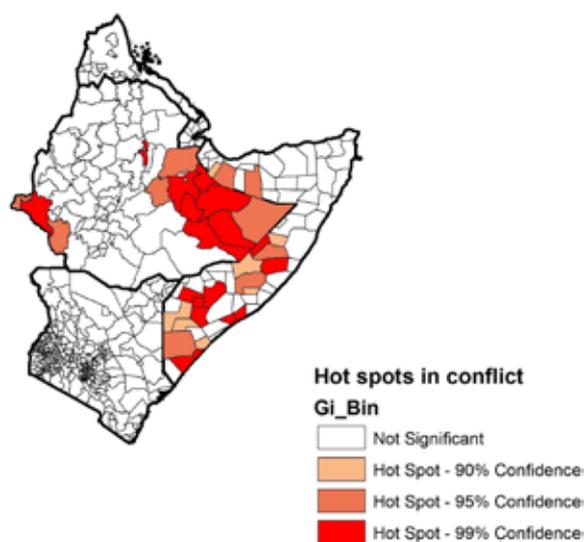
Social unrest, violence, and conflict, both domestic and interstate, have at times also posed formidable barriers to the flow of goods and people within countries in the Horn. While this has been most pervasive in Somalia, recent years have seen various episodes of unrest, political turmoil, and open armed conflict in Ethiopia, severely restricting the domestic flow of goods and factors of production. To illustrate the division caused by conflict, food price inflation amounted to more than 38 percent year-on-year in Ethiopia's Tigray region in December 2020, more than double the rate observed in the neighboring regions and the country as a whole, and disproportionately impacting low-income households.

Conflicts in the HoA have been spatially clustered in the border areas. The underlying drivers of conflict and fragility in the border areas are multi-faceted and complex, ranging from historical grievances about the political and economic marginalization of the periphery to tensions over scarce resources to opportunities for illicit enrichment. Statistical analysis of conflict events in the Horn shows that conflict is clustered in the lagging border areas (Figure 33) and has significant spillovers, with a high degree of probability that conflict in one

²⁹ With an estimated population of over 200,000, Beledweyne is the fifth biggest city in Somalia.

region, both within countries and between them, is related to the incidents of conflict in another (usually neighboring) region. Fragility is correlated with economic distance, with conflicts clustered in sparsely populated border areas with low market accessibility.³⁰ Pervasive fragility in the border areas has led to frequent and sometimes long-lasting closure of several border posts and trade routes, negatively affecting cross-border trade and, indeed, market access. The lack of a stable and regulated environment for cross-border trade has contributed to the growth of illicit activities, with the sustainability of these opportunities depending on the continuing marginalization and peripheral status of border areas. Addressing fragility in the border areas will require addressing the complex web of interests in lucrative activities in these areas, both by state and non-state actors.

Figure 33: Conflict is clustered in the border areas



Note: Hot spots of conflict based on ACLED conflict data. Hot spots identify statistically significant spatial clusters of high values of conflict (as measured by total fatalities between 2000 and 2019), based on the Getis-Ord G_i^* statistic. Source: ACLED, 2000-2019.

Facilitating trade can be a powerful force for stability in border areas and the Horn at large by promoting development and increasing the opportunity cost of conflict.³¹ Trade provides new opportunities and creates jobs related to exports which can offer alternative sources of income for those otherwise drawn towards violence and armed groups. However, trade can also have negative impacts on jobs in sectors that are subject to greater competition from imports, and without support the people who bear these losses may turn to violence to sustain their income. Trade can also affect conflict when it increases the value of economic resources, usually commodities such as minerals and precious stones and timber, but also livestock and hence land, and the incentives to fight over their control. Finally, taxation of trade may be an important source of revenue for both the government and armed organizations and changes in the structure and value of trade may affect the ability to sustain conflict.

In general, the evidence across a range of countries suggests that increasing trade with neighboring countries reduces both the duration and the intensity of conflict. There is also a lower risk of conflict when both countries are members of the same regional trade agreement. Reducing barriers to cross-border trade has been found to promote economic activity in border regions, which is sorely needed in the Horn's lagging borderlands.³² Cross-border trade typically has strong backward and forward linkages to local producers and distribution markets, creating job opportunities for vulnerable youth in production, transport and logistics in border areas. Moreover, facilitating local cross-border trade through trade policy reforms and trade facilitation can be an important means of addressing food security issues faced by poor populations, which can often be a factor behind increasing tensions.

³⁰ This bivariate correlation however disappears if country effects are controlled for. In other words, the incidence of conflict is more related to country-wide influences and legacies than to differences in economic distance within countries.

³¹ The following draws heavily from Cali, M (2015) Trading Away from Conflict: Using Trade to Increase Resilience in Fragile States, World Bank, Washington <https://www.worldbank.org/content/dam/Worldbank/document/Trade/Trading%20Away%20from%20Conflict.pdf>

³² See Brulhart, M., Cadot, O., Himbert, A., 2019. Let There Be Light: Trade and the Development of Border Regions. CEPR Discussion Papers 13515, CEPR Discussion Papers.



SECTION 4

Regional economic integration for job creation and structural transformation

The predominant challenge for the countries in the Horn is to generate enough adequate-quality jobs through economic transformation, which will require massive human and physical capital investments. The region's population is growing fast, but the fertility rate is not yet falling fast enough to deliver a demographic dividend; for at least the next decade and likely beyond, dependency ratios will remain high, and each successive cohort will be larger than the previous one. Major improvements in education and healthcare will be needed to accelerate the region's demographic transition and expand economic opportunities for its youth.

Strengthening development outcomes will hinge on the extent to which the quantity and quality of jobs keeps up with the growth of the working-age population, from 107 million at present to 143 million by 2030. While the scale of the challenge is daunting (Box 4), there are also significant economic opportunities that could be generated by accelerating structural transformation, supporting trade, and reducing critical gaps and distortions in product and factor markets (for example, gender gaps in regional labor markets, which currently suppress labor force participation to only 56% in Somalia and 33% in Djibouti).

Box 4: Projected labor force growth dwarfs the existing stock of "good jobs"

With youthful populations, the labor force in the region is expected to grow rapidly in the coming decade. Table 1 shows estimates of this evolution, based on UN population projections, and assuming that age and gender-specific labor force participation rates remain as measured in the most recent survey data. With the exception of Djibouti, all countries are expected to see labor force growth rates around

3% per year, translating in large net increases in the number of people available to work. In Ethiopia, by far the region's most populous nation, nearly two million more workers may be looking for a job each year over the coming decade. In Kenya, the net increase is close to a million potential workers per year. If labor force participation rates were to increase, these increases would be larger still.

Table 1: Projected labor force increase in HoA countries

	Labor force			Average annual net increase		Growth rate
	2020	2025	2030	2020-2025	2025-2030	2020-2030
Djibouti	255,000	280,000	300,000	5,000	4,000	1.7%
Ethiopia	55,578,000	60,930,000	70,173,000	1,832,000	1,995,000	3.0%
Kenya	23,472,000	27,438,000	31,574,000	793,000	827,000	3.0%
Somalia	4,373,000	5,180,000	6,098,000	161,000	184,000	3.4%
Eritrea	1,562,000	1,806,000	2,057,000	49,000	50,000	2.8%

Source: WPP, 2019. WB staff calculations.

The projected labor force growth dwarfs the existing stock of “good jobs” in the HoA countries.³³ Annual labor force growth is expected to be the equivalent of all current formal private sector wage employment within one to four years. In each country, the labor force is projected to grow within two to three years by as many workers as are currently employed in industry (Table 2). In Kenya, for instance, the projected annual growth of the labor force amounts to 29 percent of current

employment in industry and 34 percent of current private sector employment. In Ethiopia, the annual projected labor force growth amounts to over half of all existing private sector wage employment. Even though Ethiopia managed to create a lot of jobs in the industrial sector through focused support, the manufacturing share of urban employment has fallen from 12% in 2010 to 9% in 2018, illustrating the difficulty of increasing the share of good jobs when the labor supply is increasing rapidly.

Table 2: Annual labor force growth projections as a share of existing “good jobs”

	Annual net increase as a share of...		
	Absolute annual increase 2020-2025	Employment in industry	Formal private sector wage employment
Djibouti	5,000	37%	65% ^a
Ethiopia	1,832,000	39%	52%
Kenya	793,000	29%	34% ^b
Somalia	161,000	34%	89%
Eritrea	49,000	53%	25% ^b

a Increase shown relative to all current private wage employment, including informal.

b Increase shown relative to all current formal private employment, including self-employment.

Source:

³³ Due to data limitations, “good jobs” are defined as wage jobs in the private formal sector. The public sector provides good and stable jobs too, but growth in public sector employment is constrained by fiscal space and, hence, not sustainable. Though not all informal self-employment jobs are bad jobs, the comparable data needed to categorize self-employment into “good” and “bad” self-employment do not exist.

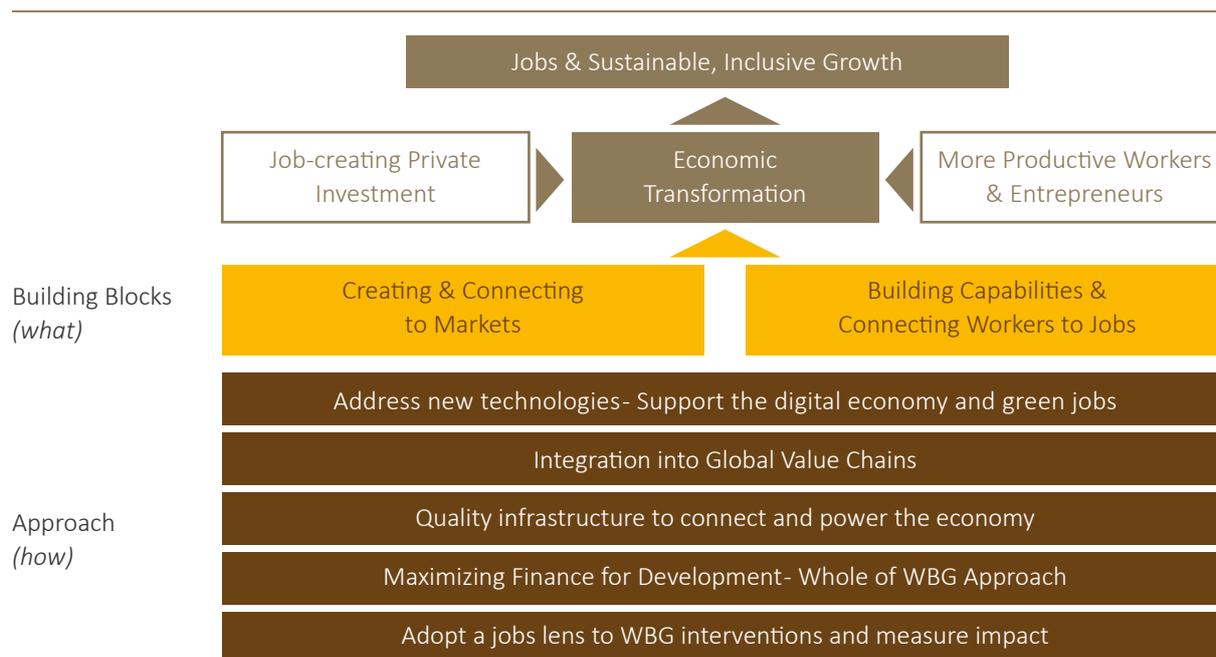
These simple figures highlight the multi-faceted nature of the jobs challenge in the HoA. The accelerated creation of more private formal sector jobs is needed for structural transformation and to accommodate the rapidly growing and youthful labor force, whose aspirations have been lifted by relatively higher education levels than the older generations, especially in urban areas. At the same time, the bulk of employment is and

will remain in agriculture and informal small-scale business activities in services, highlighting the policy importance of supporting broad-based productivity gains in these jobs, including agriculture. Low participation rates and worse employment outcomes for women call for policy measures to address the structural and behavioral barriers to women’s employment, further adding to the complexity of the challenge.

Achieving the economic transformation required to generate sufficient higher productivity jobs and lift living standards in the region will require a decisive upturn in the pace of private sector job creation. The economic priorities in the Horn are consistent with the jobs and economic transformation (JET) agenda, which recognizes the role of connecting to markets in generating job-creating private investment, and the importance of building capabilities and linking workers to jobs (Figure 34). In the Horn of Africa, there is an opportunity to drive the JET agenda through deeper regional

integration and investments in connectivity to improve access to markets across borders, realizing common opportunities to diversify, deliver jobs and reduce poverty and vulnerability. At the same time, however, implementing the JET agenda in the HoA will require dramatic improvements in education and other investments to build capabilities and overcome significant cross-border and interconnected risks, including currently poor human capital outcomes, large and rapidly growing numbers of youth, fragility, and environmental degradation and climate change.

Figure 34: The Jobs and Economic Transformation Framework



Source: World Bank, 2019.

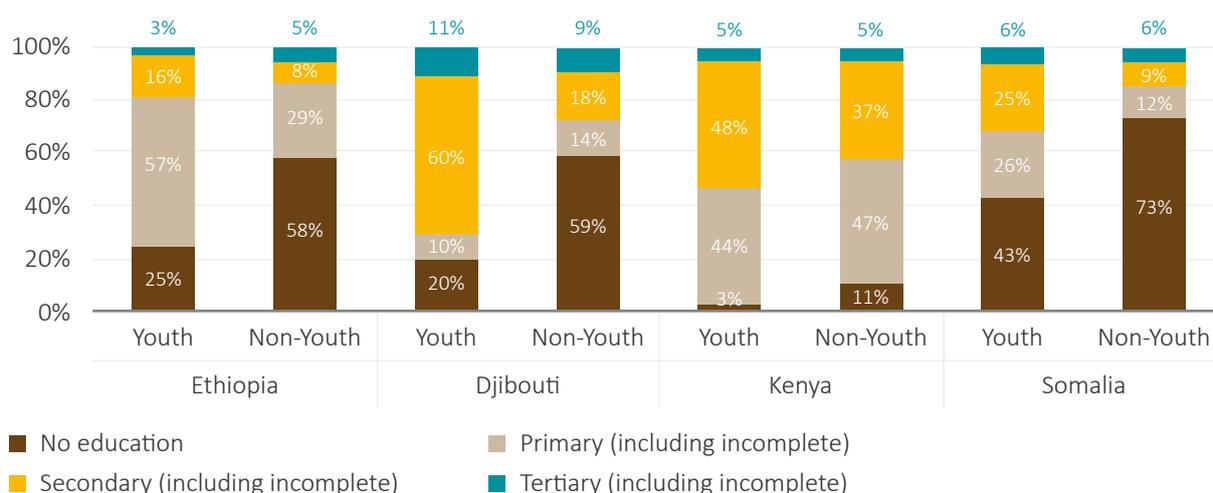
4.1 Building capabilities and connecting workers to jobs

A first-order priority in the HoA is to improve human capital outcomes of the young and rapidly growing populations. Returns to education in the region are high, driven by the large earnings gains individuals are able to realize when equipped with the skills and capabilities needed to move into higher-productivity activities and sectors. While countries in the Horn have made progress on getting more children in school, completion of primary school, progression to secondary school, and quality of learning have lagged. While the young generation generally has better educational outcomes compared to generations

before, poor outcomes persist for the youth as well (Figure 35). In Somalia, 43 percent of young people have not had any education. In Ethiopia, with a Human Capital Index of 0.38, less than 20 percent of young workers achieved more than primary education.³⁴ Raising worker productivity and improving access to improved earning opportunities will require strong improvements in basic education, especially given the high returns to primary schooling in low-income countries. Improvements in education for girls are especially important if countries in the Horn hope to reap a demographic dividend.

Figure 35: Educational attainment remains low in the Horn

(Educational attainment of the working-age population)



Source: WPP, 2019. WB staff calculations.

Improving human capital outcomes will require enhancing the spatial and social equity in public service delivery through spatially blind institutions. Location and household wealth are key determinants of educational outcomes in the Horn (Figure 30), with children in rural areas, lagging border areas, and children from lower-income households faring far worse. As a result, poverty is transmitted from one generation to the

next, creating persistent pockets of poverty and fragility. Provision of basic public services, including education and health care, should be spatially blind and universal in coverage. In the border areas, where populations tend to be mobile, and selected lagging rural areas, targeted programs to improve access to education and other critical public services may be needed to facilitate convergence with the more developed areas. Better educational

³⁴ Kenya is the exception in the Horn, with better educational outcomes and an HCI of 0.55 (the highest in continental sub-Saharan Africa).

outcomes in the lagging areas would also spur labor mobility towards areas with better economic opportunities, facilitating the integration of lagging and leading areas in the HoA. Such a scale-up in public services, and particularly investing heavily in education in lagging areas, while costly, would be more than merited by the expected high returns

this would generate. For low-income countries, private returns to primary education have been estimated at 25.4 percent. Returns to complete primary schooling amount to 32.5 percent in Djibouti, 32.7 percent in Ethiopia and 17.6 percent in Kenya.³⁵ Box 5 examines the associated public revenue mobilization challenge for the region.

Box 5: Revenue mobilization in the Horn of Africa

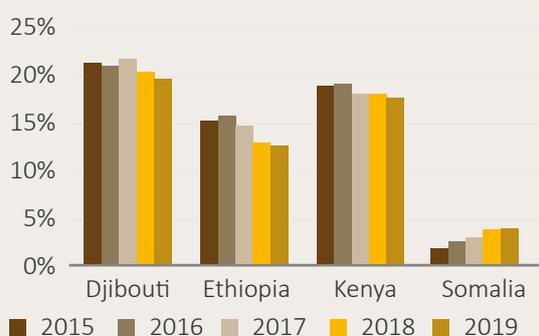
The level of revenue mobilization varies widely in the HoA countries, ranging from 4% of GDP for Somalia to 20% for Djibouti as of 2019 (Figure 36).

The (unweighted) HoA average of 15.1% is higher than that for low income countries in sub-Saharan Africa (12.7%), but it has declined over the past five years, and is now similar to the global average for low-income developing countries (Figure 37). Mobilizing more revenues will be essential to meet

social and infrastructure spending needs, especially if these are to be ramped up and made spatially blind to improve development outcomes in the lagging areas. Deepening regional integration will support this indirectly through its positive impact on economic growth and the tax base, but effective policy reforms and enhanced revenue administration will also be critical to meeting the funding challenge.

Figure 36: Revenue mobilization is relatively low

(HoA countries' revenue (excl. grants), % of GDP)

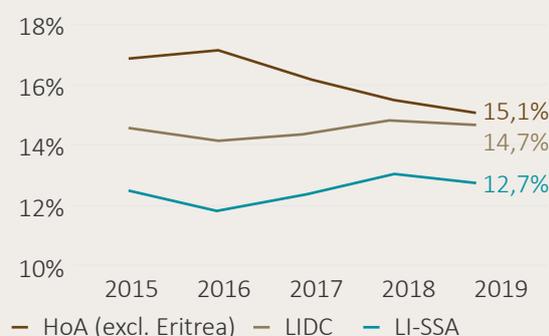


Sources: World Bank staff calculations based on IMF data.

With respect to revenue policy, a number of tax expenditures and special regimes in the region are costly and distortionary, and could be streamlined to minimize revenue leakage and broaden the tax bases. Ethiopia could realize additional revenue of 6.4% of GDP through sunseting tax expenditures and not granting new ones, removing VAT exemptions on some goods and services, and raising excise

Figure 37: And has decreased since 2016

(Regional average revenue (ex. grants), % of GDP)



Sources: World Bank staff calculations based on IMF data.

taxes on tobacco and beer. In the case of Djibouti, implicit tax expenditure costs amount to 7% of GDP, while in Kenya, rationalization of income tax and VAT could potentially yield revenue of up to 3% of GDP. Furthermore, the countries should review "nuisance" taxes and fees (which can generate disproportionate administrative costs and weaken tax morale and compliance), and regularly evaluate

³⁵ See Psacharopoulos and Patrinos (2018) on education returns in LICs, and Montenegro and Patrinos (2014) for the country estimates cited.

the effectiveness of individual tax expenditures in achieving the intended policy objectives. Annual reporting on tax expenditures would increase accountability and transparency.

Reforms in revenue administration could also improve collection, particularly in Djibouti and Somalia, where institutional and technical capacity are weak. Business processes should be simplified to reduce the cost of revenue administration and taxpayers' compliance burden. This requires comprehensive review and reengineering of processes, such as registration of taxpayers, assessment, payment, audit, and dispute resolution. For example, in Somalia, the operationalization of the large- and medium-taxpayer office is important, as such segmentation

would enable a better understanding of key taxpayers, their needs and behavioral risks, and improve the targeting of taxpayer service and compliance measures.

Effective data management is critical for tracking goods and services, managing revenue risk, designing tools to facilitate compliance, and enhancing tax policies. There is a critical need for more and better revenues data, including on trade-related revenues, which remain opaque in most of the region. This agenda would benefit from increased automation of revenue systems, provisions for transparency, and more data exchanges between countries' revenue agencies and other government entities which can serve as third-party data sources.

For populations in the lagging border areas, connectivity to economic opportunity can be improved through easier cross-border mobility.

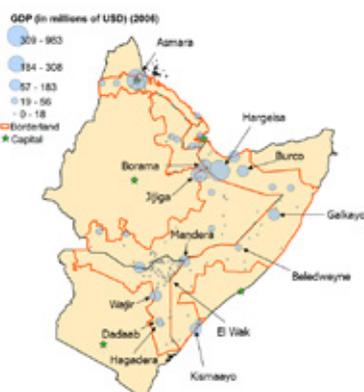
In many cases, border cities are closer to economic centers in other countries than they are to their domestic centers of economic density. Cities in border areas have been growing slower due to thick borders and large distances from their domestic economic centers. An exception to this general pattern and an example of the possibilities of improved cross-border connectivity has been the corridor between Jijiga in Ethiopia and Hargeisa in Somalia, in particular the Jijiga – Hargeisa – Borama triangle through the border post of Tog Wajaale and onwards to Berbera port (Figure 38), where

relatively good cross-border connectivity has led to flourishing trade and rapidly growing cities. Using night-time lights as a proxy for growth, Jijiga, Hargeisa, Borama and Berbera grew substantially faster than other cities in border areas (Figure 39). Coincidentally or not, poverty rates in Jijiga city are the lowest among all Ethiopian cities.³⁶ An example of the other extreme is Assab in Eritrea, the only city which experienced a large decrease in economic activity (as measured by NTL) since the early 1990s (Figure 39). Despite its strategic importance as a port, border closures with Ethiopia and Djibouti isolated Assab on all possible fronts with close to zero market access, leading to a collapse in economic activity.

³⁶ Based on the national poverty line, poverty in Jijiga decreased from 31.6 percent in 2005 to 5.9 percent in 2016. Overall, urban poverty decreased from 35.1 percent to 14.8 percent over the same period (FDRE, 2018).

Figure 38: The Jijiga-Hargeisa link is currently the densest cross-border economic corridor

(GDP of cities in the HoA border areas)

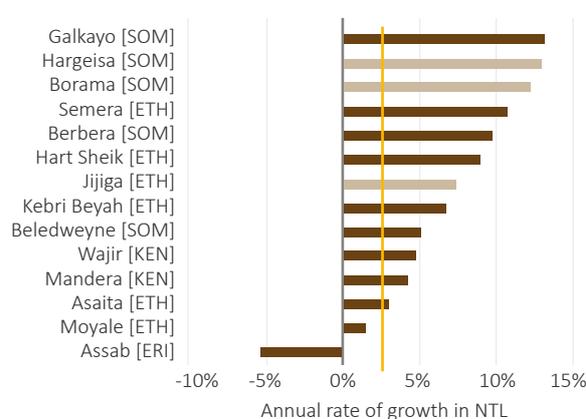


Source: Source: Ghosh et al. (2010).

Growth of towns and secondary cities also plays an important role in connecting workers to jobs and economic opportunities. Towns and secondary cities are growing fast across the HoA and the bulk of urban population growth in coming decades is projected to take place within these smaller cities and towns. An urbanization pattern characterized by growth of towns and smaller cities has tended to be more poverty-reducing as compared to growth of mega-cities, given the closer linkages towns have with the surrounding rural populations and the lower skills requirements of jobs in towns and smaller cities.³⁷ In the sparsely populated border areas, towns and secondary cities play a particularly important role in providing essential services to generally underserved mobile populations. Infrastructure and service provision is, however, lagging in towns and smaller cities as compared to large cities and national capitals, and substantial investments will be required to prepare towns and smaller cities in the HoA for the projected large growth in their populations.

Figure 39: And cities along this link have grown rapidly

(Growth in nighttime lights, 1992-2013)



Sources: WB staff calculations based on Li et al. (2020).

Digital infrastructure holds substantial promise for growth and jobs, though, except for Kenya, its development is lagging in the Horn. Poor regulatory quality, slow download speeds and relatively high costs result in low mobile penetration rates, predominantly skewed towards the largest cities (Table 3). The importance of digital connectivity has been highlighted by the ongoing pandemic, with everything from maintaining business operations and administrative government services to providing basic services such as education and pandemic-response social transfers hinging on access to affordable and reliable connectivity. Improving digital infrastructure in the HoA in an inclusive way will be required to allow businesses to be competitive in the digital economy, connect workers to jobs more effectively, including through the development of the “gig economy”, and spur financial inclusion, especially for vulnerable people in remote and underserved areas.

³⁷ Christiaensen, L., De Weerd, J., & Todo, Y. (2013). Urbanization and poverty reduction: The role of rural diversification and secondary towns. *Agricultural Economics*, 44(4-5), 435-447.

Table 3: Key telecom indicators for the HoA

Country	Fixed Broadband Penetration %	Mobile Penetration %	Number of Mobile Licensed Operators	Number of Fixed Licensed Operators	Mobile concentration index HHI* (GSMA)
Djibouti	16.3	37.6	1	1	10,000
Eritrea	0	10.6	1	4	10,000
Ethiopia	1.3	46.9	1	1	10,000
Kenya	3.8	107.9	4 +	8	5,135
Somalia	0.6	50.8	8	8	1,886
Africa Average	8.3	84.7	n/a	n/a	4,600

Notes: *The Herfindahl-Hirschman Index (HHI) is a measure of market concentration. A market with an HHI of less than 1,500 is considered to be a competitive marketplace, an HHI of 1,500 to 2,500 to be a moderately concentrated marketplace, and an HHI of 2,500 or greater to be a highly concentrated marketplace.

+ Kenya has also licensed three Mobile Virtual Network Operators (MVNOs) which can resell spectrum to offer more specialized financial services, for instance for the retail and financial services sectors.

4.2 Creating and connecting to markets

Poor intra-regional connectivity in the Horn emerges as one of the main manifestations of weak regional integration as well as an impediment to increased trade within the region. Enhancing regional connectivity should reduce the cost of access to factor and product markets and make connected economic centers in different countries more attractive by providing productivity benefits. Improving connectivity in the Horn will require substantial and coordinated investments in the development of physical transport corridors as part of a coherent strategy. To reap maximum benefits from these large investments, the corridor investments must be accompanied by policy and procedure harmonization and trade facilitation.

In the HoA, four priority corridors have been put forward as levers of regional integration, but improvements in domestic connectivity will be required to maximize the impact of these corridors. The four regional priority corridors are (i) the Kismayo, Lamu and Mogadishu corridor, (ii) the Assab and Djibouti corridor, (iii) the Berbera and Djibouti corridor, and (iv) the Mogadishu, Berbera and Bossasso corridor. While these corridors and other envisaged or ongoing policy ideas on infrastructure coordination and policy

and procedure harmonization are promising, they must be grounded in the development of coherent and comprehensive connectivity corridors. In that regard, targeted improvements in domestic connectivity can have substantial impacts on improving overall regional connectivity. In Eritrea, a national policy strengthening connectivity across the coastline from Assab to Massawa and Asmara and connecting this to the links coming in from northern Ethiopia would have large effects on both domestic and regional market access, as would extending connections from Assab into Djibouti. In Somalia, upgrading the road from Kismayo to the Kenyan border at Liboi would have major effects on connectivity between Nairobi and southern Somalia. Unlocking the gains from the priority corridors and other initiatives to improve transport connectivity in the region would benefit from improved coordination between national, bilateral, region-wide, and border city connectivity plans. The need for international coordination is particularly critical in the case of connectivity to port cities and major airports that serve as gateways to the region and the rest of the world.

Investments in the four corridors are expected to have significant effects on structural transformation and real household incomes,

but only if accompanied by trade and border facilitation. Results from a spatial general equilibrium model suggest that upgrading the four priority corridors would result in a three percentage-point increase in the non-agricultural employment share and a modest one percent annual increase in real household incomes. If the physical corridor investments are accompanied by better trade and border facilitation, estimated income effects are far larger, amounting to a 4.3 percent annual increase in real household incomes over the medium term (Table 4). Under conservative assumptions, this corresponds to an internal rate of return on the corridor investments of 15-18 percent (depending on the duration

of construction, and based on a back-of-the-envelope calculation to illustrate the strong likely returns). The importance of improved trade and border facilitation cannot be emphasized enough: Reducing impediments to trade and thinning borders can be at least as important to connect and spur the growth of markets as infrastructure spending that decreases travel time and cost. In the price dispersion analysis conducted for this report, the price effect of crossing a border is equivalent to increasing the travel time by three hours. Substantial improvements in market access can thus be attained through a coordinated approach on border facilitation to alleviate physical and institutional barriers (Figure 40).

Table 4: Percentage change in real income from corridor investments, with and without trade facilitation

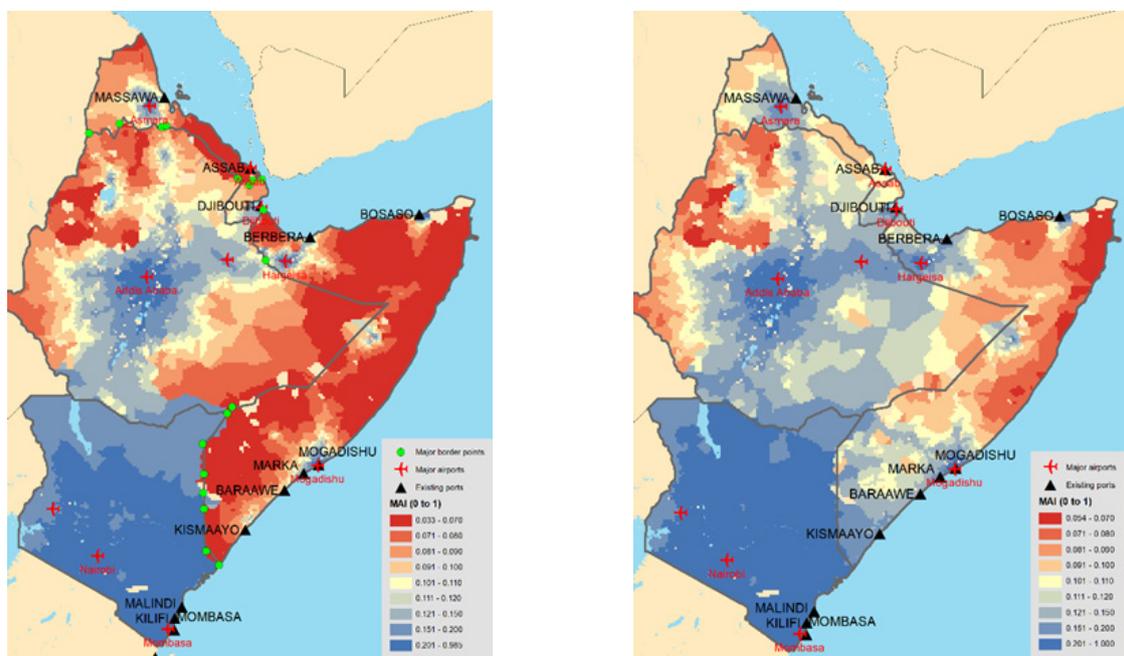
Scenarios	Total	Ethiopia	Djibouti	Somalia	Kenya
Transport only	1.0	1.3	0.0	1.4	0.7
With trade facilitation	4.3	3.9	5.3	6.3	4.9

Source: Herrera-Dappe and Lebrand (2021). No data for Eritrea.

Figure 40: Improved border facilitation would have a large effect on market accessibility

(Current market accessibility index)

(Market accessibility index when borders are opened)



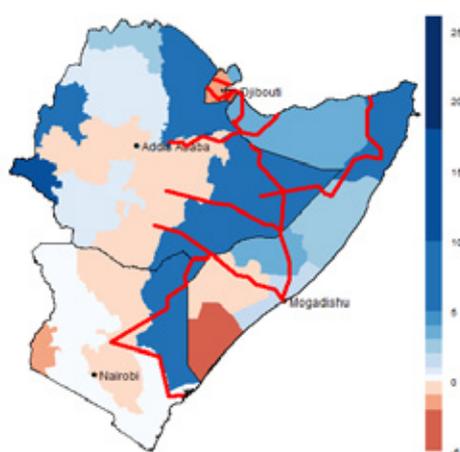
Source: World Bank background paper on HoA connectivity. The “borders opened” scenario models market accessibility if all existing border posts within the HoA would be open and operational.

In general, the border areas would benefit most from regional corridor investments, and the benefits would be higher and more widespread if accompanied by trade and border facilitation. Upgrading regional corridors would boost household incomes in the border regions most (Figure 41). If combined with trade and border facilitation, the benefits in terms of increased household incomes would be higher and more

widespread, reaching the hinterlands of the Horn as well (Figure 42). Corridor investments and improved border facilitation would also lead to increased regional specialization, with certain regions specializing in agriculture (due to comparative advantages) and others in non-farm activities; Figure 43 shows the modeled results of improved connectivity and border facilitation on the share of non-agricultural employment.

Figure 41: Corridor investments would boost incomes in the border areas

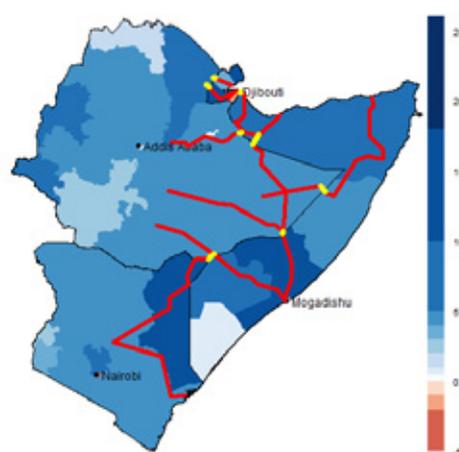
(Welfare impacts of corridor investments vs. baseline, %)



Sources: Herrera Dappe and Lebrand, 2021.

Figure 42: And would be higher and more widespread if combined with border facilitation

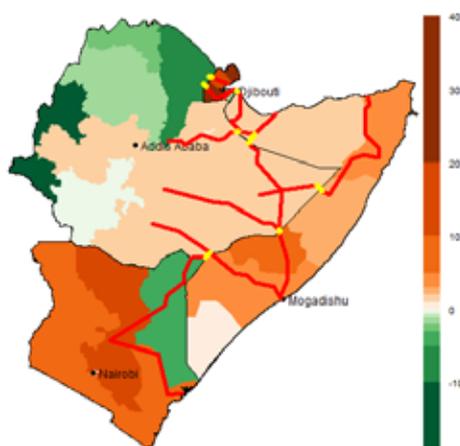
(Welfare impacts of corridor investments and border facilitation vs. baseline, %)



Sources: Herrera Dappe and Lebrand, 2021.

Figure 43: More regional specialization in response to improved connectivity

(Change in the non-agricultural employment share, transport and border facilitation)



Source: Herrera Dappe and Lebrand, 2021.

Trade facilitation encompasses measures and investments at the border, and also along trade value chains to reduce trade costs. Whilst there are still important knowledge gaps to fill on the key trade cost raising barriers and challenges, information from this REM, and experience from other regions in Africa, suggest a broad approach to trade facilitation that both reduces trade costs and improves the efficiency of regulation at the border. Every border crossing is unique in terms of the terrain, climate, the types of goods being traded and the challenges that traders and officials face. Nevertheless, effective trade facilitation will typically require:

- Simplification and greater transparency of trade policies and border procedures (accompanied by automation where possible).

- Investments in physical infrastructure at the border to improve security and working conditions for officials and traders (e.g., electricity, water, buildings, shelter).
- Capacity-building for officials (especially gender awareness) and traders and traders' associations.
- Developing cross-border markets in terms of facilities and access (including ensuring that women traders have equal access).
- Investing in sanitary, phytosanitary and veterinary services and facilities to improve the quality of food and livestock trade, increase returns to farmers and improve control over pest and disease outbreaks.
- Addressing the challenge of access to foreign exchange in certain countries.
- Improving access to, and the quality of, trade-related transport and logistics to reduce costs and damage and wastage.

These reforms and investments will be most effective when coordinated on both sides of the border. This can be achieved through dialogue at the national level on policies, procedures, and physical investments and also at the local level on implementation through, for example, joint border committees. Monitoring of progress to ensure the effective implementation of reforms will require investments in data collection and reporting mechanisms. For example, the ability of traders to report instances of abuse is an essential element in bringing accountability to the actions of officials and to reduce harassment, physical violence, and corruption at the border.

Better infrastructure and coordinated trade policy reforms that reduce trade costs for small-scale traders will encourage the use of formal

border crossings and promote security. Poor facilities at official crossings together with lack of awareness of relevant rules and regulations by traders, harassment by, and weak accountability of, border officials, may push some traders towards more convenient and less costly informal crossings. However, this can put the traders at risk from lack of security and they may be forced to make payments to local militias. Solutions to this challenge are undermined by a lack of cohesion and a common understanding between the federal government, which controls the official international border checkpoints, and the local administrations.

Increased volumes from trade facilitation measures and reductions in corruption tend to generate larger revenues from taxation of trade. In addition, greater trade activity leads to more expenditures in the local economy on services such as food and hotels, which in turn contributes to general revenue collection. If some of these revenues remain in the border areas, or are allocated by the center to investments in those areas, then experience from other countries suggests this can support a gradual escape from a low level equilibrium of corruption, distrust of officials and small-scale activities, to a more virtuous circle in which improvements in policy and facilities further contributes to higher trade volumes and revenues and broader private sector activity.

Deepening trade integration in the Horn of Africa will pave the way for the effective implementation of the Africa Continental Free Trade Area and the significant economic benefits it is expected to bring. A recent study by the World Bank suggests that implementation of the African Continental Free Trade Area would provide a substantial boost to trade in Africa and generate significant economic benefits.³⁸ For Ethiopia these could amount to an income gain of around 9 percent, and for Kenya over 11 percent, among the highest in Africa, reflecting high current barriers to

³⁸ World Bank (2020) *The African Continental Free Trade Area: Economic and Distributional Effects*, World Bank, Washington

trade. These gains come from the removal of tariffs and reduction of non-tariff barriers on intra-African trade. But the biggest impact comes from trade facilitation measures, accounting for around three-quarters of the overall gains for both countries. The large boost in household consumption expected to result from greater trade openness could lift as many 8.2 million people in Ethiopia and 4.4 million in Kenya out of moderate poverty. Although data limitations prevented detailed modelling for Eritrea and Somalia, similar, if not larger impacts, could be expected given their higher trade restrictiveness. Hence, this reinforces the importance of improvements in trade facilitation and the removal of tariff and non-tariff barriers among the Horn of Africa countries and that this would generate additional benefits beyond those directly related to greater trade within the region, by better connecting the countries to partners elsewhere in Africa under the broader objective of African integration.

Next to investments in domestic and regional connectivity in the Horn to connect to markets, local investments are needed to enhance connectivity within metropolitan regions. Addis Ababa and Nairobi already are some of the major metropolitan regions of Africa, encompassing millions of people. Other economic centers are also growing in importance. The emphasis on connectivity provision for border cities and port cities should not preclude improving connectivity around the biggest cities' metropolitan regions. This additional focus is justified because the virtuous effects of air transport connectivity and rail corridors between major cities tend to spill over to proximate cities. When multiple cities form a dense regional network, a larger number of producers and consumers can be connected. The infrastructure built by public authorities in these urban regions opens markets and opportunities in proximate towns through the capitals' gateway effects.

SECTION 5

Key actions for jobs and economic transformation in the HoA

Raising living standards in the Horn through more and better jobs will require a menu of actions and reforms. Some of these actions will, due to their very nature, be more domestically oriented or less amenable to a regional approach (for instance, improving education and strengthening skills) while others will require deliberate and sustained regional coordination (such as coordinated investments and reforms to facilitate cross-border trade). This section lays out

the key actions based on the analysis presented in this overview, structured around the 2009 WDR framework of “Institutions, Infrastructure, and Interventions”. Institutions refer to policies that should be spatially blind and universal in coverage (for instance, the provision of basic public services). Infrastructure refers to policies and investments that are spatially connective (roads, railways, etc.). Finally, interventions are programs that are explicitly spatially targeted.

5.1 Institutions: Building human capital

The countries in the Horn are characterized by sparsely populated and peripherally located lagging areas. People in those areas are on average poorer and suffer from multiple overlapping deprivations in public service delivery. The policy approach to integrate these lagging areas with the leading areas should focus on institutions.³⁹ Examples of institutions include property rights, land and labor regulations, macroeconomic stability, and the provision of essential social services such as health, education, and water and sanitation. Institutions should be provided and applied regardless of place.

The spatially blind provision of social services, and especially education, is a foundational priority for countries in the Horn and a major

national policy priority. Based on the latest household surveys, a substantial share of youth (15-24) in the HoA do not complete primary education (with large variations across countries and regions within countries). Consistent with the emphasis placed by the JET agenda on building capabilities, it is difficult to see how broad-based improvements in productivity, earnings, and living standards can be achieved with these low levels of education. Improving human capital will require a strong effort in the Horn’s borderlands and lagging rural areas, where human development indicators and service delivery are poor. Improving girls’ education will also be particularly important given its effect on bringing down fertility rates and laying the foundations for a growth-boosting demographic dividend.

³⁹ See World Development Report 2009.

5.2 Infrastructure: Trade facilitation and harmonization and selective investments in physical infrastructure

There are substantial projected gains from deeper integration and more trade in the Horn, in terms of higher incomes, increased food security and greater stability. This will require policies and investments that are spatially connective: Improving regional transport connectivity, including through addressing missing links in domestic transport networks, and improving trade and border facilitation. While physical investments in cross-border corridors and infrastructure are projected to have positive effects on household welfare, especially in the border areas, the effects will be far greater and more widespread if the physical investments are combined with improved trade and border facilitation. Reducing impediments to trade and thinning borders can be at least as important to connect and spur the growth of markets as infrastructure spending that decreases travel time and cost, especially in the HoA's border areas. Investments in connective infrastructure (both between and within countries), trade policy reforms and trade facilitation will need to be assessed from a regional perspective and coordinated with neighboring countries in order to reap the biggest returns. Given the high cost

of infrastructure, investments in cross-border connectivity need to be selective and rigorously analyzed within a cost-benefit framework.

The Horn's border areas in particular would benefit greatly from improved coordination and harmonization of trade policies and improved border infrastructure. The Horn's borderlands are lagging areas, the result of a long and complex history of fragility and marginalization, and are characterized by low economic density and high economic distance to the domestic economic centers. Often, the nearest economic center for borderland populations is located at the other side of the border, but thick borders and opaque trade policies limit productive interactions with these centers. Facilitating cross-border trade and mobility is the least-cost way to increase market access for the populations in the border areas, with expected positive impacts on welfare and economic activity. In the few places in the HoA where borders are operational and relatively fluid, and where some key infrastructure has been provided, trade has flourished, and vibrant cross-border corridors of density have emerged.

5.3 Interventions: Metropolitan regions and selected secondary cities

The ongoing rapid urbanization in the Horn can be an engine for structural transformation and better jobs, but requires targeted investments in secondary cities and around metropolitan areas. The Horn's urban population has grown from 20 million in 2000 to 50 million in 2020 and is expected to increase to 90 million by 2035. This rapid urbanization will increase demand for food grown in rural areas of the region, potentially benefiting rural producers. Most of the increase in urban population is projected to happen in secondary cities and towns, which usually have stronger links with their surrounding rural hinterland and are more poverty-reducing.

However, infrastructure and service provision in smaller cities are lagging compared to capitals, warranting substantial investments to prepare for their projected growth. This is particularly important for secondary cities in the border areas, which play a crucial role in service delivery to, and market access for, mobile populations in sparsely populated lowlands.

In addition to targeted investments in secondary cities, local investments are needed to enhance connectivity within the big metropolitan regions in the Horn. Addis Ababa and Nairobi already are some of the major

metropolitan regions of Africa, encompassing millions of people. Improving connectivity and tackling congestion around the capital cities'

metropolitan regions allows nearby places and people to benefit from agglomeration economies, unleashing network spillover effects.

5.4 Additional considerations

The analysis conducted for the HoA REM points to three additional policy considerations and priorities.

First, the analysis has shown that there is a strong case for a concerted and coordinated effort to improve living standards and reduce fragility in the Horn, including by applying regional, cross-border strategies. While spread across different countries, the border areas of the HoA face similar challenges: poor service delivery and human development outcomes, lagging infrastructure, high economic distance from domestic density and international density (thick borders), vulnerability to climate change, and fragility. The returns to investments and policy reforms in the border areas will be amplified by coordinated, subregional efforts. For instance, cross-border models of education and health service delivery could be considered, taking advantage of target populations having greater scale when people living on either side of a border are included (e.g., to realize scale economies in the provision of home-language education), and could be particularly cost-effective where populations are isolated domestically but closer to service delivery facilities across a border. Similarly, investments in better infrastructure and connectivity in a border area of one country will only have limited effects if the border remains thick or infrastructure on the other side remains poor. Coordinated disaster preparedness and response effects could help protect the poor and vulnerable, especially in the face of climate change. Across all these dimensions, a regional perspective would also

help focus development partners' support and maximize its overall impact.

Second, job generation in the formal private sector in the Horn, while essential, will only deliver a fraction of the job opportunities needed to accommodate the booming labor force. While jobs policy must take account of the differences in economic structure between the countries of the region, workers in the Horn would likely benefit most from policies for broad-based, cross-sectoral productivity growth (notably including in agriculture), centered around maintaining macro-fiscal stability, mobilizing more public revenues and deploying these towards greater and more efficient spending on public services (notably education) and infrastructure, as well as improving the investment climate and access to finance.

Third, there is an urgent need for more, better quality and more timely economic data for the region (including using more recent technology and methods, such as remote sensing and big data such as mobile phone data) to support analysis and sound policies. These tools are likely to be of particular use in improving our understanding of the issues at the main border crossings and along the key cross-border value chains, as well as those arising in secondary cities – critical dimensions for driving development in the borderlands of the HoA.

Annex Map: The Horn of Africa and its main cities



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2. Jobs in the Horn of Africa (Tom Farole, Jan von der Goltz and Tove Sahr)
3. A Review of Cross-Border Trade in the Horn of Africa (Paul Brenton and Habtamu Edjigu)
4. Infrastructure and Structural Change (Matias Herrera Dappe and Mathilde Lebrand)
5. A Framework for Enhancing Intra-Regional Connectivity in the horn of Africa (Charles Kunaka and Ben Derudder)
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