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**‘An assessment on trade data tracking and  
analysis with particular emphasis on the  
impact of the Covid-19 pandemic on selected  
sectors’**

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## Acronym

AACCSA	Addis Ababa Chamber of Commerce and Sectoral Association
CSA	Central Statistical Agency
ECCSA	Ethiopian Chamber of Commerce and Sectoral Association
EC	Ethiopian Calendar
ETB	Ethiopian Birr
FDRE	Federal Democratic Republic of Ethiopia
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GOE	Government of Ethiopia
GTP	Growth and Transformation Plan
IR	Inception Report
MoU	Memorandum of Understanding
PSD	Private Sector Development
TMEA	Trade Mark East Africa
ToR	Terms of Reference

## Executive Summary

The Covid-19 pandemic is one of the most serious challenges the world has faced in recent times. The overall cost of human life has yet to be determined. The Covid-19 outbreak was triggered in December 2019 in the city of Wuhan, Hubei province of China. Covid-19 has arrived in Ethiopia on March 13, 2020. The total confirmed cases reached nearly 700 by the end of May 2020 with 5 confirmed deaths. At the end of October 2021, the total cases escalated to about 365 thousand, with 6,500 Covid-19 related deaths which rests at 1.8% of the total cases, and vaccinates about 3.5 million.

The Covid-19 pandemic has forced a change in both developed and developing countries' way of life, economic, and policy responses. It resulted in profound disruption, if not devastation, in people's everyday life. More specifically, Covid-19 has rapidly and radically reshaped interactions between people, government, economic actors, policymakers, etc. More than ever, therefore, the private sector looking for serious macroeconomic measures and a sort of impact and policy response required to mitigate the effects of the pandemic. Clearly, the pandemic has not had an equal impact in all sectors and economies; its impacts have been differentiated and not homogenized.

Since the beginning of 2020, more and more countries across the globe shut down their borders and limited transportation and travel to contain the coronavirus (Covid-19) outbreak, thus, creating impediments for international trade and transportation. The pandemic affects almost every dimension of economic activity and individuals globally. As a consequence of the coronavirus outbreak, important supply chains in the logistics and transportation industry are hampered, though differently across air, freight, and sea sectors. The crisis triggered by the pandemic was estimated to shave off \$2.7 trillion in Global GDP in 2020 (JCCE, 2020b). (Díaz-bonilla, 2020; Yeyati & Filippini, 2021) attested that at a global scale, the fiscal support reached nearly \$16 trillion (around 15 percent of global GDP) in 2020. The collapse of international tourism due to Covid-19 has been estimated to cost the world at least \$4 trillion in terms of global GDP for 2020 and 2021 (UNCTAD & UNWTO, 2021). (FAO, 2020b) estimations also indicate up to 130 million people across the globe may have been hungered in 2020 as the result of the economic recession triggered by the pandemic. The predictions on Ethiopia's case have been pessimistic too. (A. Geda, 2020) estimated Ethiopia's GDP growth with Covid-19 may decline by 11% (with -5.5% at least and -16.5% worst-case scenario) in 2020. (UN, 2020) predicted up to a 30 percent drop in agricultural production. Several other early projections foresaw catastrophe to the Ethiopian economy with Covid-19.

Via meticulously observing the likely adverse impacts of the pandemic on the Ethiopian economy in general and the private sector in particular, the Ethiopian Chamber of Commerce and Sectoral Association (ECCSA) in association with TradeMark East Africa (TEMA) has taken the initiatives and commissioned the conduct of this study. The study basically aims at understanding how and to what extent the Covid-19 pandemic has an impact on the Logistics, Agriculture, Manufacturing,

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and Tourism sectors so as to provide concrete recommendations on measures to be taken by the Government of Ethiopia (GOE) in lessening the ravages. The study was conducted based on both primary and secondary data. The primary data was collected through survey methods and in-depth interviews using structured and unstructured questionnaires. Focus group discussions (FGDs) were also conducted with relevant stakeholders including selected business communities. The secondary data was obtained through a review of reports produced by relevant bodies including government authorities, non-government actors, and business communities. We surveyed 400 samples from across the four identified sectors (Agriculture, Manufacturing, Logistics/Transport, and Tourism/hospitality) in five cities of Ethiopia, namely: Addis Ababa, Adama, Bahirdar, Dire Dawa, and Hawassa.

The findings of the study reflect numerous impacts unfolded across the identified sectors in the country. We summarized these key findings as follows:

### ***Tourism and hospitality***

The tourism and hospitality industry is one of the worst-hit economic sectors by the Covid-19 pandemic. Early projections show that the sector would gravely suffer owing to assorted measures taken to contain the virus's spread, which in either way affects activities of the sector. Movement restrictions, lockdowns, visa issuance delays, quarantine requirements, etc mean there would be less people mobility from place to place, and thus shrink in the number of tourists and other customers. Hotel rooms would be empty, restaurants become vacant, tourist destinations turn deserted and all along the tourism value chain would agonize due to the domino effect. Without exception, the Ethiopian tourism industry suffers the pandemic's such sequels. There are numerous evidences that hotels, restaurants, bars, barbers/saloons, taxis, and tourist sites are facing a complete loss of customers. Ethiopian Airlines, hotels, car rental companies and other tourism-related businesses have experienced significant financial and material losses and which they overcome the effect yet.

According to the hotel marketers association, the impact of Covid-19 in Addis Ababa at early periods of the pandemic in 2020 has seen 88% of hotels either full or partially closed and the market will take some time to recover. There is an estimated up to USD 35 million loss per month due to the effects of the pandemic in the city in 2020. Hotels in regions reportedly lost up to USD 10 million per month due to lower occupancy level in March and April 2020. Ministry of Tourism sourced data shows the number of international visitors dropped from about 800,000 in 2019 to 600 thousand in 2020. The revenue obtained from the sector also slashed from 3.1 billion USD in 2019 to around 2 billion in 2020, apparently portraying the adverse effect of the pandemic. It is not surprising to witness the sample survey respondents significantly suffered in terms of service drops,

slumped business growth, laid off more employees, encountered revenue and customer losses, faced financial constraints, etc. The companies changed the way they operate to keep their employees safe while obeying to the nationwide state of emergency announcements. At the firm level, different strategies to minimize costs and mitigate the cash shortage have been taken and the government has also supported the business through tax exemptions. Yet, the hit has been so hard to the sector and with travel and public gathering restrictions are yet to relax, the Covid-19 impacts are so substantial and difficult to overcome in a short period of time.

### ***Transport and Logistics***

Covid-19 pandemic has had an unprecedented impact on the logistics and transport networks that cover the trucking, air, rail and maritime industries across the globe including Ethiopia. Different nations have been taking assorted actions such as border closures, distance policies, quarantines, movement restrictions, etc to contain the disease's spread. This directly affects the transport and logistics sector, a prime agent for the movement of goods and services unremittingly. Containment measures have been dramatically restricting the movement of goods and people which substantially affected the economy as a whole and supply chains bringing in a diverse set of domino effects in almost all economic sectors and systems (Loske, 2020). The Pandemic has been collectively affecting activities and performances of the Ethiopian transport and logistics sector since its emergence in March 2020.

The Ethiopian government took different measures to minimize and prevent the impact of Covid-19 on the transportation sector especially during the five-month state of emergency declared in April 2020. The economic effects of the pandemic has been largely mixed. The cargo section, be it on road, air or sea, performed well while passenger movement-related activities and businesses slumped. Cargo shipped by sea increased by 14%, between 2019 and 2020.

Addis Ababa light rail transit (LRT) encountered a staggering 71% reduction/ loss in the daily average number of passengers commuted and revenues obtained immediately after the onset of the pandemic in the country. A year-to-year comparison also shows a 45% and 46% drop in the number of passengers and revenues, respectively before and after of the advent.

Intra-regional transport service rendered along the Addis Ababa-Djibouti route halted in March 2020 and never resumed since then. In contrast, the cargo volume transported using railways show a 24% rise bringing a revenue increment of 21% between October 2019 and October 2020. As to the air transport service, the Covid-19 pandemic has caused

Ethiopian Airline losing its number of passengers by nearly 60% in 2020/21 compared to figures in 2019/20. However, cargo haulage by the airliner surged by 35%. Ethiopian airline revenue fell from USD 4.2 billion in 2019 to USD 3.3 billion in the 2020 Ethiopian fiscal year (The data shows records between July 2019 and July 2020).

Similar to other sectors, the operators in the transport and logistics sector encountered various effects of the pandemic. As learned from the sample survey and FGDs conducted, service contractions, revenue losses, business downturns, rise in costs, financial shortages, serious disruptions with both domestic and international suppliers, and other challenges were faced by many in the sector and especially during the five months state of emergency since April 2020. The greater share of the sample survey respondents disclosed that help didn't arrive from the government to rescue the sector and most sought financial related supports from the state. Despite all the challenges brought about by the pandemic, they hope and are confident that their business would recover from the messes encountered.

All in all, Covid-19 resulted in a positive outcome on the cargo haulage with the opposite effect on the passengers travel. With its domino effect, other economic segments such as the tourism, manufacturing and service sectors unquestionably impacted severely because their service depends on goods and particularly people's movement. A restriction on goods and people's movement means a loss in customers and revenues in other sectors such as the tourism and hospitality. With an understanding of such chain reactions and proper disaster prevention preparedness, it can be possible to minimize the ill effects of such incidences in the future.

### ***Manufacturing***

The Covid-19 pandemic has severe impacts on the manufacturing sector in particular and the Ethiopian economy in general. Early predictions show that more than 30% of Ethiopia's micro, small and medium enterprises (MSMEs) could be in trouble due to the pandemic's ramifications (UN, 2020). The sector has been predicted to severely suffer owing to the high drop in global demand, supply chain disruptions and other factors (JCCE, 2020a). Early assessments depict that there has been a disturbance of supply chains in Ethiopia, largely on account of closure of manufacturing industries and transport bans on services connecting the capital (Addis Ababa) with regions during the early periods of the pandemic in the country (UN, 2020).

The sample survey (conducted for this study) results indicate that about 80 percent of the manufacturing firms experienced a decline in sales compared to the same period of the previous year. Similarly, about 80 percent reported drop in number of customers and nearly 84 percent have been experiencing a decline in revenue. Firms in Ethiopia are

responding to the crisis through the adoption of digital technologies and different government policy responses. Only about 30 percent of the survey respondents have been satisfied with government responses to the pandemic. Finally, the survey result suggests policy response options to focus on the following areas: access to grants, low-interest loans, provision of working capital to firms and postponement of tax payments.

Indubitably, the manufacturing sector has been suffering a lot due to the effects of the pandemic. It is expectantly a double hit to the Ethiopian manufacturing wing as it has already been struggling with a multitude of production/productivity challenges in the pre-Covid era. The sector's growth has been so sluggish despite massive efforts executed to uplift in the past decades.

### ***Agriculture***

The agriculture sector has been less impacted, in contrast to what was predicted at the onset of the pandemic in the country. Several early projections expect huge drops in production, deepened food security crisis, significant income loss to the smallholder farm households and thus appalling rural poverty situation, hefty rural unemployment, price hikes in agro-products, loss of foreign earnings, and so forth. Few foresaw less impact of the pandemic on agriculture compared to other sectors.

Although there were no specific and direct package measures to protect operations of the masses in the agriculture from the pandemic's effect, The Ethiopian government has prepared and enforced the Covid-19 action plan in five key areas for the agriculture sector.

In contrast to early gloomy predictions, the agriculture sector has been performing well in the Covid era except for slacks in a few sub-sectors. The total area covered with crops and total production has witnessed a 2.7% and 5.4% increase, respectively since last year (2019/20). Only drops were recorded in the production of some crops such as sugar cane and oilseeds. The size of land irrigated also declined by about 14% mainly due to investment issues in the sector. Export of flowers shows no sign of fall and no decline in livestock population observed since the start of the pandemic. Yield associated with animal products such as egg and milk registered growth except for honey production. No major change spotted in the food utilization pattern since the pandemic's emergence. Agricultural input distribution and utilization trend has been generally smooth.

Although most of the agriculturalists we surveyed expressed the pandemic's adverse effects on their businesses in terms of such as causing cashflow shortages, production

and revenue losses, input supply shortages, employment crisis, high input cost etc, they equally didn't quit operations due to the pandemic and they are confident that their business would recover from the pandemic's upshot. In general, statistical figures depict positive results, antipodal to what were feared at the outset. We argue that we could have seen a huge food security crisis due to production losses, export earnings from agricultural produces descended, agro-processing firms closed or significantly reduce capacities, etc, had there been early pessimistic predictions of the pandemic's effects fall out.

Government responses to the pandemic and the deep rooted social relations in the country substantially helped mitigate the virus. The economy however still struggles to recover from the pandemic's effect. The Ethiopian economy has been vulnerable to shocks such as Covid-19, climate changes, desert locust infestation, and war in 2019, 2020, and 2021. The government officially announced that nearly 100 billion birr spent for 8 months of the war in Tigray Since November 2020. Obviously, these shocks have been put pressure on the national economy in general and private sectors in particular. This makes it difficult to clearly single out the effect of the Covid-19 pandemic on the economy. In this regard, we share Geda's (Alemyehu Geda, 2021) perspective regarding the extent of Covid-19 influence on the Ethiopian economy in such a way that the country's macroeconomy has been already troubled (notable macroeconomic imbalances and precarious fiscal and balance of payment, and hence foreign exchange problem situations) due to various other factors prior to the emergence of the pandemic owing to partly the structural factors and partly because of macroeconomic miss management sustained for more than two decades (Alemyehu Geda, 2021). The pandemic has only added fuel to the already deteriorating macro-economic situation of the country. With the government predicting about 30 million people to become food insecure due to the pandemic's effect in 2019/20, on top of the already macro-economic turbulences aggravated with the intensified conflict in the country (especially in Tigray, Amhara and Afar regions), measuring the pandemic's real effect is elusive.

Based on the study findings, we identified five key experiences (labeled as the pentad lesson) help minimize the influence of Covid-19 Pandemic: Political will & commitment, Economic diversity & Transformation, Vaccination, Digitization and Building /strengthening strong social relations and capital. These are the major excerpts the Ethiopian government may capitalize upon to mitigate the current as well as future pandemics.

This report also inculcates detailed recommendations tailored to the sectors covered by the study framed with short, medium and long term time spans. We generally believe that the government needs to devise effective short, medium and long term strategies to deal with the current and future similar pandemics. Based on the lessons picked, a diversified and resilient economy, practical anti-pandemic health policy (such as vaccination), exploiting local good practices, make

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use of technologies and strong leadership will have a powerful overall effect on mitigating such shocks. The following cross-sectoral recommendations illustrate possible impact areas of the pandemic, the likely remedies, responsible actors for realization, and expected results with the time frame.

Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span
<b>On employment</b>	<ul style="list-style-type: none"> <li>-Prepare contingency plans for the provision of critical workers under emergency circumstances</li> <li>-Implementing all national and global Covid protocols</li> <li>-Install alternative work arrangements, including short-term leave, telecommuting, and cost-sharing through partial salary adjustments where applicable</li> <li>-Introduce regulations to prevent large-scale layoffs</li> <li>-Institute sanitation rules in the workplace, and assess mobility policies to encourage remote working, where possible and necessary.</li> </ul>	- GoE (Minister of Health, Ethiopian Public Health Institute, Ministry of Transport and Logistics, Ministry of Finance, Ministry of Labour and Skills Development)	-Negative Covid impacts on employment would be mitigated	Short-term/medium-term
<b>On production</b>	<ul style="list-style-type: none"> <li>-Develop pandemic response protocols and roadmap for sectors</li> <li>- Transfer of new knowledge to the respective sectors along with their value chain system.</li> </ul>	- GoE (EIC, Ministry of Transport and Logistics, Ministry of Finance, Ministry of Innovation and Technology, Ministry of Labour and Skills)	-Maintain firm production level	Medium- and long term
<b>On inputs</b>	-Develop an information-sharing tool among key actors	GoE (Ministry of Industry, Ministry of Transport and Logistics, Ministry of Innovation and	-Timely information delivered	Medium-term

Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span
		Technology, Ministry of Finance, Ministry of Labour and Skills Development and EIC)		
<b>On finance</b>	<ul style="list-style-type: none"> <li>-Focus and fund allocations for Research and Development</li> <li>-Extend the support packages such as tax reductions and exemptions, delay tax payments, loan repayment delays delivered to businesses since the Covid-19 impacts are long-lasting</li> <li>-The government should cover /share parts of operational costs (such as utilities and advertisement expenses, delay land /working premise lease fees, etc) through direct and indirect means to support firms recover financially</li> <li>-Assist firms in adjusting their operations to cope with the effects of the pandemic through measures such as cost reductions, adept sales strategies, introducing new but innovative business lines, maximizing the digital operations and the like.</li> </ul>	- GoE (Ministry of Finance, Ministry of Revenue, NBE, and EIC), Financial Institutions, Research Institutes, Academia	-Share or cover part of financial loss	Medium- and long-term
<b>Overall</b>	<ul style="list-style-type: none"> <li>-Expand vaccinations</li> <li>-Build a strong diversified economic base that can resist shocks</li> </ul>	-GoE (respective ministerial organs including the Prime Minister Office), and	-Additional cases decreased, the	Short term, medium and long term

Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span
	<ul style="list-style-type: none"> <li>-Establishing crisis and emergency communications strategies for sectors</li> <li>-Knowledge exchange to share experiences among countries on the impact of Covid on sectors</li> <li>- Strengthen social organizations</li> <li>-Promote development of digital and communication technologies</li> <li>-Professional support and guidance to sectors on the mechanisms to handle such crisis times</li> <li>-Promote the business community to work hard via taking the advantage of experiences working and surviving in the era of the Covid-19 pandemic i.e. working while preventing the spread of the virus</li> <li>-Emplace effective communication systems and strategies to mitigate and contain the likely impact of similar pandemics through such as public awareness creation and education campaigns.</li> </ul>	<p>regional governments, Ethio-telecom, Chamber of commerce, Donors, Academia, Media</p>	<p>economy respond and recover from the pandemic before getting to late</p>	

## CHAPTER ONE: INTRODUCTION

### 1.1. Background and rationale of the study

Ethiopia is the second-most populous country on the continent, after Nigeria, with an estimated population of over 109 million inhabitants in 2020 (WB, 2020a). Of which, roughly 80 percent live in rural areas and derive their income primarily from agriculture-based activities, and the remaining residing in urban areas (CSA, 2013). Despite the fact that Ethiopia is one of the poorest nations in the world, its economic growth has been accelerated at an unprecedented pace in the most recent decade. After the unprecedented impact of the Covid-19 pandemic, albeit, slowed in 2020, Ethiopia exhibited a staggering economic growth since 2004, which has mainly been underpinned by public-sector-led development. Arguably, real Gross Domestic Product (GDP) has been growing by an average of about 10.5% since 2014/15 with agriculture, service, and industry sectors accounting for 38.8%, 46.6%, and 15.2% shares, respectively (Arkebe Oqubay, 2015; MoFED, 2016; NPC, 2020) Yet, (Alemu) the economy remains to shoulder a debt burden (58% of GDP), a budget deficit (3.7% of GDP), a trade deficit (12.4% of GDP), and a current account deficit of 4.5% of GDP. On top of this, Ethiopian official growth lacks structural transformation and is characterized by inequality (Alemayehu Geda, 2001). Unashamedly structural transformation is much more important than mere per capital growth for the sustainability of the growth path.

Succinctly in the recent 10 years macroeconomic perspective development plan (2021-2030) of the country, the private sector is considered as an engine of economic growth and accelerates progress towards middle-income categories status. Likewise, the successive Growth and Transformation Plans (GTP-I and II), the predecessor of the current 10 year macroeconomic plan, recognized that Ethiopia is striving to promote a vibrant private sector that can play a key in the development of the country, albeit, much change has not been realized yet. Hence, the private sector has been hampered by a lack of adequate competence, incompetent legal institutions in handling commercial disputes, low risk diversification capacity, and less resilient. Other challenges may encompass lack of access to finance, working premises, adequate utility, skilled manpower, business management skill and the like.

Historically there have been pandemics that occurred at different points in time and locations globally. A case in point (Maital & Barzani, 2020) noted that there have been four pandemics in the past 130 years. In 1889-1892, an H2N2 virus was the most lethal. No reliable statistics, though, are available. In 1918, the first cases of Spanish flu emerged in the US, killed between 1.9 and 5.5 percent of the total world population (the estimated total number of deaths totalled between 34.4 million and 100 million). In 1957 H2N2, and in 1968 H3N2 virus cases, the mortality rates were extremely low.

The Covid-19 pandemic is one of the most serious challenges the world has faced in recent times. Hitherto, the total cost in terms of human lives is yet to unfold. The Covid-19 outbreak was triggered in December 2019 in the city of Wuhan, which is in the Hubei province of China (WHO,2021)<sup>1</sup>. When it comes to Ethiopia, with all the forging economic achievements and nature of the economy, albeit, that Covid-19 has arrived in Ethiopia on March 13, 2020 (the first case notified officially by the Ministry of Health). Since then, the confirmed cases had been very low than expected till the end of April/2020. Yet confirmed cases have been showing significant increment. As per the ministry of health, the total confirmed cases have reached nearly 700 by the end of May/2020, and 5 confirmed death registered. Currently (as of October 31<sup>st</sup>, 2021) the total cases escalated to 365,167, with 6,459 Covid-19 deaths (1.8% of total cases) and 339,742 Covid-19 recoveries (93% of total cases) (EPHI, 2021<sup>2</sup>)(Roser et al., 2021). As per Ethiopian Public Health Institute (EPHI), about 3.51 million citizens have been vaccinated as of October 31, 2021. Considering this, Ethiopia, Africa's second-most populous and the fourth-largest economy, is one of the countries hardest hit by Covid-19 in Africa, after South Africa, Morocco, Tunisia, and Egypt (WHO,2021)<sup>3</sup>.

Undoubtedly, the Covid-19 pandemic has forced a change in both developed and developing countries' way of life, economic, and policy responses. It resulted in profound disruption, if not devastation, in people's everyday life. More specifically, Covid-19 has rapidly and radically reshaped interactions between people, government, economic actors, policymakers, etc. More than ever, therefore, the private sector looking for serious macroeconomic measures and a sort of impact and policy response required to mitigate the effects of the pandemic. Obviously, the pandemic has not had an equal impact in all sectors and economies; on fragile economies and resilience Hence, its impacts have been differentiated and not homogenized.

Ostensibly, the silver lining of, under the outbreak of Covid-19, is, certainly, all sectors have been affected. The pandemic has affected all the sectors of the economy and all segments of the society through production cuts, unemployment, and a rise in the cost of living. Yet, In Ethiopia the majority population relies on an agrarian economy based, and the industrial development of which is still at an infant stage, the consequence has so far been showing much severe. A case in point, the deadly Covid-19 pandemic has rapidly been spreading since the first case identified in Ethiopia and has been creating a major crisis. As mentioned before, Ethiopia enjoyed a positive development of real GDP for several years in the past. Yet, Covid-19 has resulted in major challenges in social, and economic-financial stability.

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<sup>1</sup> <https://Covid-19.who.int/region/afro/country/et/>

<sup>2</sup> <https://Covid-19.ephi.gov.et/>

<sup>3</sup> <https://Covid-19.who.int/region/afro/country/et/>

Undoubtedly, Ethiopian economy is import-dependent and one of the sectors the pandemic affects the economy is through disrupting imports. Relatedly, airlines and shipping lines have seriously been affected by the travel bans. Unusually, cargo has been taking more time to be transported due to new protocols in terms of certification, licensing, etc. Certainly, all of these are a bottleneck on the supply chain of the economy. Following this, sectors like agriculture, manufacturing are directly affected in the process of import and export. Above all, the impact has seriously been reflected on the tourism sector (mainly its sub-sectors: hotels, bars, restaurants, and tourist agencies). While maintaining historical and cultural assets for centuries, sufficient efforts have not yet been made to leverage these assets for economic growth in Ethiopia even before the advent of the pandemic. (Tesso, 2020) has noted that the adverse impact on the aviation sector will mean less foreign exchange earnings required for much-needed imports, plus hits on remittances, and the tourism sector will also affect foreign exchange earnings. Globally, for instance, (Ozili, Peterson and Arun, 2020) noted that the tourism industry alone recorded a loss of over \$200 billion. In fact, the tourism industry has been affected by the declining number of tourists flow. This resulted in mainly travel-related restrictions and economic slowdown in other countries implies that fewer tourists coming to Ethiopia.

Logistic and trade sectors have also been hard-hit by the pandemic. Hitherto (A. Geda, 2020) has noted that the trade balance (TB) and balance of payment (BOP) problems of the country are generally structural and an economic shock like this simply accentuates the situation. For instance, (WB, 2020b) has estimated that the African continent will observe a 1.4% point GDP decline equivalent to \$29bn (i.e., from US\$ 66 billion in 2019 to US\$ 37 billion in 2020). It is estimated that Covid-19 will shave 2.9% points off this fiscal year's economic growth in Ethiopia. In terms of trade across border indicator of the world bank's recent doing business report, Ethiopia ranked 156 (159<sup>th</sup>) out of 190 countries (WB, 2020a). In short, trade in services like airplane travel, hotel rentals, and tourism have already been hit hard by both the supply-side and demand-side aspects of Covid-19 (Tomiura, 2020).

Via meticulously observing the likely adverse impacts of the pandemic on the Ethiopian economy in general and the private sector in particular, the Ethiopian Chamber of Commerce and Sectoral Association (ECCSA) in association with TradeMark East Africa (TEMA) has taken the initiatives and commissioned the conduct of this study. The study basically aims at understanding how and to what extent the Covid-19 pandemic has an impact on the Logistics, Agriculture, Manufacturing, and Tourism sectors so as to provide concrete recommendations on measures to be taken by the Government of Ethiopia (GOE) in lessening the ravages.

Unquestionably a study like this is pertinent for at least three interconnected reasons. First, as highlighted before, the country's economy has been showing improvements in the last decade,

albeit, Ethiopian economy is still at an infant stage. It is, therefore, studies (A. Geda, 2020; Tesso, 2020; Tomiura, 2020) have pervasively argued that the impact of Covid-19 is much more severe in a country where its economy has a weak structural foundation. This supports the urgent need of this study. Second, the Ethiopian economy in general and the private sector, in particular, are less resilient, if not it is not at all, for internal and external, natural and man-made, economic and political, etc shocks. As a result, ensuring the country to have a robust preparedness plan to mitigate such an unprecedented pandemic is indispensable. Third, as per the 2020, World Bank's doing business report, Ethiopia ranked 159<sup>th</sup> out of 190 countries with a 48% score (WB, 2020a). Hence, following the pandemic, the doing business environment will go from bad to worst unless prior intervention and measures are taken. On the whole, certainly the Ethiopian economy is fragile and vulnerable to the Covid-19 pandemic. Hence, by examining short, medium, and long-term impacts of Covid policy response sooner rather than later is required.

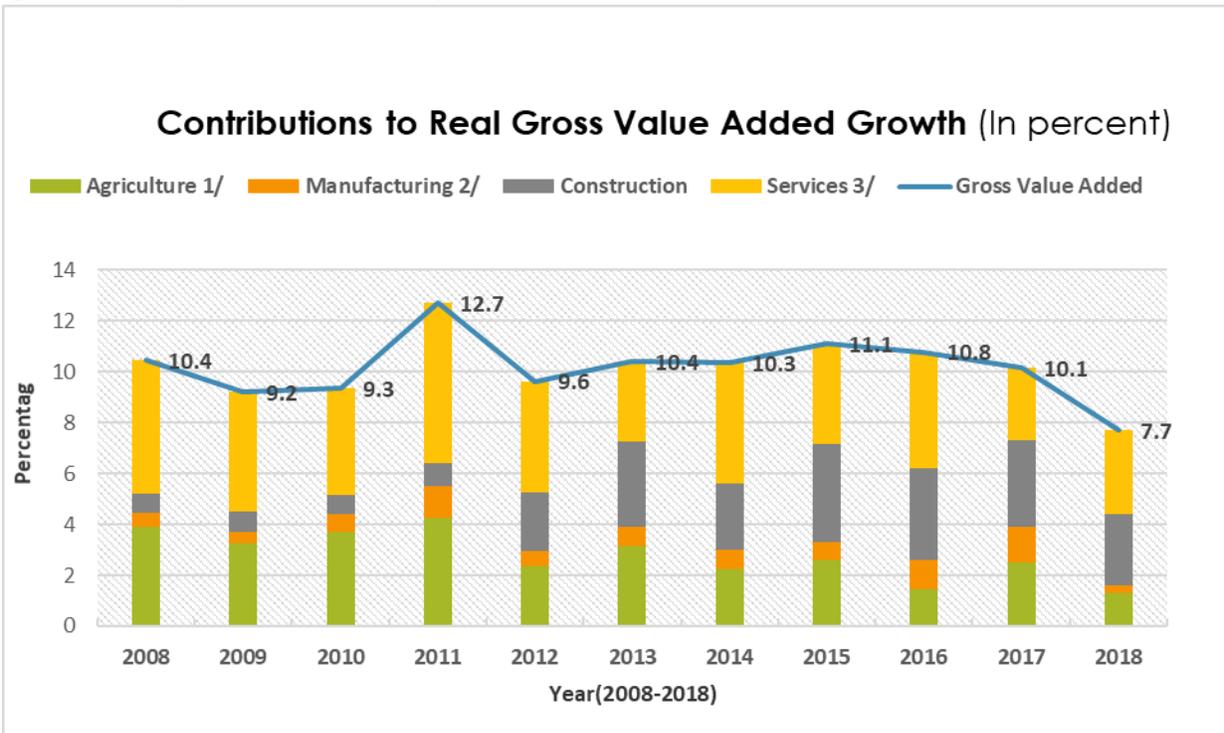
Thusly, the result of the study is highly beneficial both for the Ethiopian Chamber of Commerce and Sectoral Association (ECCSA), to conduct evidence-based policy advocacy with the concerned government organ particularly for the consumption of Public-Private dialogue (PPD).

### **1.2. Ethiopian economy and Covid-19 pandemic nexus**

Arguably, soon after the Covid-19 prevalence, scholars were divided on the government role. A case in point (Ozili, Peterson and Arun, 2020) has stated that policymakers in government have been facing two major decisions, which is to: 'save the people before saving the economy', or 'save the economy before saving the people'. They argued that one choice had to be made because it was difficult to achieve both at the same time. Doubtlessly, such a divide has been reflected in governments' actions all over the world, Ethiopia, not an exception.

It is imperative to note that in the past two decades, Ethiopia has registered a fast growth rate (averaging 10%) and has become the fast-African growing economy. Yet showing a declining tendency from 9% in 2018/19 to 6.2% in 2019/20. As per (EPDC, 2020; NPC, 2020), the service sector accounts for about 42% of Ethiopian GDP and generates nearly 20% of total employment. As also stated before, the contribution to GDP and employment generation of the manufacturing sector remains very low. Following Covid-19 pandemic and given such nature of the sector the global supply chain breakage for the input and output market has a considerable negative impact on the operation of the manufacturing sector (Tesso, 2020).

Figure 1: Ethiopian Macro Economy Trend



Source: Adapted from (NPC, 2020)

As can be seen from the above figure, contributions of the service sector to real gross value added growth has been significant comparing with the agriculture and manufacturing sectors. It is unvarnished true that the performance of manufacturing sector is very low. Despite the recent years saga, (Oqubay, 2018a) noted that Ethiopia has emerged as one of Africa’s fastest-growing economies, albeit, its manufacturing sector is still far from being an engine of growth and economic transformation. It currently plays a marginal role in employment creation, exports, and output, and falls short on stimulating domestic linkages.

As per the ten years (2020-2030) perspective national plan of Ethiopia (EPDC, 2020; NPC, 2020), the following specific impediments for each sector are identified. For the Agriculture sector insufficient yield growth due to inefficient provision of inputs and services, difficulty with respect to land lease rights, limited investment on research and development (R&D) and irrigation, marketing and logistic related problems, and lack of agriculture-specific financial services. The manufacturing sector remains underdeveloped despite recent efforts to stimulate the sector due to inefficient incentive structure, limited backward and forward linkages, and insufficient incentives for the production of import-competing activities. A study by (Belay et al., 2018) identified poor backward and forward linkages of the sector as an impediment. For the tourism

sector, challenges include limited accessibility and attractiveness, insufficient marketing and branding, and weak supporting institutions.

Given all the above-mentioned already identified impediments in each sector, Covid-19 pandemic will certainly affect their performance and push their economic contribution from bad to worst. As a case for instance, a study by (A. Geda, 2020) states that the impact of the Covid-19 pandemic is estimated to reduce the country's GDP by 11.1 percent in the fiscal year 2020/21 (as well as the last quarter 2020). This shock is found to be the highest in the industrial sector which is expected to shrink by 17 percent. This will be followed by the services sector which is expected to shrink by 15.6 percent. The agricultural sector is expected to be the least affected as it is expected to contract by only 1.6 percent. On top of that 11 percent, the economic shock is to reduce this GDP by 227 billion Birr.

(Maital & Barzani, 2020) noted that Covid-19 could affect the global economy in three main ways: by directly affecting production (supply), by creating supply chain and market disruption (supply), and by its financial impact on firms and markets (principally demand). (Ozili, Peterson and Arun, 2020) also argued that the reduction in goods flowing through the global supply chain, and substantial reliance on China for imported goods, led to shortages of supplies to import-dependent countries as China shut down many of its export factories. Thus (Tomiura, 2020), a supply shock in China is likely via the trade in intermediate goods to create what might be called 'supply chain contagion'. (Alemu) has also debated that as an import-dependent and supply-constrained economy, one major channel through which the pandemic will be affecting the economy is through altering imports. China, the manufacturing hub of the world and the number one import sourcing country for Ethiopia has been stuck.

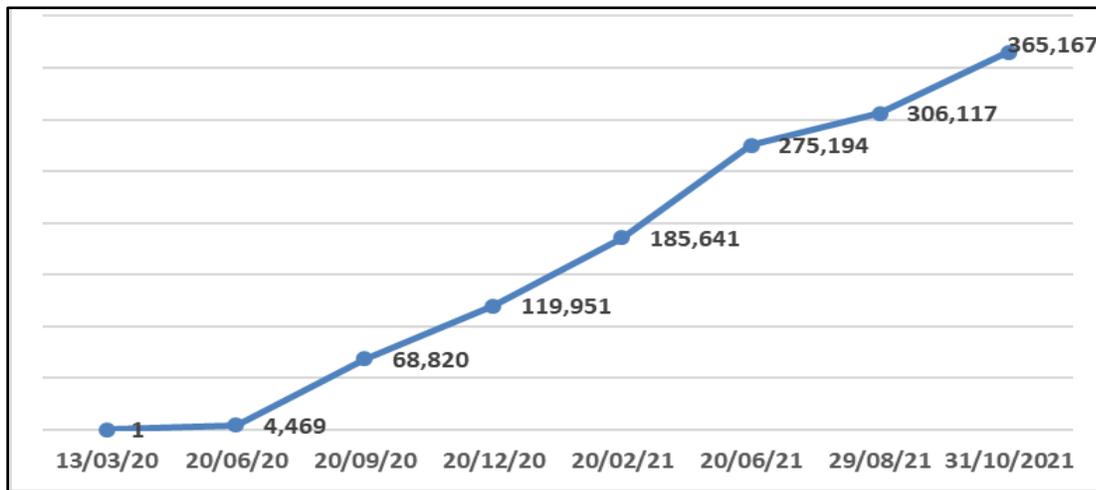
On top of that, trade balance deficit has been idiosyncrasies of Ethiopia for a long period of time, amounting to 9.8% of GDP in 2019/20 primarily reflecting a low level of exports from a mostly undiversified basket of commodities and a high level of dependence on imported intermediate inputs, capital goods, fuel and food (wheat)(NBE, 2020a; WB, 2020b). According to (Tomiura, 2020) Covid-19 is a supply and demand shock. Both aspects will impact international trade in goods and services.

As per (Tomiura, 2020) shocks to bilateral exports fall neatly into supply shocks (changes in the GDP of the origin nation, i.e. the seller) and demand shocks (changes in the GDP of the destination nation, i.e. the buyer). They further explain the decomposition suggests two aggregate trade implications: Covid-19 is a supply shock, exports will fall, and they will fall most in the nations that are most severely hit and are a demand shock, imports will fall, and they will fall most in the trade partners of the nations that are most severely hit.

In regards to agriculture, the local segment of the supply chain also experiences new pain points. These include lower agricultural marketable, higher farm gate price, sluggish supply due to longer collection time, longer transport time, higher loading and unloading mark-up, higher distribution cost, and longer retail filling (Alemu). Whereas according to (Tomiura, 2020) the manufacturing sector is likely to get a triple hit. First, Direct supply disruptions hindering production. Second, supply-chain contagion will amplify the direct supply shocks as manufacturing sectors in less-affected nations find it harder and/or more expensive to acquire the necessary imported industrial inputs from the hard-hit nations, and subsequently from each other. Third, demand disruptions due to: (1) macroeconomic drops in aggregate demand, i.e. recessions, and (2) precautionary or wait-and-see purchase delays by consumers, and investment delays by firms.

In Ethiopia, manufacturing will also be affected. (Alemu) has argued that this has to do with the availability of labour, costs of ensuring safety to employees, the negative impact of the pandemic on input supply and output marketing, and an overall reduction in production. As can be depicted from the figure below the total number of cases in Ethiopia showing increasing with an increasing trend, and hence, havocs the economic performance and exerts pressure on the overall economy.

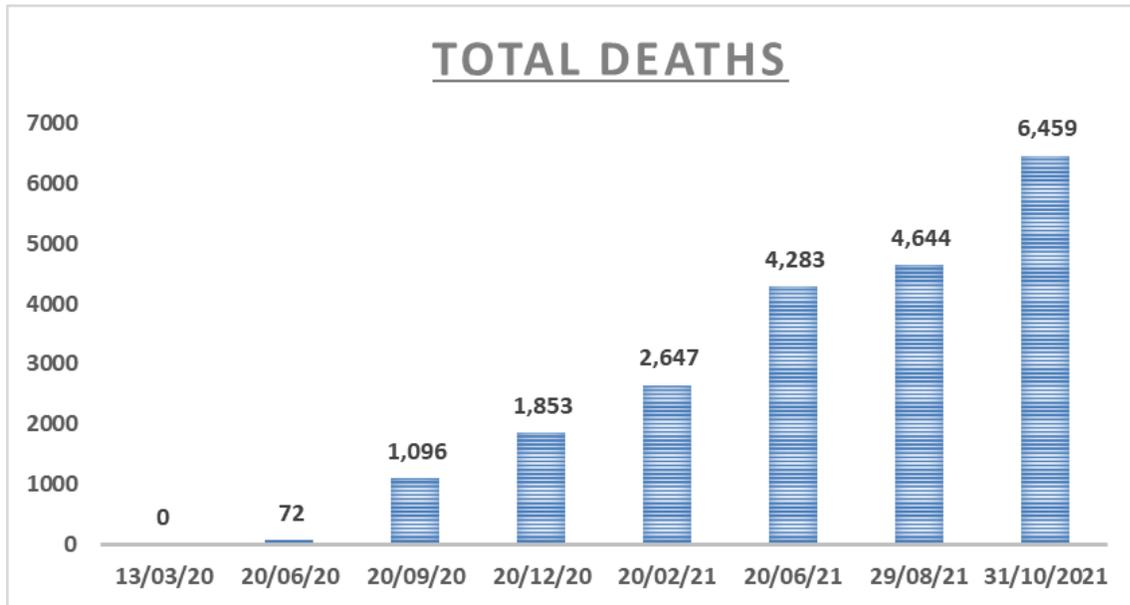
Figure 2: Total cases of Covid-19 since the first case identified on March 13/2020 (Line graph data on 3 months basis)



Source: Based on Raw data from (Roser et al., 2021)

Since the first case on March 13, 2020, Covid-19 infections have been increasing in Ethiopia. The country has so far recorded about 365,167 infections and 6,459 (both as of October 31<sup>st</sup>, 2021) coronavirus-related deaths since the pandemic began.

Figure 3: Total deaths of Covid -19 since the first case identified on March 13/2020 (Chart data on three month basis)

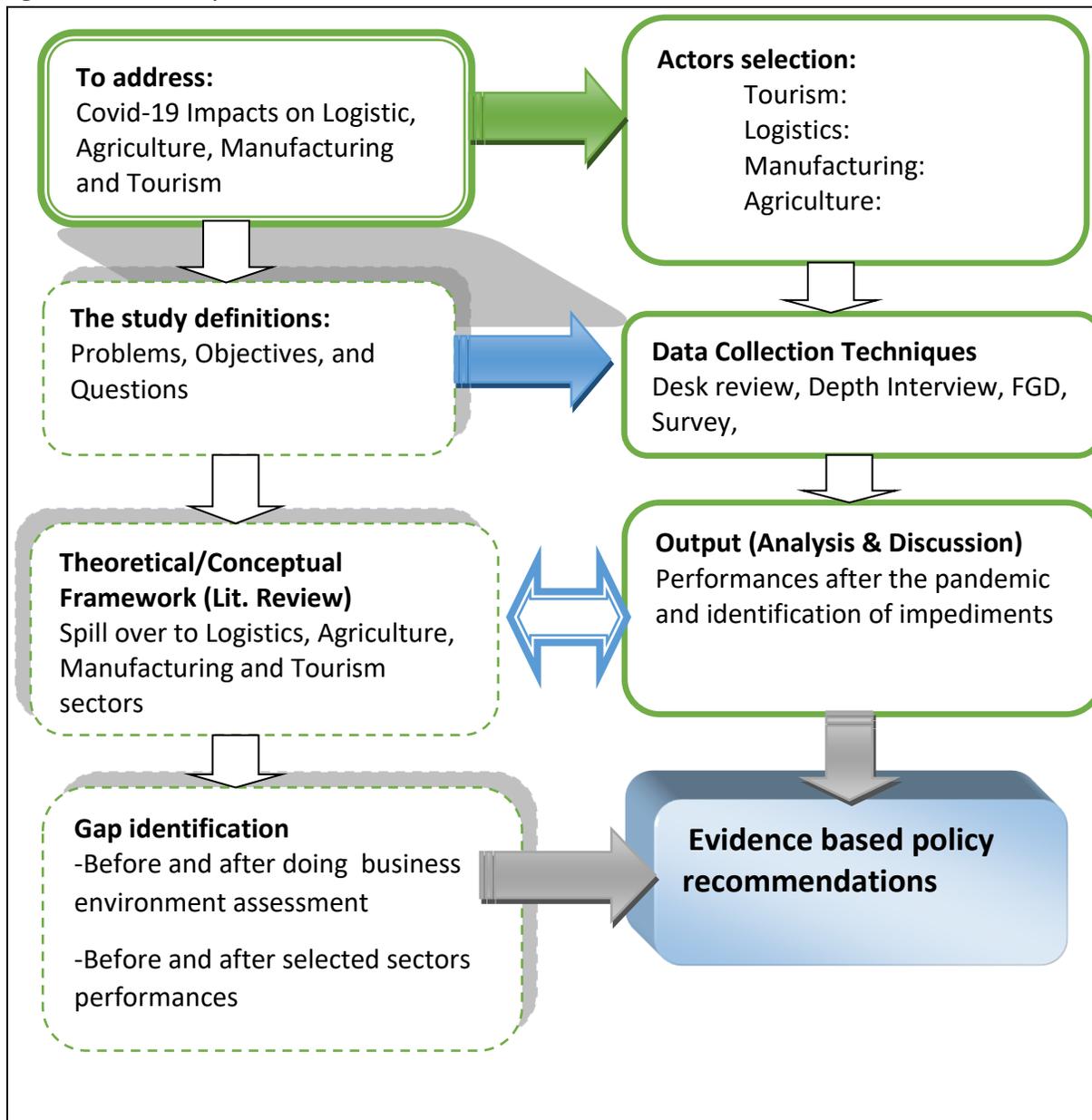


Source: Based on Raw data from (Roser et al., 2021)

Overall, as of October 31<sup>st</sup>, a total of 365,167 confirmed cases of Covid-19 were registered in Ethiopia with 6,459 Covid-19 deaths (1.8% of total cases). Overall cases, of course, 339,742 recoveries in the country. Hitherto, on April 01, 2021, the highest daily increase in the number of infections was recorded in Ethiopia at 2,372 (Roser et al., 2021).

Generally speaking, the pandemic has considerably been put a challenge to the private sector. It should be recalled that the Ethiopian private sector is infant, less capitalized, and hardly institutionalized. Above all, it is vulnerable to seasonal changes (Alemu). It is obvious that a factor as global as Covid-19 will have a sizeable impact on the private sector. This is furthered by the fact that the market is also undeveloped and provides a little alternative for risk diversification to the private sector.

Figure 4: The study flow chart



Source: Own formulation

### 1.3.Objective of the study

The study aims at undertaking an investigation to pinpoint major challenges triggered by the Covid-19 pandemic on identified economic sectors, namely, manufacturing, logistics, agriculture and tourism so as to provide concrete recommendations on measures to be taken by the Government of Ethiopia (GOE) in lessening the ravages.

Specific objectives include:

- Conduct data tracking and analysis exercise of previous 3 consecutive fiscal years to benchmark the economic performance before the advent of the pandemic;
- Identify major barriers in the logistics sector mainly at sea and airports, rail and borders across the region due to the Covid-19 pandemic and demonstrating its impact on trade volume, logistic cost and transit time;
- Identify the major barriers in manufacturing, agriculture, logistics and tourism sectors due to the Covid-19 pandemic and demonstrating its impact on production and productivity of the sectors;
- Evaluate the impact of Covid-19 pandemic on export and import commodities' performance by tracking trade data before and after the pandemic to reflect variations associated with the pandemic;
- Provide sound recommendation on measures that needs intervention which will contribute to lessen the impact of the pandemic on logistics, manufacturing, agriculture and tourism sectors; and
- Generate private sector position paper out of the assessment report for consultative Public-Private dialogue (PPD) to be undertaken with pertinent government bodies.

#### **1.4.Scope of the study**

The study is thematically delimited on assessing challenges faced by four major economic sectors (logistics, manufacturing, agriculture and tourism) due to the recent Covid-19 pandemic and coming up with pertinent recommendations to minimize the adverse effect of the disease. The temporal scope of the assignment covers before and after the prevalence of the pandemic. More specifically, it employees some 3-5 years consecutive fiscal years to benchmark the economic performance before the advent of the pandemic. Geographically, the study analysis covers the entire Ethiopia with the ground level data gathered from Addis Ababa, Adama, Bahirdar, Hawassa and Dire Dawa cities.

#### **1.5. Limitations of the study**

Data lacuna is the leading limitation of this study. We faced difficulty in accessing both the primary and secondary information required for the study due to several factors including: unavailability of data, unwillingness to provide information, delays in provision of the available data, incompleteness and unreliability of information gathered (for example in relation to firm revenue and expenditures), and the like. Such hurdles forced us to largely anchor on descriptive statistics instead of conducting inferential statistical analysis using our data.

To offset this limitation and ensure the reliability of the analysis, different data collection techniques including in-depth interview and desk review analysis have been employed to supplement the data generated through the sample survey. The study's analysis section has also relied largely on results from the sample survey and several secondary sources (with limited qualitative analysis), rendering the study constrained. Furthermore, one of the assignment's hurdles has been recognized as the difficulty in gaining access to those accountable private and government personnel during the study period, as this makes it impossible to obtain adequate and reliable information.

### **1.6. Organization and Outline of the Study Report**

Organized with six chapters, the report starts with an introductory section that constitutes the background, objectives, scope and limitations of the study followed by methodology in the second section. The third chapter deals with the literature review focused on the impact of the pandemic covering historical perspectives, socio-economic impacts witnessed in the globe, crisis management related theoretical discourses and policy actions taken to contain the spread and effects of Covid-19 pandemic across nations. The result and discussions are covered in the fourth chapter. This section basically discusses the major findings in the four sectors using data obtained from primary and secondary sources. Chapter five discusses coping mechanisms against the effects of the pandemic and finally conclusion and recommendations are given in chapter six.

## CHAPTER TWO: APPROACH AND METHODOLOGY

The consulting firm primarily commenced with developing a conceptual framework (see section 2.5. for details) which expounds on the likely correlation between the identified four sectors and the pandemic. Each thematic area requires the identification of measurement parameters capable of portraying the likely spillover effects that would lead to the design of pertinent effect containment policy responses for the betterment of the economy (recovery) and thus the private sector.

This was important because the assignment basically needs designing indicators to measure the likely effects. Pertinent key performance indicator (KPI) parameters were outlined for each of the sectors covered by the study to gauge the possible economic effects in the post-pandemic era. This basically required benchmarking facts and figures in the pre-pandemic period by taking representative time points. The relevant data was then collected and evaluated using appropriate methodologies and tools, yielding this study's output.

### **2.1. Methods of data collection**

The study was conducted based on both primary and secondary data. The primary data was collected through a survey method and in-depth interviews using structured and unstructured questionnaires. Focus group discussions (FGDs) were also conducted with relevant stakeholders including selected business communities. The secondary data was obtained through a review of reports produced by relevant bodies including government authorities, non-government actors, and business communities.

#### ***Literature review and secondary data***

We undertook literature scanning and review of relevant documents to formulate theoretical grounds and gather relevant information associated with the pandemic effects on economic segments. Issues related to pandemics historical backdrops, domestic and global scale effects of Covid-19, country best experiences, assorted policy measures and other pertinent information have been consolidated from various sources including the internet, ministerial and sectoral offices. Different institutions such as Ministry of Planning and Development, Ministry of Trade and Regional Integration, Ministry of Industry, Ministry of Agriculture, Ministry of Tourism, Ministry of Culture and Sport, Ministry of Transport and logistics, Ethiopian Maritime Authority, Ethiopian Airlines, relevant other sectoral offices, national and regional Chamber of Commerce and sectoral Associations, universities, professional associations, etc were contacted to access different information.

### ***In-depth interviews and Focus Group Discussions***

In-depth interviews were conducted mainly to gather qualitative data on impacts of the Covid-19 pandemic in general and the economic effects of the lung disease on the identified four sectors (Agriculture, Manufacturing, Tourism and Logistics/Transport) for scrutiny. Checklists were developed to help capture the relevant information from across different offices and in the target cities (mentioned above under literature review and secondary information). Focus group discussions (FGDs) also held with a selected mix of the business community and relevant government offices to assess the likely impact of Covid-19 pandemic on the Ethiopian economy in general and the identified study sectors in particular.

The issues raised for the interviews and FGDs are directly associated with the effect of the pandemic on economic performance, and notably on the impact of the four identified sectors.

### ***Sample Survey***

We surveyed 400 samples from across the four identified sectors (Agriculture, Manufacturing, Logistics/Transport and Tourism/hospitality) in five cities of Ethiopia, namely: Addis Ababa, Adama, Bahirdar, Dire Dawa and Hawassa. These cities represent major regions of the country with about 50% of the entire formal enterprises in the country, with different types, sizes and technological variations. Addis Ababa and its surrounding area specifically caters more than three-fifth of the entire large and medium scale manufacturing enterprises and head offices of almost all agriculture, service and industrial businesses in the country.

Both qualitative and quantitative types of data were gathered from representative business enterprises engaged in the identified sectors. Queries that help gauge the economic impacts of the pandemic are included in the survey questionnaire.

The survey technique was stratified random sampling which involves dividing the target population into homogeneous subgroups and then taking a simple random sample in each subgroup. And hence, after having our sampling frame for each of the identified sectors which represents the first strata, the firms were distributed into five cities at the second strata. Those identified sectors then be picked up proportionally (similar sampling fraction) using a simple random technique.

According to information from the Ministry of Trade, the numbers of active traders in the identified five cities i.e. Addis Ababa, Adama, Bahir Dar, Hawassa and Dire Dawa exceed 700,000

which is large<sup>4</sup> and hence fulfills the criteria for the applicability of sample size determining equation recommended by (Cochran, 1977) shown below.

$$n = \frac{z^2 \times \hat{p}(1-\hat{p})}{\epsilon^2}$$

Where:

- z is the z score
- ε is the margin of error
- n is population size
- ĥ is the population proportion

Using the equation and the associated assumptions, the study team computes that 384 samples to adequately represent the entire businesses in the five cities for the population of that size. We learned that the preponderance of the identified four sectors are in the transport-logistics sector (~61%), followed by tourism/hospitality (22%), manufacturing (16%) and agriculture (1%). We also noticed that the majority (~85%) registered capital less than 1.5 million ETB, meaning these are either micro or small scale enterprises. Considering these facts, the indicated total sample size were distributed to the identified five cities and type of business operations proportionally. We also identified specific sub-sectors from each major identified segments based on their dominant numbers.

Yet, some adjustments on sample size distribution made across the cities and specific sectors considering the assignment's core target reflected on the study's TOR (four sectors – namely tourism, agriculture, manufacturing and logistics given emphasize), the likely difference on the intensity of the pandemic's impact across sectors and also to avoid under representation of some sectors (such as agriculture). We therefore deliberately altered (increased/decreased) sample size of different sectors without compromising the total sample size. Adding a contingency of 15 samples, we finally reached and gathered information from 400 businesses across the country using kobo collect open data kit android platform in July, 2021. The following table summarizes the samples covered per city.

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<sup>4</sup> Empirical evidences show that the sample size doesn't change much for populations larger than 100,000.

Table 1: Sampled enterprises by sector, subsector and city

Sector & Subsector		City					Total
		Adama	Addis Ababa	Bahirda r	Dire Dawa	Hawassa	
Agriculture	Agro-processing	0	0	0	1	0	1
	Horticulture production	1	10	1	0	0	12
	Meat and milk production	1	9	0	1	2	13
	Cereal production	0	7	1	0	0	8
	Agricultural input sales	0	3	0	1	0	4
	Sub total	2	29	2	3	2	38
Logistics/Transport	Freight transport by container.	2	28	2	4	0	36
	Passenger transport (tour/ travel agency, Car rental, etc)	2	21	1	3	2	29
	Freight transport inland / Construction materials, cereals, etc/	0	24	0	0	2	26
	Taxis	4	46	2	4	1	57
	Lodging	0	0	0	0	1	1
	Hotels/Guesthouses/pensions)	0	1	0	0	0	1
	Travel and tourism (tour agency, travel agency, etc)	0	1	0	0	0	1
	Sub total	8	120	5	11	6	150
Manufacturing	Agro processing	1	6	1	1	3	12
	Textile and garment industry	1	16	2	2	1	22
	Leather and leather industry	0	9	0	3	2	14
	Metal, wood and engineering	2	16	1	2	1	22
	Chemical ,construction and input industry	1	12	0	2	0	15
	Meat and milk production	0	1	0	0	0	1
	Cereal production	0	1	0	0	0	1
	Sub total	5	61	4	10	7	87
Tourism/Hospitality	Taxis	0	2	0	0	0	2
	Food and beverage (Cafeteria, restaurants, fast food, etc)	3	23	2	3	2	33
	Recreation (theatres, movie halls, museums, sport centers, etc)	1	17	0	0	0	18
	Lodging (Hotels/ Guesthouses /pensions)	3	32	4	3	8	50
	Travel and tourism (tour agency, travel agency, etc)	1	17	2	2	0	22
	Sub total	8	91	8	8	10	125
<b>Total</b>		<b>23</b>	<b>301</b>	<b>19</b>	<b>32</b>	<b>25</b>	<b>400</b>

## 2.2. Data Analysis and Presentation

The information gathered from various primary and secondary sources was organized, analyzed, and presented using a variety of qualitative and quantitative data analysis tools and techniques. SPSS and Excel software applications were used to produce tables, graphs and charts, as well as different computations such as percentages, ratios and cross-tabulations. Comparisons were also made to examine the extent of Covid-19 economic impact on the identified sectors by making contrasts with other countries in developed and developing blocks. The study however highly relied in qualitative descriptions due to the nature of the data composed.

## CHAPTER THREE: REVIEW OF LITERATURE

With the intention to formulate a conceptual framework, to have a common understanding of some terminologies, and on some theoretical concepts to be used in this study this section has been developed. Owing to this, the Covid-19 pandemic and policy responses, Covid-19 and economic development nexus, and countries' reactions to the pandemic are discussed. Finally, using inputs from the above-mentioned discussions, a conceptual framework for this study has been developed.

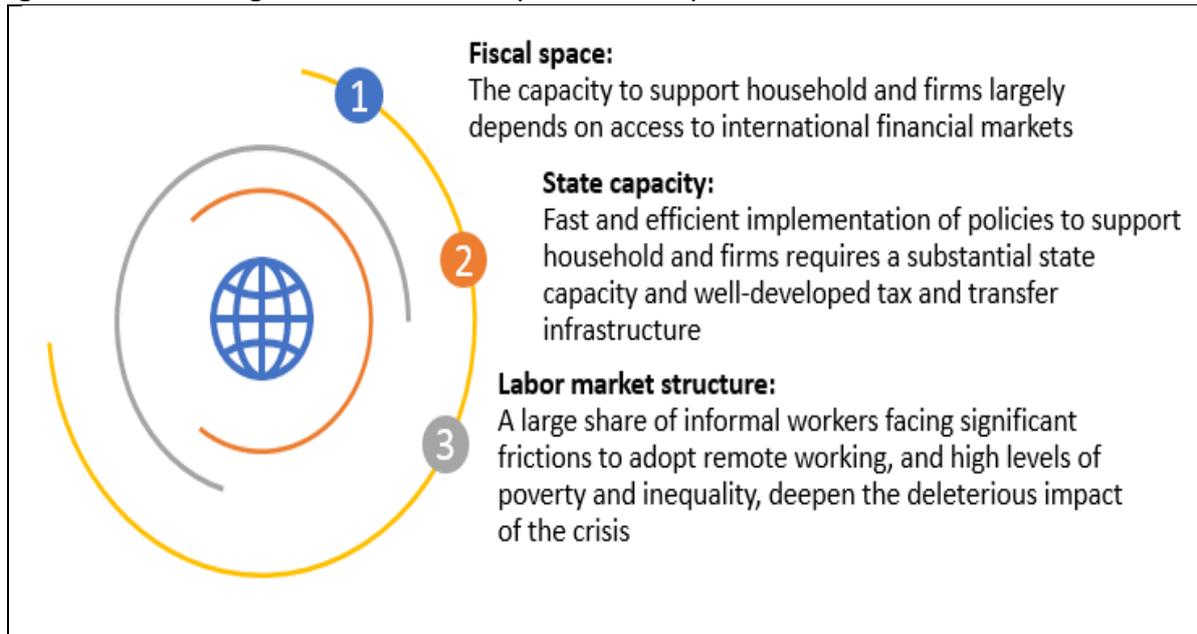
### 3.1. Covid-19 pandemic and policy responses

Irrefutably, due to the Covid-19 pandemic global connection has been disconnected. (Angaw, 2021) noted that worldwide versatility has been disconnected and de-globalization policy reactions followed. As per (Yeyati & Filippini, 2021) initially, the policy responses targeted two broad objectives. In the first place, to diminish the spread of the virus and strengthen the health systems. Second, support households and firms that faced sudden income/revenue losses due to supply and demand shortages, and the financial system to avert a spike in non-performing loans and defaults. Policymakers handled the former through quarantines, lockdowns, and social distancing and the later tackled through different fiscal, monetary, administrative, and regulatory measures.

As per (Díaz-bonilla, 2020) developing countries should start by implementing a national response plan focusing on these four interrelated spheres: health; the supply and demand of essential goods and services; the domestic financial circuit in local currency; and the foreign currency market, linked to international trade and external debt.

It is imperative to note that, some pre-conditions help to mitigate the economic costs of the pandemic. (Díaz-bonilla, 2020; Yeyati & Filippini, 2021) attested that at a global scale, the fiscal support reached nearly \$16 trillion (around 15 percent of global GDP) in 2020. However, the capacity of countries to implement such measures varied significantly. In this consideration, (Yeyati & Filippini, 2021) recognized three significant prior conditions that enhanced the effect of the shock:

Figure 5: Pre-existing conditions that amplified the impact of the Pandemic



Source: Adopted based on (Yeyati & Filippini, 2021)

As illustrated above the countries' prior conditions could determine how responsive measures taken and above all the effectiveness of the measures taken. Doubtlessly, therefore, developing countries have significantly been affected by the pandemic due to their existed poor fiscal and monetary policies implementations.

Relatedly, to support affected groups, policymakers require sufficient information (e.g. household composition, job status, income) and a reliable delivery framework to ensure that the support reaches the targeted population. This is particularly difficult for emerging and low-income countries with large informal sectors and therefore more limited sources of information on employment and labor income (OECD, 2020; Yeyati & Filippini, 2021).

In contrast, most developed countries have implemented massive economic responses to the Covid-19 pandemic, ramping up spending and using monetary policy to cushion the blow of lockdowns and other measures that have shut down businesses and left huge numbers unemployed (Díaz-bonilla, 2020). It is apparent that the already existed situation in developed countries could accelerate the fight against the pandemic.

Most often, monetary and fiscal policy refer to the two most widely recognized tools used to influence a nation's economic activity. The monetary policy addresses interest rates and the supply of money in circulation, and it is generally managed by a central bank. Whereas Fiscal policy addresses taxation and government spending, and it is generally determined by government legislation. The size, composition, and evolution of fiscal and monetary support have varied widely because of country circumstances (Yeyati & Filippini, 2021). Two stylized facts help to draw some intuition of the drivers behind this diversity. On average, countries

that deployed smaller fiscal packages have lower per capita income and have higher borrowing costs that limit their capacity for on-budget support (Díaz-bonilla, 2020).

(Brinca et al., 2020) argued that conventional monetary and fiscal policy can offset some types of aggregate demand shocks, but other policies may be more appropriate to counter supply shocks. Understanding whether supply or demand causes a particular shock is therefore very important for policy design.

It is imperative to note that both monetary and fiscal policy are macroeconomic tools used to manage or stimulate the economy. In the following table, a summary of key economic responses selected governments (both developed and developing) have been taking to limit the human and economic impact of the Covid-19 pandemic has been presented.

Table 2: A summary of macro-economic responses taken for Covid-19 pandemic

	Fiscal	Monetary	Exchange rate and balance of payments
Angola	<p>-About US\$40 million on additional health care spending was announced and about US\$80 million are being spent on 250 Cuban doctors who arrived in Angola to help.</p> <p>-Tax exemptions on humanitarian aid and donations and some delays on filing taxes for selected imports were granted.</p>	<p>-In March 2020, the central bank (BNA) reduced the rate on its 7-day permanent liquidity absorption facility and expanded its credit-stimulus program to selected sectors.</p> <p>-Increased the reserve requirement on banks' foreign exchange deposits.</p> <p>-The most impacted sectors by the pandemic (transport, tourism, and sports), a moratorium of up to 6 months for servicing debt granted</p>	<p>-The central bank introduced an electronic platform for foreign exchange transactions.</p>
Kenya	<p>-Initially earmarked Ksh40 billion (0.4 percent of GDP) for Covid-related</p>	<p>-The central bank has also encouraged banks to extend flexibility to borrowers' loan terms</p>	<p>No measures</p>

	<p>expenditure, including health sector (enhanced surveillance, laboratory services).</p> <p>-A package of tax measures has been adopted, including full income tax relief for persons earning below the equivalent of \$225 per month, reduction of the top pay-as you earn rate from 30 to 25 percent, reduction of the base corporate income tax rate from 30 to 25 percent, reduction of the turnover tax rate on small businesses from 3 to 1 percent, and a reduction of the standard VAT rate from 16 to 14 percent.</p>	<p>based on pandemic-related circumstances and encouraged the waiving or reducing of charges on mobile money transactions to disincentivize the use of cash.</p>	
Ghana	<p>-The government spent about 2.1 percent of GDP of which 0.3 percent of GDP for healthcare.</p> <p>-To meet its large financing needs, the government issued its first post Covid Eurobond of \$3 billion at an average rate of 8 percent in March.</p>	<p>-Lowering the primary reserve requirement from 10 to 8 percent, lowering the capital conservation buffer from 3 to 1.5 percent, revising provisioning and classification rules for specific loan categories, and steps to facilitate and lower the cost of mobile payments.</p>	No measures
Brazil	<p>-The expansion of health spending, temporary income support to vulnerable households</p>	<p>-The central bank also opened a facility to provide loans to financial institutions backed by private</p>	<p>-The central bank also resumed repo operations of Brazilian sovereign bonds denominated</p>

	<ul style="list-style-type: none"> <li>- Cash transfers to informal and low-income workers (Emergency Aid program)</li> <li>-Employment support program, and credit support to SMEs were renewed</li> <li>-Lower taxes and import levies on essential medical supplies, and new transfers from the federal to state governments to support higher health spending and as a cushion against the expected fall in revenues</li> </ul>	<ul style="list-style-type: none"> <li>corporate bonds as collateral, changed capital requirements for small financial institutions, and allowed banks to reduce provisions for contingent liabilities provided the funds are lent to SMEs.</li> <li>-The Fed has arranged to provide up to US\$60 billion to the central bank through a swap facility that remains in place.</li> </ul>	<ul style="list-style-type: none"> <li>in US dollars in 2020, having released US\$9 billion into the money market.</li> </ul>
Germany	<ul style="list-style-type: none"> <li>-The federal government has adopted three supplementary budgets: €156 billion (4.7 percent of GDP) in March 2020, €130 billion (3.9 percent of GDP) in June 2020, and €60 billion (1.7 percent of GDP) in March 2021.</li> <li>-the government extended the maximum duration of short-term work benefits from 12 to 24 months.</li> </ul>	<ul style="list-style-type: none"> <li>-Parliament passed a temporary suspension of the obligation for insolvency filing by over-indebted or illiquid firms.</li> </ul>	<ul style="list-style-type: none"> <li>-No measure</li> </ul>
Japan	<ul style="list-style-type: none"> <li>- On April 7 (partly revised on April 20), 2020, the Government of Japan adopted the Emergency Economic Package Against Covid-19 of ¥117.1 trillion</li> </ul>	<ul style="list-style-type: none"> <li>- The government expanded the volume of concessional loan facilities (interest-free without collateral) primarily for micro, small and medium-</li> </ul>	<ul style="list-style-type: none"> <li>- The exchange rate has been allowed to adjust flexibly.</li> </ul>

	(20.9 percent of 2019 GDP)	sized businesses affected by Covid-19 through the Japan Finance Corporation and other institutions-	
Ethiopia	Ethiopia initially announced a Br 300 million package to bolster healthcare spending in early March. On March 23, 2020, the Prime Minister announced the aid package would be increased to Br 5 billion (US\$154 million or 0.15 percent of GDP) but details on the precise modalities of the assistance were not made available. On 3 April, 2020 the Prime Minister's office announced a Covid-19 Multi-Sectoral Preparedness and Response Plan, with prospective costing of interventions. The plan was meant to be implemented over the following months and estimated to require USD 1.64 billion in funding (about 1.6% GDP).	-The central bank has provided 15 billion birr (0.45 percent of GDP) of additional liquidity to private banks to facilitate debt restructuring and prevent bankruptcies. It has also provided the Commercial Bank of Ethiopia (CBE) with an ETB 16 billion 3-year liquidity line and has injected liquidity into hotel and tourism sectors through commercial banks.	-No measure

Source: Based on (IMF, 2021) and (OECD, 2020).

In addition to monetary and fiscal policies responses, it has been suggested some related policies measures to help mitigate the adverse impacts of Covid-19 on firms. A case in point (BSI, 2014; Díaz-bonilla, 2020), suggests policy response options divided into four areas: access to finance, firm capabilities, access to new markets, and reducing uncertainty. On top

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of this advanced technology is required to implement all the policy options. As per (UNDP, 2018), many good solutions require extensive investments in technology.

Response policy options may target specific sectors. In this regard, countries have been seen taking a multitude of actions to particularly rescue the worst-hit sectors by the pandemic such as the manufacturing and tourism. The ensuing table briefs experiences of selected three countries (Taiwan, UAE and Singapore) which took novel measures to revive their travel and tourism industry from the pandemic’s effect. These are the countries that also stayed on top of the charts when it comes to controlling the spread of Covid-19.

Table 3: Selected countries experiences towards rescuing the tourism industry

Country	Source	Experience/Measure
Taiwan	C&IT (2020)	World, Like any other country Taiwan’s tourism industry was affected by the appearance of Covid-19. However, in June of 2020, while many other countries were still on lockdown, Taiwan was already on the move to revitalize its Meetings, Incentives, Conferences & Exhibitions (MICE) industry. Thus, Taiwanese government hosted the MICE restart press conference announcing the reopening of the domestic MICE sector with new public health regulations and policies for venues.  This helped supercharge the sector and within the next 2 months, 50 international events were organized that span across industries such as beverages, baking, outdoor sports, video games and so on.  As of late 2020, Taiwan has been ready to host international events with participants from low and medium risk Covid-19 countries. Taiwan's MICE Promotion Program, MEET TAIWAN, has played an active role in coordinating with hotels and travel agencies and event planners to explore new post-pandemic business opportunities.  The International Congress and Convention Association (ICCA) hosted its first hybrid conference with both live and online participants all over the world, with expectation that hybrid events will become the new normal, even after the pandemic.
UAE	Aburumman, (2020) and	The UAE MICE industry one of the leading and most robust in the world before the Covid-19 appeared, with up to 11.5%

Country	Source	Experience/Measure
	Bloomberg (2021)	<p>GDP contribution and 2.3 million business visitors to the country in 2019. With Covid-19 emergence, severe quarantine measures and travel restrictions were introduced all over the world. Hence, the UAE MICE industry was heavily impacted by the pandemic.</p> <p>According to Bloomberg (2021), the UAE is one of the top countries that was able to control the spread of Covid-19. And with more than 56% of its population vaccinated it is only second to Israel. Furthermore, in a recent survey of 4,000 professionals across 130 countries conducted by Messe Frankfurt<sup>5</sup>, Dubai was rated the safest location to host international events in the coming months.</p> <p>Local events have been underway since July 2020, international events however are still slow because of travel restrictions in other countries even though the UAE is open for business. To further facilitate travel into UAE and bypass the tedious 14 day quarantine period, both Emirates and Etihad are planning on launching the International Air Transport Association (IATA) travel pass which allows the passengers to use a digital passport that allows countries to verify a traveler's pre-travel test or whether vaccination meets the requirements of the destination. They will be able to share the test and vaccination certificates with authorities and airlines to facilitate travel.</p>
Singapore	Singaporean Ministry of Communications and Information (2020)	<p>Singapore's efforts to control the pandemic had taken a serious toll on the tourism sector at the beginning. The Singaporean tourism sector employs over 34,000 people and caters to a diverse international audience. The cancellation of many events due to the pandemic has pushed hotels and event organizers to reimagine their usual way of conducting events and even rethink their business model.</p> <p>According to the Singaporean Ministry of Communications and Information (2020), Singapore's first attempts at utilizing virtual means to conduct events proved difficult</p>

<sup>5</sup> *Messe Frankfurt is the world's largest trade fair, congress and event organiser with its own exhibition ground.*  
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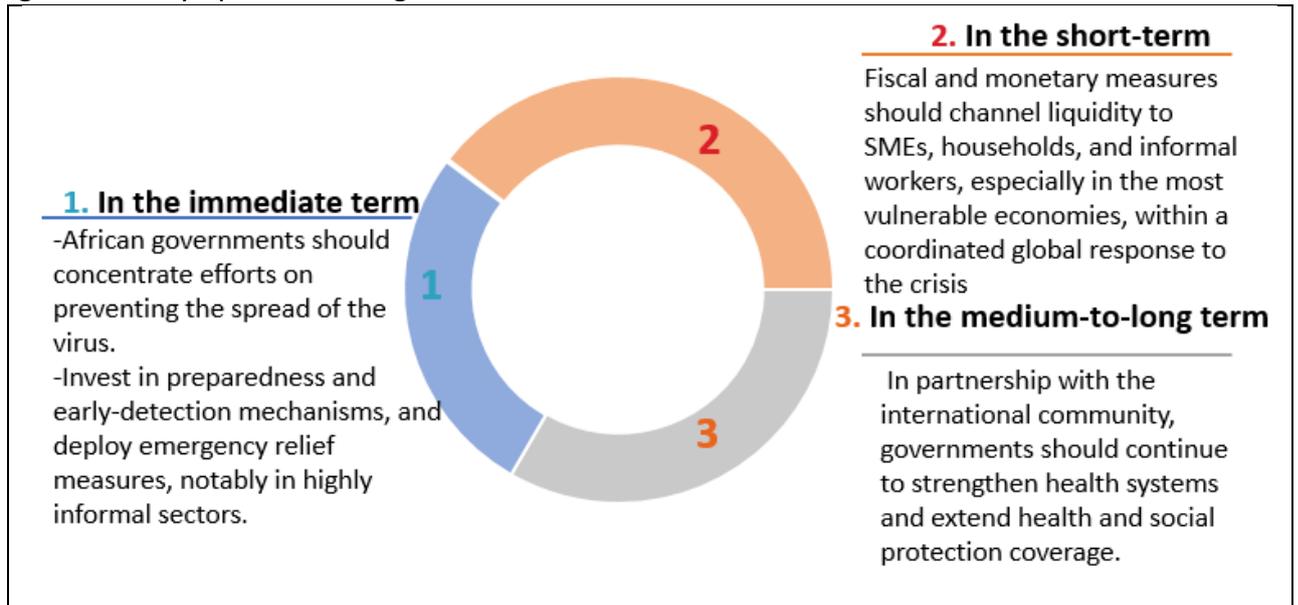
Country	Source	Experience/Measure
		<p>because of many people’s lack of familiarity with the tools. Realizing the need to swiftly adapt, people working in the industry were made to familiarize themselves with new virtual tools by participating in virtual product demonstrations.</p> <p>This combined with Robust Safe Management Measures (SMM) devised by the Singapore Tourism Board (STB), which hotels and event organizers are expected to strictly implement and enforce, the country moved onto conducting hybrid events. Some of the measures the Singaporean government has taken include:</p> <ul style="list-style-type: none"> <li>• Pre and post infection control measures, e.g. all attendees to use Trace Together</li> <li>• Controlled density of attendees</li> <li>• Limited opportunities for close contact between individuals</li> </ul>

Source: (C&IT World, 2020)

In general, the policy response to Covid-19 needs to distinguish between two distinct but overlapping phases: response (or management of immediate health and economic shocks) and recovery. The response needs to focus on the obvious and immediate priority to save lives and livelihoods. Its duration can vary but anywhere between the first 3-6 months from the outbreak of the pandemic is a reasonable assumption. Recovery is essentially about a return to trends as quickly as possible but doing so smartly, taking advantage of large-scale policy measures to tackle systemic risks and development shortfalls exposed by the pandemic rather than simply return to business-as-usual. A shift towards recovery can begin 3 months into the pandemic and could last anywhere between 12-18 months from the outbreak of the pandemic (UN, 2020). The same study further argued that, in terms of the policy implications of the pandemic, that response and recovery and the humanitarian, health, and socio-economic dimensions of the crisis need to be thought through and addressed integrally, as none can be tackled effectively on their own without taking action on the other(s), recognizing the inter-dependencies between them.

The following chart summarizes policy options recommended by (OECD, 2020) to face the Covid-19 crisis in Africa.

Figure 6: Policy options to mitigate Covid-19 crisis in Africa



Source: Prepared based on (OECD, 2020)

As indicated above, it is not uncommon that the first and most important measure ought to be focusing on preventing the pandemic and saving lives. Yet, following the immediate term other policy measures have been required so that the economy could recover.

On top of this, (OECD, 2020) policy measures will continue to evolve as economies enter the successive phases of crisis-response: surviving the epidemic (ensure adequate resources go to basic needs such as medicine and food, and ensure people’s physical and mental health, as well as safety); getting back to normal (support individuals and firms to resume their activities and repair the damage sustained during the pandemic), and re-focusing on the long term (shift resources and attention to long-term development). (UNDP, 2018) affirmed that preparedness and prompt responses can be additionally enhanced through drills and training, or by producing checklists of actions to undertake in certain situations. Direct campaigns to raise risk perception are also an example of how to increase awareness. Response capability also needs to take into consideration the fact that all people should receive the same protection.

Doubtlessly, these historically unprecedented times require unconventional responses. Yet, there should be measures to avoid any form of policy response abuses. A case in point, (Díaz-bonilla, 2020) there have been several countries that in the past have abused “unconventional monetary approaches,” leading to high bouts of inflation, strong devaluations, the balance of payment crises, and corruption. More specifically, as mentioned before, developing countries are set up susceptible for such abuses so that unlike before strong governments' commitment and enforcement are necessary conditions for successful policies responses.

In a nutshell, as it has been mentioned above, the post-Covid-19 period would push companies, governments, and other actors in the economy to shift production and supply chain systems more sustainably. To this end, it is required to formulate adequate institutional and operational policies for overcoming the production losses and improving the consumption pattern, which would further boost the economy (Díaz-bonilla, 2020; Kumar et al., 2020; OECD, 2020).

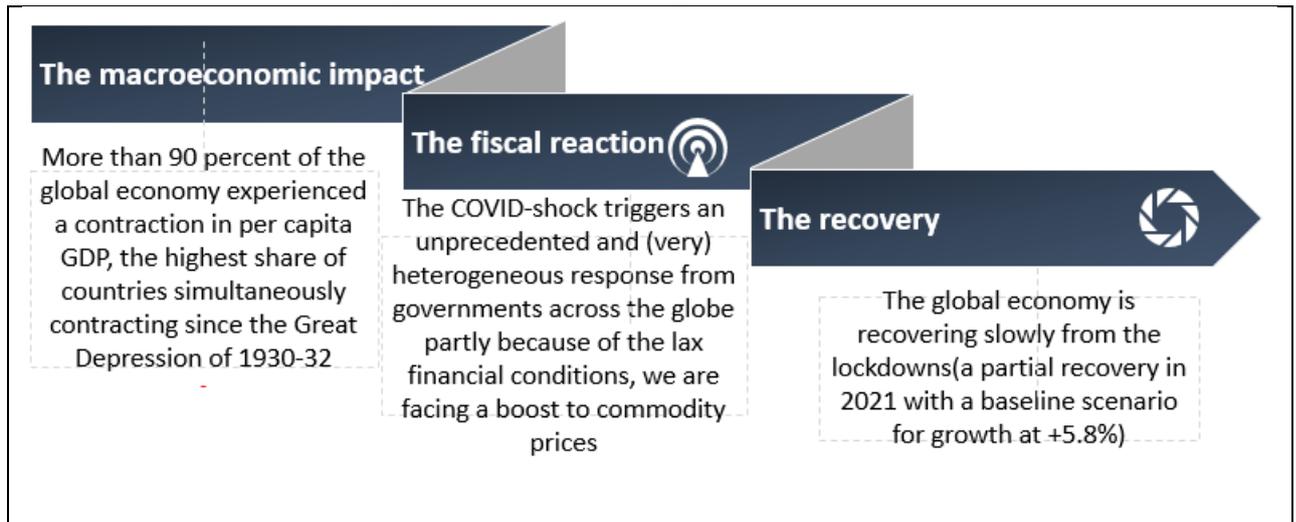
### **3.2. Covid-19 pandemic and economic development nexus**

Surprisingly enough, the Covid-19 global recession is the deepest since the end of World War II. (Díaz-bonilla, 2020; IMF, 2021; Yeyati & Filippini, 2021), noted that the global economy contracted by 3.5 percent in 2020 and, a 7 percent loss relative to the 3.4 percent growth forecast back in October 2019.

The negative impact of Covid-19 on economic development has been observed, albeit, the density of the impact has varied across sectors, sub-sectors, business types, and firm size. A case in point (UNIDO, 2020) study in Pakistan attested that, at the highest level of segregation, the numbers show that agriculture was the least impacted with losses in revenue of between 10 percent and 15 percent; manufacturing lost revenue anywhere between 30 percent and 50 percent and services lost between 50 percent and 70 percent in revenues compared to previous years. (IMF, 2021) study report noted that while virtually every country covered by the IMF posted negative growth in 2020, the downturn was more pronounced in the poorest parts of the world. The same study survey report affirmed that 90 percent of all firms reported a negative impact on revenue due to Covid-19, while only 2 percent reported an increase. (World Bank, 2021) study report in Kenya pointed out that more than 9 out of 10 firms have experienced a decline in sales as a consequence of the pandemic. Sales dropped by around 50 percent in the average and median Kenyan firms, and by more than 70 percent for a quarter of the firms. Besides, one in five workers has lost their jobs after the start of the pandemic. Likewise (World Bank, 2021) in Kenya ninety-three percent of firms report a reduction of sales in the last 30 days compared to the same period in 2019, while only 2 percent report an increase. More than 20 percent of businesses in Kenya have fired workers.

(Yeyati & Filippini, 2021) summarized the cost of the Covid-19 pandemic into three stages; macroeconomic impact, the fiscal impact, and the recovery.

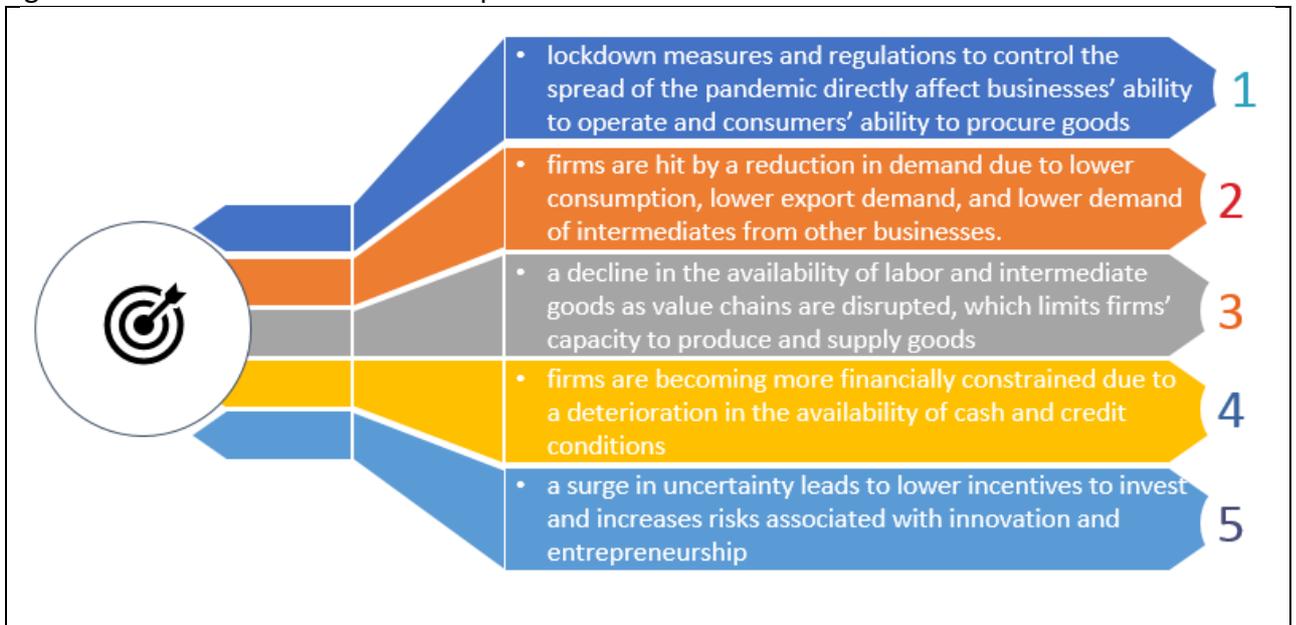
Figure 7: The cost of Covid-19 pandemic in three stages



Source: Prepared based on (Yeyati & Filippini, 2021)

Nearly two-thirds of African countries are net importers of basic food, and crisis-induced shortages could severely impact its availability (OECD, 2020). Incontestably, the emerging infectious diseases (EIDs) such as Ebola, influenza, SARS, MERS, and most recently, Coronavirus (Covid-2019) cause enormous disruption in goods production, people's life, transportation, and stimulate civil unrest (Kumar et al., 2020). As per (World Bank, 2021), the Covid-19 shocks affect businesses through five distinct channels.

Figure 8: Five channels the Covid-19 pandemic affect business



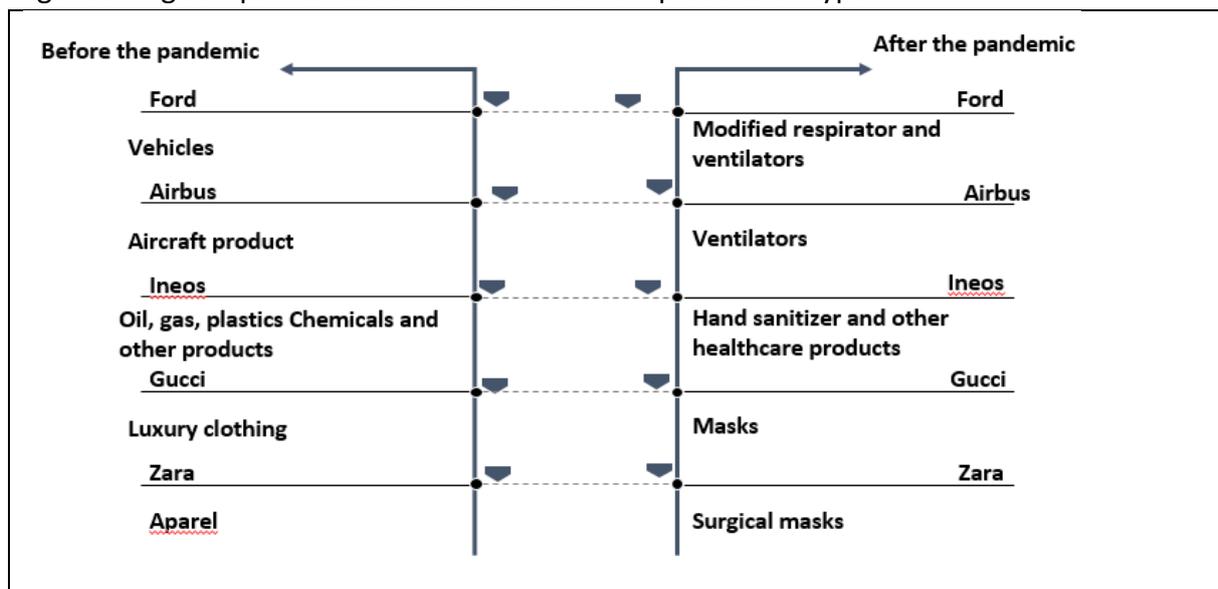
Source: Prepared based on (World Bank, 2021)

(Yeyati & Filippini, 2021) noted that, the shock propagated through three key channels. First, disruption of global value chains. Second, restrictions to international mobility, which affected economies and activities differently, depending on their exposure and preparedness; and. Third, a reduction in cross-country remittances.

As per (OECD, 2020) Africa is confronted with a double supply and demand shock arriving in three successive waves. A first wave comes from China through weakened trade channels and lowers foreign direct investment (FDI) in the immediate term. A second wave will arrive from OECD countries, due to the EU demand slump associated with the lockdown and the halt in tourism. Finally, a third wave could come from the shock on internal demand and the slowdown of intra- African trade.

It is imperative to note here is that the factories have been closed to mitigate the infection spread, albeit, some industries and companies have been indulged in producing products that are required for the health care system by following strict social distancing. As (Madurai Elavarasan & Pugazhendhi, 2020) listed down some big industries in the world change that have been changed their production domain into other Covid related materials.

Figure 9: Big companies reaction to their domain production type



Source Prepared based on (Madurai Elavarasan & Pugazhendhi, 2020)

Above all, the spread of Covid-19 has already been disrupted supply chains globally in several ways. (Kumar et al., 2020) has mentioned some of them:

- ✓ Weakening demand for several types of products (Automobile products, public transport, and textile products)
- ✓ Skyrocketing demand for selected companies or their product (thermal scanners, ventilators, facemasks, sanitizers, PPE, and essential food items)
- ✓ Failure of supplies and uncertainty in raw material supply

- ✓ Impacting ability to ship and receive products on time due to shortages and logistics bottlenecks
- ✓ Ensuring workforce capacity to assemble and ship products

Generally, the Covid-19 has been affecting the economy in various ways and its impact would continue till the economy recovered.

### **3.3. Covid-19 influence on transport systems disruptions**

There is no doubt that transportation industry and systems are an engine of modern life. We can't imagine living without using cars and trucks, ships, trains, airplanes and all other means of transport in this modern era. Millions of people and billions tons of goods haul from place to place across the globe and it's the transport industry that sustains this bloodline. With the emergence of Covid-19, this modern life artery has become the subject of the pandemic's threat. Countries take variegated measures to limit the spread of the virus-like border closures, movement restrictions, quarantine requirements, social distancing, etc. This in turn has dramatically restricted goods and people movement which substantially affected the economy as a whole and supply chains bringing in a diverse set of domino effects in almost all economic sectors and systems (Loske, 2020). Yet, with Covid-19, operations and continuity of the logistics services have become more than a necessity to ensure the provision of essential goods including food stocks, medical supplies, and consumption items (Rivera, 2020). In view of that, the following sub-sections discuss experiences and the likely effects of the Covid-19 pandemic on the logistics and transport networks that cover the trucking, air, rail, and maritime industries from across the globe.

#### **3.3.1. Covid-19 Impact on Transportation and Logistics**

The Covid-19 pandemic poses a great challenge for contemporary public transportation worldwide, resulting from an unprecedented decline in demand and revenue. The logistics activities have been suspended due to lockdowns, and it has affected the supply of various products as a result of restrictions imposed on shopkeepers and retailers.

The economic and social effects of the Covid-19 outbreak in public transportation extend beyond service performance and health risks to financial viability, social equity, and sustainable mobility. Covid-19 virus outbreak has not only taken lives but has also been severely destructing the economy. The road transportation, airline industry, railways and also the energy sector which provides fuel to all of them are hit very hard by the Covid-19 pandemic. The countries which face a huge impact has been changing from China to European countries and finally over to the USA.

One of the key reasons for the hit was stay-at-home orders and guidelines implemented by the government and health organizations which greatly reduced the travel demand. Within a few weeks of the pandemic, most of the countries worked towards limiting international

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travel. Public transport has been critically altered in most of the largest cities. Metro and Bus ridership has plunged to 50-90% worldwide. After the cities come out of quarantines and lockdowns, providing sufficient capacity and ensuring the safety of passengers who rely on metro, buses, trams, and light rails is a daunting task. The Transportation sector throughout the world has responded in numerous ways in the current pandemic. As also mentioned elsewhere in this paper, few car companies such as the Ford have stopped the production of cars and have started the production of respirators and ventilators, medical personals being given support by aircraft crew who receive first-responder training, free transport services to medical staff, and delivering food to affected citizens by taxis and ride-sharing agencies (Kim, 2020).

Many countries restricted the entry of non-citizens in an attempt at controlling the spread of Covid-19. By April 2020 this number was as high as 91% of the Global population living in countries that restricted foreign entry (McKinsey Insights, 2020). This impact on everyday life was seen all over the world. Businesses stood in uncharted waters, lacking a clear-cut idea of what the future might bring to them. The same principles followed through for the aviation industry. The aviation industry is the greatest means for today's globalization (Tay et al., 2020). But as the world moved towards a retraction from global connections during this pandemic, the aviation industry took a very large toll. This becomes widely evident through the study of the compound annual growth rate in the United States which skyrocketed between 2009 to 2017 by a whopping 754 billion US dollars, but in 2020 faced a serious threat of losses up to 314 billion US dollars primarily due to the pandemic depleting the industry (Mazareanu, 2020a).

Since the beginning of 2020, more and more countries across the globe shut down their borders and limited transportation and travel to contain the coronavirus (Covid-19) outbreak, thus, creating impediments for international trade and transportation. The pandemic affects almost every dimension of economic activity and individuals globally. As a consequence of the coronavirus outbreak, important supply chains in the logistics and transportation industry are hampered, though differently across air, freight and sea sectors.

The global logistics market (transport, inventory management, warehousing, order processing, and other supply chain activities) accounts for roughly 12 percent of global GDP. The spread of the virus is revealing the vulnerability of the global supply chain for goods. There is significant disruption in the supply chain and demand is fast outpacing supply capacity. For example, there have been spikes in demand for food and some essential non-food items (especially medical supplies). Food supply chains could collapse due to the lack of transport to take products from farm to table. Food continues to be produced in the short term, but might not be delivered on time, particularly to urban dwellers. At the same time, the demand for some health supplies is already overpassing the available supply.

The restriction due to Covid impacted the public transport; the responses to Covid-19, from implementing social distancing to lockdown policies in metropolitan areas has been expected (and actually witnessed too) to have a very large impact on passenger transport services and particularly mass transit systems which are designed to move a large number of people in dense urban areas. In developing countries, public transport is largely informal and privately owned. Taxi and bus owners and drivers earn income only if they carry passengers. These groups are, therefore, very vulnerable. The public transport system especially, as it tends to serve the poor and disadvantaged populations, it is expected to be under additional financial stress from reduced revenues.

The pandemic has changed not only the lives of many people, but also the situation in global and local markets. A significant reduction in production capacity due to the closure of borders between countries and the introduction of a self-isolation regime has occurred all over the world. The coronavirus pandemic has disrupted the usual links between manufacturers and consumers around the world and has brought major changes to the business of logistics companies. The spread of the coronavirus has dealt a serious blow to the global logistics and supply chain of raw materials and finished products.

The crisis caused an imbalance in cargo flows associated with changes in demand, the suspension of production and the restrictions imposed. Major global logistics trends are:

- Reduction of cargo traffic on a global and local scale. The reasons are obvious: the closure of the borders between countries, the mass closure of retail outlets, currency exchange rate growth, the isolation of the population, the decline in demand and purchasing power, as well as the state of fear and uncertainty among consumers.
- The lack of simple, clear rules of the game in the conditions of quarantine for representatives of the logistics market. The pandemic has significantly affected the logistics industry: demand, sustainability, transportation and warehousing, and working conditions. In China, all types of transportation were affected: air, sea, rail, and road. The usual multimodal schemes were destroyed. Logistics companies had to urgently look for an alternative to the «broken» links. Due to logistics problems, the most affected party could be the automotive industry, where the supply chain between auto parts production sites and assembly plants was threatened.

### 3.3.2. Impact of Covid-19 on Ocean freight

The businesses can use different means of transportation in different countries to carry out the operations based on logistics and supply chain management based on (Tardivo et al., 2020) assessment. Rewari et al. (2020) highlighted that the connectivity between different businesses and the trade routes can only be developed with better transportation arrangements and creating the activities that can be effective for carrying out the trade in the countries. As referred to in the study of Thuy et al. (2020), the different means of

transportation can be used by businesses to create growth opportunities and create measures for better trade and portability in the countries. It has been observed that one of the major routes that are generally used for transportation is the ocean routes that the firms can use in different countries for dealing with the supply chain activities based on the assessment of Gray (2020). It has also been discussed that there have been different changes related to ocean freight worldwide due to the Covid-19 pandemic that has created constraints for the countries for carrying out the means of transportation (Yazir et al., 2020).

The restrictions on the ports and borders have created issues for the businesses to supply the material and other different products to be transported through the sea routes based on the assessment of Klatman et al. (2020). Global shipping has been drastically affected when it comes to the sea routes and other waterways for traveling and moving goods to other counties, according to the arguments of Kwon (2020). The staff working as crew for the waterways is also less as the issue of health and other common accidents currently faced in this situation of Covid-19 pandemic (Ivanov & Das, 2020). Similarly, the regulations in the countries have also reduced the number of goods traveled and have also increased the cost and duty over the products due to increased safety of the products as elaborated by Tardivo et al. (2020). Hence, all these issues have created a challenge for the ocean freight to carry out in this pandemic.

### **3.3.3. The effects of Covid-19 on land freight**

Land transport includes all the means of transportation on land by the railways or roadways. One of the major challenges faced by land freight is increased manufactured goods that have created challenges for the land travelers for dealing with freight issues (Jain and Sharma, 2020). It has been observed that the capacity for ocean transport has decreased, which has also increased the pressure on the land freight and badly affected the timely services for logistics and transportation (Siddique et al., 2021). The significance of the Covid-19 pandemic has created a major shift from physical buying to online buying that is also one of the significant challenges in creating the increased pressure on the land freight (Benmarhnia, 2020).

The research conducted by Gordon et al. (2021) highlighted that the traveling of goods has been increasing through the land ways in the city and the country that has also reduced the capability of the land routes to carry out the operations in terms of international delivery and transports. Lynch and Goring (2020) emphasized the crisis that requires a re-evaluation of supply chain management. This disruption is due to shuttered production and decreasing sales in the countries (Wu et al., 2020).

### 3.3.4. Covid-19 Versus air transport

Air transport is among the key and efficient means for moving people and hauling goods across the globe. Erkhembayar et al. (2020) highlighted that air transport has faced a huge negative impact due to the Covid-19 pandemic and has created challenges for travelers and moving goods from different locations. As per Ali and Raja (2020), air transport has faced challenges due to Covid-19 pandemic because of increased regulation and restrictions in the markets and airlines. Governments have been imposing regulations for enhancing safety and creating the safest measures for traveling across countries with the help of air freight and airlines (Cavaglià et al., 2020). The pandemic has also substantially impacted the passengers travel segment (Gkiotsalitis & Cats, 2020). There are challenges in addressing the aviation staffing requirements and organizing the means of efficiency and effectiveness (Ali and Raja, 2020). These challenges have created problems for the safety measures and have been affecting the means of transportation in countries (Hagman, 2020).

### 3.4. Crises management: Theoretical discourse

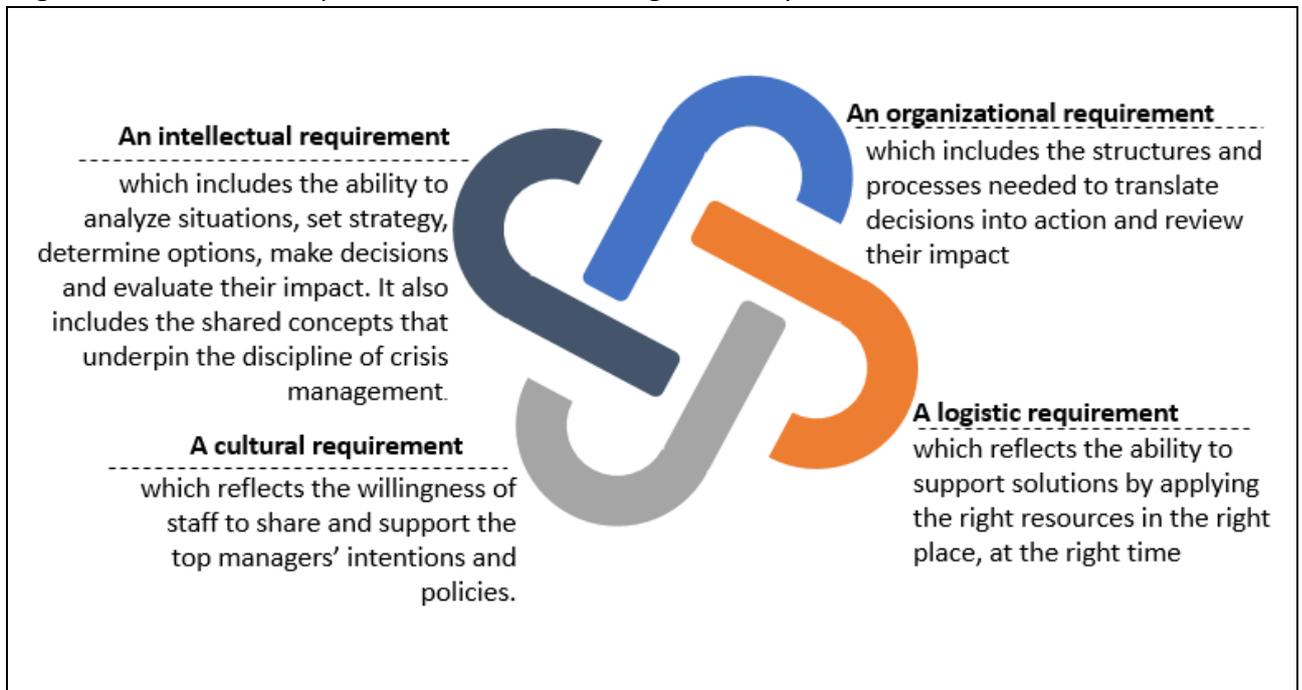
“Judgment and intuition play a vital role in crisis decision making. Effectiveness depends upon the decision maker’s experience in the domain, the time constraints, and on the decision maker’s task expertise. Relying on intuition in decision-making is juxtaposed with the analytical processes that are powered by algorithms and data. Intuitive decision making often is viewed as more natural and maybe given more credence than it deserves, and decisions that turn out right often do so more by chance than by intention”(Engemann, 2018, p. 4).

Some crises are inevitable no matter how well prepared a government and firm are. Crisis Management (CM) is still new, and as a result, it is neither well understood nor widely accepted. This is not to say that more advanced and developed CM programs could prevent all organizational crises from occurring. Indeed, complete prevention is not necessarily the goal of CM. However, there is evidence that effective CM would allow organizations to recover much faster and learn from major crises more effectively (Mitroff, 1994). The crisis affects the functioning of companies that carry out crisis management. Crisis management is the process by which an organization deals with a disruptive and unexpected event that threatens to harm the organization or its stakeholders (Gajdzik & Wolniak, 2021). (Engemann, 2018) Risk management encompasses assessing risks, appraising alternatives, and applying solutions. An effective risk management program is essential for a business to enjoy security from crises.

As per (BSI, 2014) defines a crisis is an “inherently abnormal, unstable and complex situation that represents a threat to the strategic objectives, reputation or existence of an organization. Similarly, the crisis management plan is not a guide as to what to do next in a given situation” but rather a framework in which good decisions can be taken. (UNDP, 2018) factors such as

historical, political, or cultural context will affect how a solution will and can be implemented for each location, making it hard to dictate a standardized solution.

Figure 10: Four basic requirements of crisis management capabilities



Source: Prepared based on (BSI, 2014)

Four primary dimensions emerge repeatedly in the cause, treatment, and prevention of most major crises, or potential crises. These four major dimensions-Types, Phases, Systems, and Stakeholders-specify more precisely the difference between Crisis-Prepared and Crisis-Prone organizations. Crisis-Prepared organizations do well in every one of these dimensions and do so in an integrated manner. On the other hand, Crisis-Prone organizations either do poorly on all these dimensions or merely do well on one or two of them to the exclusion of the others (Mitroff, 1994).

Table 4: Four Primary dimensions

Category	Definitions	Importance	Remark
1)The Types dimension	The underlying order or structure to different kinds of crises can then be grouped into various clusters or "families."	-Although every crisis possesses distinct and unique features, there is an underlying order and logic that can guide organizations regarding the various types of crises they should prepare for.	- Since no crisis ever happens exactly as it is represented in crisis plans, the "true" purpose of crisis planning is to "think about the unthinkable"

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Category	Definitions	Importance	Remark
		<ul style="list-style-type: none"> <li>- The "best prepared" organizations follow a deliberate strategy of preparing for at least one type of crisis in each of the various classes</li> <li>- The reasoning is that "while it may be virtually impossible to prepare for every conceivable kind of crisis, it is not impossible to prepare for at least one type in each of the various groups;</li> <li>- virtually no crisis ever happens in isolation. If handled improperly, every crisis can set off a chain reaction of other crises</li> </ul>	prior to its occurrence
2)The Phases dimension	- The process of identifying the different phases of the crisis.	- virtually all crises send out early warning signals. If these signals are picked up and acted upon, then many crises can be prevented before they occur.	
A) Damage Containment	Damage Containment's purpose is to contain the effects of a crisis from spreading further and, hence, from infecting other uncontaminated parts of an organization or the environment	- Even with the best of preparations, crises are inevitable because of the complexity of systems and the impossibility of perfect control	
B) Recovery	- to recover normal business operations as soon	- necessitates the prioritization and the backing up of key	

Category	Definitions	Importance	Remark
	as possible so that key customers will not be lost	aspects of production and distribution such as worksites and computers	
C) Learning	to learn what was done well and what was done poorly so that the organization can handle crises better in the future		
3) The Systems dimension	The process of understanding of the broader system, actions intended to prevent or respond to one crisis can set off a chain reaction of other crises	- the value or desirability of an action cannot be judged in isolation from its effects on the whole system of which it is an integral part.	
4) the Stakeholders dimension	- the large and complex number of individuals, interest groups, and institutions that are typically involved in any major crisis. These range from consumers, competitors, suppliers, insurance companies, and the media to government regulatory and law enforcement agencies	- The failure of many organizations to consider how a broad range of Stakeholders will react to their actions, beliefs, and performance is often responsible for their getting into a major crisis	

Source adapted from (Mitroff, 1994)

(Engemann, 2018) an important principle of risk management is that while risks cannot be eliminated, they can be controlled, thus organizations benefit from effective crisis management that should cover their entire enterprise.

The crisis threatens especially the segment of the population which is more vulnerable, largely because they are both highly sensitive to hazards and have limited capacities to cope with the resulting impacts (UNDP, 2018). Governments have been trying to reduce the impact of unprecedented both natural and manmade crises by employing early systems.

As per the (UNDP, 2018) study report, Early Warning Systems (EWS) are complex processes aimed at reducing the impact of natural hazards by systematically providing timely and relevant information. If effectively implemented, EWS can contribute to increasing the

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resilience of developing countries to natural disasters and climate-related risks, and offer simultaneous support for the achievement of the Sustainable Development Goals (SDGs) in reducing the loss of life and livelihood. Yet, households, firms, or governments have often been not successful in reducing impact partly due to some wrong assumptions they have for the early warning.

Figure 11: Some wrong assumptions about early warning and stereotypes



Source: Prepared based on (Gajdzik & Wolniak, 2021; Mitroff, 1994)

Undoubtedly, all the above-mentioned have so far been contributed to lack of proper response to Covid-19. As per (Gajdzik & Wolniak, 2021) many people first tried to deny the Covid-19 pandemic as a whole. Next, they underestimated the possibility of widespread of it. On top of this, when the authorities and organizations realized that the Covid-19 pandemic was real, they tried to deny the possible effects—mortality, and the potential business effects of a pandemic. They thought that it could have a small and short-lasting effect.

Early Warning Systems (EWS) are often based on interconnections between visual observations, experience, and cooperation to mitigate losses from upcoming hazards. Early warning strategies are the set of measures taken to increase resilience that is not subsumed

within risk-reducing initiatives such as urban design features or green infrastructure (UNDP, 2018).

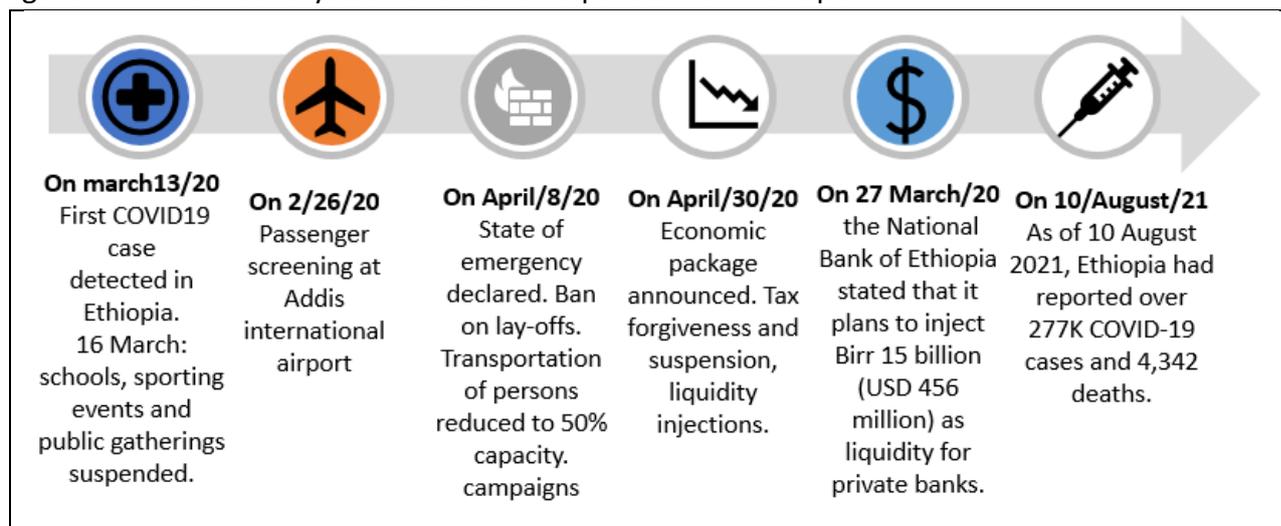
All in all, the crisis-management office must establish committees with the private sector and operators in key areas to monitor daily the flow of crucial goods and services, and the health of workers and critical personnel. Bottlenecks, as well as hoarding and unfair trade practices, must be monitored and energetically addressed (Díaz-bonilla, 2020).

### **3.5. An overview of Covid-19 in Ethiopia**

The Covid-19 (coronavirus) pandemic has reshaped the global economy and daily lives of people across the entire world. Notwithstanding, some (A. Geda, 2020; Tekleselassie, 2021) argued that countries in Africa in general and Ethiopia, in particular, have not significantly been affected as seriously as some of the countries in Europe in terms of cases and deaths. Yet, the coronavirus outbreak is causing widespread concern and economic hardship for consumers, businesses, and communities across the globe in general and in Ethiopia in particular. (PDC, 2020) attest that the effect of Covid on the Ethiopian economy partly depends on the structure of the economy. The service sector is the leading sector in terms of GDP contribution and employment creation in Ethiopia.

As the situation is fast-moving, with widespread impacts, several studies (Alemu; A. Geda, 2020; Goshu, Ferede, et al., 2020; Goshu, Ketema, et al., 2020; JCCE, 2020b; PDC, 2020; Tekleselassie, 2021) have been conducted regarding Covid-19 pandemic interrelated impacts on the economy in general and socio-economy status of households. In this section, therefore, some of these empirical findings have been presented. Doubtlessly, globally in general, and in Ethiopia in particular, the Covid-19 pandemic has been ushering in a host of challenges on the economy. Covid-19 Pandemic has arrived in Ethiopia on March 13, 2020 (the first case notified officially by the Ministry of Health). Since then, several policy responses have been employed to mitigate the impact of the pandemic. Some of the measures taken by the pandemic after the first Covid case was announced are presented below:

Figure 12: Timeline analysis on the Covid-19 pandemic in Ethiopia



Source: Prepared based on data (Alemu; Angaw, 2021; A. Geda, 2020; Goshu, Ferede, et al., 2020; Goshu, Ketema, et al., 2020; JCCE, 2020b; UN, 2020; UNIDO, 2020; WB, 2020b)

It is difficult to quantify all necessary macro-economic variables and determine the change that has been occurring after the Covid-19 prevalence, due to the following interrelated reasons. First, still, the effect of Covid has been ongoing. Second, somehow it is difficult to separate the other variables' effects and see the mere effect of Covid-19 on the economy. Third, to see macroeconomic performances of Covid-19 impact the period of time too short and some macrolevel data unavailable. Given all the aforementioned factors, some studies attempt to see the Covid-19 impact and here some of their findings are presented.

Studies (Angaw, 2021; A. Geda, 2020; Alemayehu Geda, 2001) attest that the Ethiopian economy has intensively been affected by the pandemic. Agriculture, which accounts for 33.3% of the GDP, may reduce from -0.8% to -2.4%; the industry, which accounts for 28.1% of the GDP, may reduce from -8.5% to -25.5%; and the service sector, which accounts for 39.8% of the GDP, may reduce from -7.8 to -23.4%.

Table 5: Summary of predictions and empirical findings

Source	GDP/Macro	Employment	The way out provided
(Goshu, Ketema, et al., 2020)	-In severe case scenario reduction in GDP contribution ETB 204,237.4 Million	-About 37 and 61% of jobs will be lost in the manufacturing and construction sectors in the severe scenario.  -The services sector will be severely hit, as it would experience a	-Under the severe scenarios, the safety-net programs will be overwhelmed in a short span of time, especially in urban areas  - The pandemic sends a message that there is a need to establish a

Source	GDP/Macro	Employment	The way out provided
		decline in employment 74%.	National Sovereign Fund that will be activated and deployed in times of crisis and acute emergencies.
(A. Geda, 2020)	-GDP growth with Covid 19 -11% (with-5.5% least and -16.5% worst case scenarios)		
(EPDC, 2020)	<p>- The moderate and the worst scenario FDI and remittance have been assumed to decrease by 70% and 60%, respectively.</p> <p>- The economic growth would be deviating from the base by 2.81 and 3.80, respectively in the moderate and worst case scenarios.</p>	<p>-The moderate simulation presumes that 20% and 30% labor will layoff from the manufacturing and the service sectors, respectively while in the worst scenario the figures of labor layoff increased to 40% and 60% in the manufacturing and the service sectors, respectively.</p> <p>- 705 thousand and 1.57 million jobs would be threatened in the moderate and worst-case scenarios.</p>	
(JCCE, 2020b)		- Unemployment is up and inactivity is decreasing, as households need additional members to start earning income. Precarious work is growing as formal employment shrinks and informal work progresses.	

Source	GDP/Macro	Employment	The way out provided
		- The outlook in August was gloomy; 60 percent of workers were afraid of losing their jobs in the coming weeks, and two out of three businesses expect sales in 2020 to be “much worse” than in 2019.	
(PDC, 2020)	GDP growth for the 2019/20 fiscal year is projected to be lower than its target of 9.0% by between 2.81 and 3.80 percentage points (equivalent to 58.3 - 78.8 billion birr) due to the Covid-19 pandemic.		-Returning the economy to its high growth trajectory requires focusing on sectors with high productivity and job creation potentials  - Public investment should focus on empowering the private sector.  -Promoting both domestic and foreign investments with the right set of incentives (merit-based)

As can be seen from the table above, the aforementioned studies estimated the impact of the Covid-19 epidemic at various points in time and using various assumptions. As a result, it's not uncommon for their figures to diverge. They did, however, agree on the following points in general. First, the Covid will have a significant impact on economic performance, however the degree of impact may vary. Second, given the differences in study data, and time, it is not rare for them to disagree on the results and the approach they used. Third, they recommended a variety of policy reforms, focusing mostly on the government's large involvement.

### 3.6. Conceptual framework

Based on the aforementioned assessment of related studies and theories, a conceptual framework has been developed that explains the interconnectedness of selected variables onto which this study is based. As has been indicated in the conceptual framework of this study, the Covid-19 shock can be interpreted as a combination of supply and demand shocks. The former was mainly driven by the restriction of activities due to lockdowns and distancing measures to contain the spread of the virus, causing sectors to struggle to keep up with

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demand, while the later shock reflected both the income effect suffered by workers in restricted activities, as well as the diminished mobility and changes in consumption patterns due to contagion concerns (Goshu, Ferede, et al., 2020; Goshu, Ketema, et al., 2020; Yeyati & Filippini, 2021).

(Brinca et al., 2020) noted most economists would agree that the pandemic combines aspects of both supply and demand shocks. As per a demand shock is a sudden unexpected event that dramatically increases or decreases demand for a product or service, usually temporarily. A positive demand shock is a sudden increase in demand, while a negative demand shock is a decrease in demand. Either shock will have an effect on the prices of the product or service. In contrast, a supply shock is a sudden change in the supply of a product or service that causes an observable economic effect. A supply shock is anything that reduces the economy's capacity to produce goods and services, at given prices. Lockdown measures preventing workers from doing their jobs can be seen as a supply shock (Brinca et al., 2020).

Supply shock, production shutdowns and supply chain disruptions cause ripple effects across all economic sectors (Goshu, Ferede, et al., 2020). Production closures and supply chain disruptions adversely affect production, generating negative shocks to supply. The supply-side shock can quickly turn into a demand-side shock. Because of slow business operation, firms reduce their demand for inputs and may also experience difficulties meeting their obligations as cash flows dry up. (Brinca et al., 2020) a demand shock, on the other hand, reduces consumers' ability or willingness to purchase goods and services, at given prices. People avoiding restaurants for fear of contagion is an example of a demand shock. In the meantime a sectoral demand shock could occur as workers lose their jobs and income, they stop purchasing all kinds of goods, such as cars and appliances.

Spillover effect can refer to a positive or a negative economic, social or political impact, but more often negative, that is experienced in one region or across the world due to an independent event occurring from a seemingly unrelated event. More often, the event occurs in a specific country, which leads to the positive or negative impact spreading to the rest of the world. In return, it creates a social crisis or a shock in the market like booms or crashes.

Spillover effects can be caused by stock market downturns such as the Great Recession in 2008, or macro events like the Fukushima disaster in 2011. Likewise, the Covid-19 pandemic spillover effect resulted in during the lockdown period, trans-border trades have been limited, mobility (both goods and people) restricted, cross-country borders were shut down, etc (Díaz-bonilla, 2020; Goshu, Ketema, et al., 2020; Kumar et al., 2020).

Undoubtedly, (Kumar et al., 2020; Madurai Elavarasan & Pugazhendhi, 2020) in the meantime, the coronavirus pandemic is having a positive impact on the environmental side of production, due to the shutdown of many manufacturing units and significant reductions

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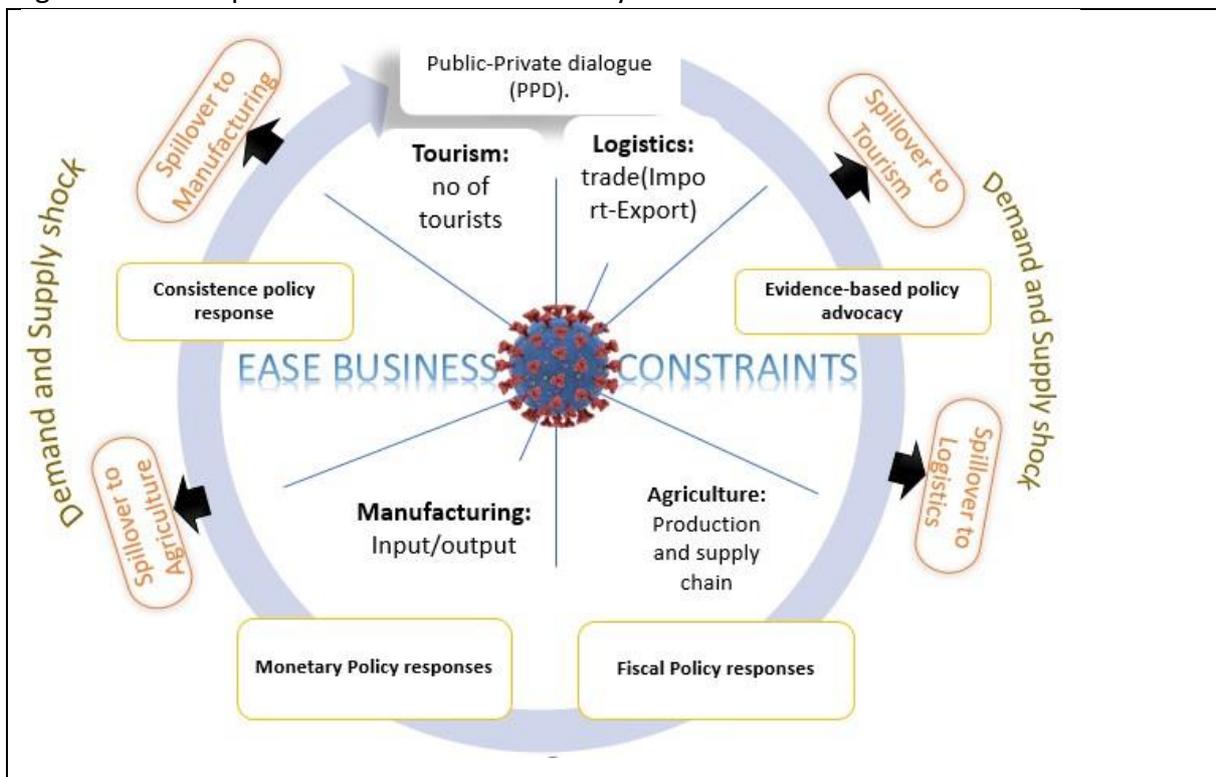
in logistics and distribution operations. More specifically, owing to the lockdown and less industrial activities less air pollution resulted in.

The Ethiopian economy has been vulnerable to shocks such as Covid-19, Climate changes, desert locust infestation, and war in 2019, 2020, and 2021. On top of this, Ethiopia has conducted a national election in 2021. Relatedly the government officially announced that nearly ETB 100 billion was spent for 8 months of the war in Tigray. Obviously, these shocks have been put pressure on the national economy in general and private sectors in particular.

In sum, fear. Still, the ending-up period is not yet known and its spreading is not under control, and uncertainties are still shooting up. The overall crisis of the pandemic both in developed and developing economies was estimated to be a global issue of the 21<sup>st</sup> Century (Angaw, 2021).

Following these, sectors such as tourism, logistics, manufacturing, and agriculture have significantly been affected in terms of generating revenue and employment contribution. It is, therefore, interventions such as monetary and fiscal policies responses are required. On top of this, public-private dialogue and evidence-based policies together with consistent policies responses sooner or later are demanded.

Figure 13: Conceptual Framework for the study



Source: Own formulation

## CHAPTER FOUR: RESULTS AND DISCUSSION

### 4.1. Ethiopian economy performance before and after a Covid-19 pandemic

#### 4.1.1. General Macro-Economic Performance of Ethiopia

Ethiopia has been among the fastest-growing economies albeit the slowing trend in recent times due to causes encompassing civil unrest, political uncertainty, Covid pandemic and policy adjustments that involved fiscal consolidation to stabilize the public debt (EPDC, 2020). It has exhibited a staggering 9.1 percent average growth rate in real Gross Domestic Product (GDP) between 2010/11 and 2019/20 (NBE, 2020a). The past three years average growth in real GDP rests at 7.6%, with a decelerated 6.1 percent growth in 2019/20. Yet, it is the fourth-largest economy in Sub-Sahara Africa with a GDP at the current market price of USD 107.6 billion in 2019/20 (EPDC, 2020; NBE, 2020a). The GDP per capita income has been growing, attaining a USD 1,080 in 2019/20 from its USD 815 in 2015/16. The service sector takes the largest share from GDP with 40 percent from total, followed by agriculture (33%) and industry (29%).

According to the IMF (2020<sup>6</sup>) report, the country's macro-economic indicators point to a more mixed picture: public investment was subdued, given government actions to control Ethiopia's debt accumulation and to limit budgetary capital outlays in the face of revenue shortfalls; merchandise exports and imports both declined in volume terms; electricity output rose by less than 1 percent; the output of cement products declined by 2.5 percent, although production of iron and steel rose by 11 percent.

Table 6: Key Macroeconomic Performance Indicators

Indicators	2015/16	2016/17	2017/18	2018/19	2019/20
GDP at Current Market Price (In Mn. USD)	74,297	81,760	84,356	96,107	107,660
Nominal GDP per Capita (In USD)	815	876	883	985	1080
Real GDP at constant basic price (In Mn. Birr)	1,449,398	1,596,482	1,719,491	1,874,689	1,989,519,005
Real GDP Growth Rate (In %)	8	10.1	7.7	9	6.1
Real GDP sectoral share					
Agriculture & Allied Activities (% of GDP)	38	36	35	33	33
Industrial Sector ( % of GDP )	24	26	27	28	29
Service Sector ( % of GDP )	40	39	39	40	40
Exports ('000 ETB)	122,501	139,830	184,282	213,437	239,229
Imports ('000 ETB)	424,750	430,233	502,113	561,512	571,230
Resource Balance (% of GDP)	-19.3	-15.9	-14.4	-17.5	-9.8
Average annual inflation rate					
Country Level					
-General inflation	9.7	7.4	14.6	12.6	19.9
-Food inflation	11.2	7.2	13.4	13.1	23.3

<sup>6</sup> <https://www.elibrary.imf.org/view/journals/002/2020/029/article-A001-en.xml?result=2&rskey=GtJQW4>

Indicators	2015/16	2016/17	2017/18	2018/19	2019/20
-Non-food inflation (core inflation)	8.1	7.5	15.8	11.9	15.8
Addis Ababa					
-General inflation	10.3	2.3	16.5	14.6	18.8
-Food inflation	16.6	1.2	8.7	15	25.9
-Non-Food inflation (core inflation)	5.8	3.2	22.6	14	13.9
<b>External Trade (In Mn. USD)</b>					
Export of goods & services	6,077	6,257	7,096	7,695	7,716
Import of goods & services	20,552	19,714	19,707	20,691	18,823
Net trade in goods & services	- 14,475	- 13,457	- 12,611	- 12,996	- 11,107
Current account balance including official transfers	- 6,655	- 6,543	- 5,285	- 4,934	- 4,396
Capital account balance	6,554	6,885	6,185	4,808	4,147
Overall balance of payments	- 831	659	- 202	- 942	- 1,227
<b>Government Finance (In Mn .Birr)</b>					
Total Revenue (including grants)	243,672	269,106	287,562	344,937	394,966
Total Revenue (excluding grants)	230,657	256,629	269,648	311,317	354,313
Of which Tax-Revenue	189,717	210,136	235,229	268,457	311,476
Tax-Revenue as % of GDP	14.71	14	12.26	11.55	10.5
Total Expenditures	272,930	329,287	354,205	413,106	480,143
Current Expenditures	131,903	176,703	210,470	238,157	275,967
Capital Expenditures	141,027	152,584	143,735	174,949	204,176
Total Expenditures as % of GDP	17.41	17.97	16.1	15.32	14.23
Current Surplus/Deficit	111,769	92,403	77,092	106,780	118,999
Overall Budget Deficit (including grants)	-29,258.53	-60,180.90	-66,643.18	-68,169.22	-85,177.36
Deficit as % of GDP	-1.87	-3.28	-3.03	-2.53	-2.52
<b>Exchange Rate (Birr/ USD)</b>					
* Period weighted Average	21.1059	22.4137	26.1082	28.0543	31.3427
* End period	21.8004	23.1081	27.2621	28.9109	34.9822

Source: (EPDC, 2020; NBE, 2020a)

#### 4.1.2. Inflation Pattern

Inflation is becoming worrisome for the country especially in recent periods. The general inflation rate rose from 14.4 percent in 2017/18 to 20.1 percent in 2020/21, with food inflation more severe in the period (from 13.5 percent in 2017/18 to 23.1 in June 2020/21). Non-food inflation pattern was relatively stable in the considered era (CSA, 2019a, 2020b, 2021a).

Table 7: Inflation rate at country level (2017/18 to 2020/21)

Budget Year and months	CPI Movements		
	General Inflation	Food Inflation	Non- Food Inflation
July 2017 – June 2018 (Annual Average)	14.4	13.5	15.8
July 2018 – June 2019 (Annual Average)	12.6	13.1	12
July 2019 – June 2020 (Annual Average)	19.9	23.3	15.8
July 2020 – June 2021 (Annual Average)	20.1	23.1	16.4
Jul-20	22.3	24.9	18.9
Aug-20	20	22	17.5
Sep-20	18.7	21.2	15.5

Budget Year and months	CPI Movements		
	General Inflation	Food Inflation	Non- Food Inflation
Oct-20	19.3	23.2	14.4
Nov-20	19	22.1	15.1
Dec-20	18.2	21.3	14.3
Jan-21	19.2	23.1	14.5
Feb-21	20.6	22.8	18
Mar-21	20.6	22	18.9
Apr-21	19.2	21.7	16
May-21	19.7	23.7	14.8
Jun-21	24.5	28.7	19
Jul-21	26.4	32	19

Source: (CSA, 2019a, 2020b, 2021a)

The price movement in the 2018/19 to 2019/20 epoch was higher (from 12.6% to 19.9%) compared to the past year pattern mainly due to the pandemic induced supply chain disruptions and expansionary monetary policy. The year-to-year inflation rate from June 2019/20 to June 2020/21 was however relatively stable unlike the preceding pattern. In the period, the general inflation rate grew to 20.1 percent in 2020/21 from 19.9 percent in 2019/20. This outwardly depicts the minimal effect of the pandemic on the price movements that occurred in the country, rather other attributes may explain the soaring inflation registered lately.

According to (CSA, 2021a) report, the country-level overall inflation rate (year – on- year) rose by 26.4 percent in July 2021 as compared to July 2020. Food inflation surged by 32 percent while the non-food inflation rate rose by 19 percent in July 2021 compared to the preceding year same period (July 2020). The 12 months moving average inflation rate shows the longer-term inflationary situation in the country. Observing the annual trend, CSA foreseen a longer-term high inflationary projection in the country. Regions have also suffered from the inflationary pressure observed in recent days. The highest inflation rate was recorded in Southern Nations, Nationalities, and People’s (SNNP) region with a staggering 37.7 percent rise while the smallest was in Dire Dawa (8.1 percent). Regions also ached from the soaring food inflation, with again the highest recorded in SNNP region (46.8 percent) and Dire Dawa (13.6 percent).

Table 8: General and food inflation in Ethiopia by regions in July 2021 (year-on-year basis)

Category	Country	Addis Ababa	Afar	Amhara	Ben. Gumuz	Dire Dawa	Gamb ella	Harari	Oromia	SNN P	Somali	Tigray*
General	26.4	23	19.7	22.3	24.4	8.4	21.1	13.8	27.9	37.3	24	7.5
Food	32	30	36.7	22	23.4	13.6	33.2	18.8	33.9	46.8	30	5.7

Source: (CSA, 2021a)

N.B. results for Tigray region is subject to a further examination due to sustained military conflict in the region since November 2020.

In general, and as highlighted above, the price surge observed in the country in recent periods is likely associated with non-Covid-19 pandemic attributes such the political unrest induced macro - economic shocks, a decline in imports, an imbalance between demand and supply endured in the country and the like.

#### 4.1.3. Exchange rate

Since 2018, Ethiopia inherited a dire economic situation characterized by serious shortages of foreign exchange and the continual devaluation of Ethiopian birr. The currency practically depreciated nearly 28.7% since the outbreak of Covid-19 in December 2019. The USD to ETB official exchange rate reached 44.56 ETB as of August 2021 from its 34.98 in December 2019/20, apparently depicting a rather faster depreciation of Birr to USD (NBE, 2021<sup>7</sup>).

Table 9: Official exchange rate movements across different periods (USD to ETB)

Selected dates	Value			Percentage change/Growth (percent)
	Purchases	sales	Average	
December 31,2019	31.80	32.12	31.96	
March 13,2020	32.48	32.81	32.64	2%
April 8, 2020	33.02	33.35	33.19	2%
October 8, 2020	36.94	37.31	37.12	12%
December 31,2010	39.18	39.57	39.38	6%
August 08, 2021	44.57	45.01	44.79	14%
Percentage change between Dec.31 <sup>st</sup> , 2019 and August 08, 2021.				40%

Source: NBE, 2021 (<https://nbebank.com/commercial-banks-exchange-rate/>)

Covid-19- pandemic outbreak starts from China in December 2019. The official USD to ETB exchange rate at the end of this period (December 31<sup>st</sup>, 2019) was ETB 31.96. At the time the first case of the pandemic registered in Ethiopia on March 13, 2020, the official exchange rate was ETB 32.64, only exhibiting a 2% increment between the two periods. Ethiopia then declared a state of emergency (SOE) for five months on April 08, 2020 with an effort to contain the expansion of the pandemic and the exchange rate at the time reached ETB 33.19. Birr depreciated by 12% during this five months SOE period, reaching ETB 37.12 on October 08, 2020 one month after the end of SOE. Depreciation of the currency has been fast even after this milestone period. ETB reached 44.79 for one USD as of August 2021, exhibiting a 21% fall from its level on October 08,2020. Generally, the Birr depreciated by an overall rate of 37% since the pandemic boots in the country in March 2020.

Although little evidence prevails to justify the extent of correlation between the observed depreciation of Birr and the impact of the pandemic, it is apparent that such rapid

<sup>7</sup> <https://nbebank.com/commercial-banks-exchange-rate/>

deterioration of birr brings inflationary pressure making living conditions difficult particularly to the low-income segment of the society. There are, in fact, diverse views with regard to the effect of the pandemic on the exchange rate of Birr. (Lemi, 2020) predicted that Ethiopia will not face sharp depreciation in its currency due to the pandemic as Birr is not market-determined. He further expected Birr's magnitude of annual depreciation to remain within the NBE's comfort range. On the contrary, (Ababulgu Abasimel & Wana Fufa, 2021; UN, 2020) identified two transmission channels of Covid-19: price and the exchange rate instability. (UN, 2020) forecasted a sustained pressure on the exchange rate of USD to Birr throughout 2020 with the widening gap between and the official and the parallel markets which had been managed in the pre-Covid era. It also foresaw a sharp sudden devaluation of Birr due to the pressure. Although the devaluation didn't happened as predicted, Birr has been rapidly depreciating since the pandemic pierced to the country. This might be partly associated with the Pandemic's effect but hard to utterly conclude this happened due to the disease.

#### **4.1.4. Government Finance**

The Ethiopian government revenue and expenditure shows an increasing trend but the increase in expenditure by far exceeds the increase in revenue. Total government revenue reached ETB 395 billion in 2019/20 from ETB 243.6 billion in 2015/16, exhibiting an average annual growth of 13% in the last five years. Total public revenue including grants has been rising by an average annual growth of 13% per annum since 2015/16 and notably by about 17% per annum since 2018/19. Tax revenue takes the lion's share which constitutes about 79% of the entire tax revenue in the past five years(NBE, 2020a). Total public expenditure increased from about ETB 273 billion in 2015/16 to ETB 480.1 in 2019/20, registering an average annual growth rate of 15%. The Ethiopian public finance is characterized by widening fiscal deficits. For instance, the fiscal deficit increased from ETB 68 billion in 2018/19 Birr to ETB 85.1 billion in 2019/20. The deficit in 2015/16 was ETB 29 billion (NBE, 2020a).

From 2015-2020 the average share of capital and recurrent expenditure from the total public expenditure reaches at 55% and 45% respectively. From 2017 onwards, total general government expenditure shows an increment arising mainly from the increase in recurrent expenditure which stood at ETB 238 billion in 2019 and its share in total expenditure became 58%.

The general government deficit shows a very slight improvement in the past five years and notably in the last three years. In 2018/19, for instance, it was well below budget as the authorities curtailed expenditure in the face of continuing revenue shortfalls. (NBE, 2020a) data shows the general government deficit narrowed from 3.84 percent of GDP in 2017/18 to 3.73 percent in 2019/20. Tax collection declined to 10 percent of GDP in 2019/20, underperforming the nominal budget target by 7 percent.

#### 4.1.5. Labor market

The urban labor market in Ethiopia is characterized by high unemployment and underemployment. Since 2014, urban employment in Ethiopia stood at about 18% (CSA, 2020d, 2020c). More than a quarter of the youth (aged 15-29) in Ethiopia are unemployed. Similarly about a quarter of women are unemployed. Youth women face an even higher unemployment rate of 34%.

Table 10: Urban unemployment rate in Ethiopia by regions

Region	Unemployment Rate				
	April	March	April	June	January
	2014	2015	2016	2018	2020
Country total	17.4	16.8	16.9	19.1	18.7
Tigray	18.4	18.6	20.6	21.5	23.3
Afar	12.3	13.2	19	15	20.3
Amhara	17.6	19	17.9	19.7	20.4
Oromia	16.1	15.5	15.2	18	18.2
Somali	14	14.9	18.2	18.9	15.1
Benishangul Gumuz	6.3	8.3	11.1	7.2	12.9
S.N.N.P. R	12.6	11.5	11.5	18.6	16.1
Gambella	8	7.6	8.2	10.7	12.7
Harari	12.2	12.2	10.4	16.7	15.7
Addis Ababa	23.5	21.2	21	20.2	19.3
Dire Dawa	22.8	18.1	23.9	25.3	21

Source: (CSA, 2020d, 2020c).

As can be seen above, country-level unemployment rate reached 18.7% in 2020, with the highest rate in Tigray (23.3%) and the lowest in Gambella (12.7%). The impact of Covid pandemic on jobs has been immense elsewhere across the globe. Recent ILO report (ILO, 2021) depicts that the pandemic causes an 8.8% global working hour loss (Equivalent to 255 million full-time equivalent jobs) which is manifested in terms of forgone job growth (30 million people), employment loss (114 million people) and reduced working hours. The disease also caused 81 million people out of the labor force and 33 million people unemployed in 2020 alone. As per the report, the recurrent waves of the pandemic around the globe have caused working-hour losses to remain persistently high in 2021, leading to a shortfall in total working hours of 4.8 percent in the first quarter (January to March) that dipped slightly to 4.4 percent in the second quarter (May to July). The world is expected to recover from the pandemic's shock provided that the vaccine distribution hastens and other fiscal supports including debt relief facilitates with the concerted effort of all actors.

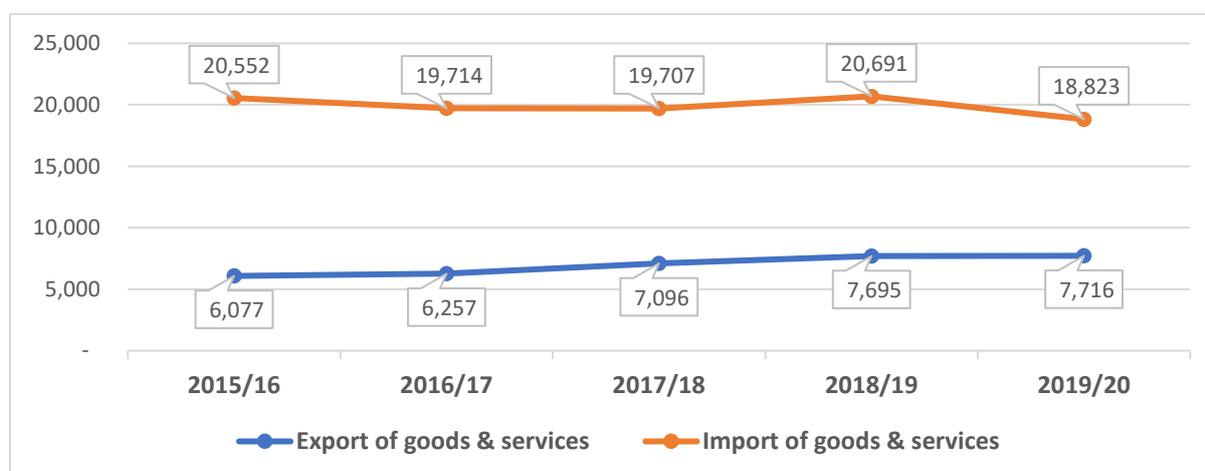
Ethiopia is not an exception when it comes to the shock. In the early stages of the pandemic (JCCE, 2020a) suggested that Ethiopia would lose about 1.41 million jobs in three months period since April 2020 on a medium basis, with an income loss for urban self-employed in

services at \$265 million, using a medium-estimate. The Commission further predicted a job loss of 1.76 million if the crisis continues for six months since April. The service, manufacturing and construction sectors were expected to be highly impacted by the pandemic. The effect on the manufacturing and construction sectors was expected as a direct impact of the global demand shock, as well as the supply shock due to social distancing measures. The urban service sector, and mostly the wholesale & retail, tourism, transport & warehousing, as well as personal services activities, were foreseen to get impacted mainly due to social distancing measures, and the “wait-and-see” behavior of households and businesses (JCCE, 2020a). Income shock was expected on the agriculture sector with minimal effect on the sector’s jobs. No quantitative measurement has been so far made to gauge the real effect of the pandemic on the jobs and income. However, recent studies on the subject matter suggest how some sectors have been severely affected by the pandemic. Based on the results from the phone monitoring survey of firms conducted, (WB, 2021) depicts how the pandemic adversely affected jobs particularly at the onset of the disease. Female headed households reportedly suffered significantly and the employment losses were more adverse on the urban service sector. Layoffs were largely protected by law due to the state of emergency proclamation sustained between April and October 2020, with a quick recovery then after. In sum, Covid has impacted employment but not as doomed at the outset. It is now slowly recovering particularly after lifting of the state of emergency on October 2020.

#### 4.2. Export and import performance at a glance

Ethiopia’s merchandise trade balance is dominated by imports with almost three fold compared to exports. The balance has also shown a narrowing gap in recent years. The country exported about USD 7.7 billion value of goods and services in 2019/20 while the import was equivalent to USD 18.8 billion in the same year (NBE, 2020a). Export has been growing by 6.3% on average per annum in the last five years while import has been falling by 2% on average in the same period.

Figure 14: Ethiopia’s foreign merchandise trade (million USD)



Source: (NBE, 2020a).

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The country primarily earns its merchandise export revenue from agricultural goods and notably coffee, flower, oilseeds, pulses and chat. These constituted about 73% of the entire export revenues in the last three years.

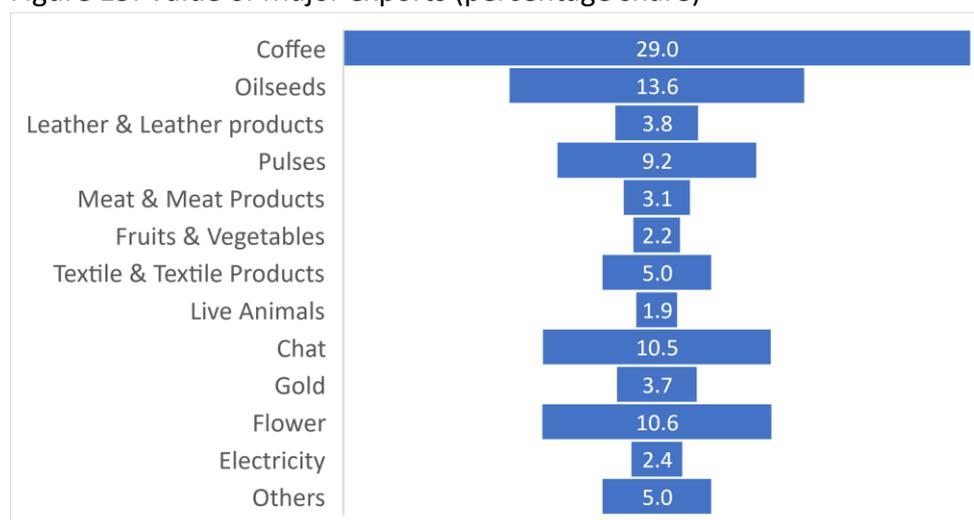
Table 11: Value of Major exports

Items	2017/18		2018/19		2019/20		Average (three years)	
	Value (Mill. USD)	%share	Value (Mill. USD)	%share	Value (Mill. USD)	%share	Value (Mill. USD)	%share
Coffee	839	29.6	764.1	28.7	855.9	28.6	819.7	29.0
Oilseeds	423.5	14.9	387.8	14.5	345	11.5	385.4	13.6
Leather and Leather Products	132.4	4.7	117.4	4.4	72	2.4	107.3	3.8
Pulses	269.5	9.5	272.3	10.2	234.8	7.9	258.9	9.2
Meat & Meat Products	101.7	3.6	88.6	3.3	67.4	2.3	85.9	3.1
Fruits & Vegetables	61.4	2.2	60.9	2.3	58.8	2	60.4	2.2
Textile & Textile Products	103.8	3.7	152.9	5.7	168.9	5.7	141.9	5.0
Live Animals	61.1	2.2	45.8	1.7	54.1	1.8	53.7	1.9
Chat	263.2	9.3	303.6	11.4	324.4	10.9	297.1	10.5
Gold	100.2	3.5	27.9	1	196.5	6.6	108.2	3.7
Flower	228.6	8.1	256.6	9.6	422.3	14.1	302.5	10.6
Electricity	80.5	2.8	55.7	2.1	66.4	2.2	67.5	2.4
Others	171.2	6	132.9	5	121.1	4.1	141.7	5.0
<b>Total Export</b>	<b>2,836.10</b>	<b>100</b>	<b>2,666.50</b>	<b>100</b>	<b>2,987.70</b>	<b>100</b>	<b>2,830</b>	<b>100.0</b>

Source: (NBE, 2020a).

Ethiopia majorly destines its export items to Asia (36%) , Europe (34%) and Africa (19%). the Americas take around 11%, with minute size also going to Oceania and other places. Saudi Arabia, UAE and Japan take the lion's share in terms of export destinations from Asia. The Netherlands, Switzerland and Germany are the major export destinations from Europe while the African's is dominated by the neighboring countries including Somalia, Djibouti, Sudan and Kenya. In recent years, a shift towards developing countries particularly Africa has been observed where just the two neighboring countries, Somali and Djibouti, account for 15.4% of Ethiopian total exports.

Figure 15: Value of Major exports (percentage share)



Source: (NBE, 2020a).

Major import items of the country mainly constitute capital goods (32.5%), consumer goods (29.4%) and semi-finished goods (19.1%). As said before, import has been declining in the last few years mainly owing to a lower import bill of fuel, capital goods and consumer goods. Particularly import declines by 8% between 2018/19 and 2019/20. The country primarily imports from Asia (61%), Europe (22%) and from Americas (9%). China is the largest exporter of goods to Ethiopia with a significant 43% share, followed by India and Kuwait each having a 13% share. Turkey, Ukraine, Germany and United Kingdom are the leading sources of imports from Europe.

Table 12: Value of Major imports

Categories	2017/18		2018/19		2019/20		Average (three years)	
	Value	%share	Value	%share	Value	%share	Value	%share
<b>Raw Materials</b>	<b>138</b>	<b>0.9</b>	<b>151.5</b>	<b>1</b>	<b>162.2</b>	<b>1.2</b>	<b>150.6</b>	<b>1.0</b>
<b>Semi-finished Goods</b>	<b>2,527.80</b>	<b>16.6</b>	<b>2,778.80</b>	<b>18.4</b>	<b>3,110.70</b>	<b>22.4</b>	<b>2,805.8</b>	<b>19.1</b>
Fertilizers	478.5	3.1	499.7	3.3	597.8	4.3	525.3	3.6
<b>Fuel</b>	<b>2,319.30</b>	<b>15.2</b>	<b>2,600.70</b>	<b>17.2</b>	<b>2,088.10</b>	<b>15</b>	<b>2,336.0</b>	<b>15.8</b>
Petroleum Products	2,227.20	14.6	2,493.40	16.5	2,003.70	14.4	2,241.4	15.2
Others	92	0.6	107.3	0.7	84.3	0.6	94.5	0.6
<b>Capital Goods</b>	<b>5,269.10</b>	<b>34.5</b>	<b>5,030.60</b>	<b>33.3</b>	<b>4,122.00</b>	<b>29.7</b>	<b>4,807.2</b>	<b>32.5</b>
Transport	1,130.90	7.4	1,429.20	9.5	397.6	2.9	985.9	6.6
Agriculture	51.5	0.3	58.6	0.4	88.2	0.6	66.1	0.4
Industrial	4,086.70	26.8	3,542.90	23.4	3,636.20	26.2	3,755.3	25.5
<b>Consumer goods</b>	<b>4,707.00</b>	<b>30.9</b>	<b>4,273.10</b>	<b>28.3</b>	<b>4,010.60</b>	<b>28.9</b>	<b>4,330.2</b>	<b>29.4</b>
Durables	1,351.70	8.9	1,200.70	7.9	920.5	6.6	1,157.6	7.8
Non-durables	3,355.30	22	3,072.30	20.3	3,090.10	22.3	3,172.6	21.5
<b>Miscellaneous</b>	<b>294.2</b>	<b>1.9</b>	<b>277.2</b>	<b>1.8</b>	<b>387.8</b>	<b>2.8</b>	<b>319.7</b>	<b>2.2</b>
<b>Total Imports</b>	<b>15,255.30</b>	<b>100</b>	<b>15,112.00</b>	<b>100</b>	<b>13,881.30</b>	<b>100</b>	<b>26748.3</b>	<b>100.0</b>

Source: (NBE, 2020a).

On the other hand, the current account deficit (including official transfers) amounted to USD 4.39 billion in 2019/20, lower than USD 4.9 Billion same period of previous year (in 2018/19) and USD 6.6 billion in 2015/16. This is mainly due to an increase in net private transfers, improvement in a deficit of net services and merchandise trade deficits despite a decline in net official transfers. The overall balance of payments deficit stood at USD 1.2 billion in 2019/20 compared to USD 942 million deficit a year before. The external trade is characterized by a chronic balance of trade deficit where imports by 2019/20 became nearly two and half times that of exports. Ethiopia's export sector is currently too small to contribute to structural transformation.

Although the value of imports almost always exceeds the export by far, the later unveils a rising trend (6.2% per annum) while the import showing a slightly declining trend of 2% per annum over the past five years. The considered period witnessed a narrowing gap in net trade of goods & services, current as well as overall account balance.

#### **4.2.1.Export and import: Covid-19 pandemic nexus**

Since Covid-19 pandemic case was reported in Ethiopia for the first time in March 2020, several measures have been taken mainly in response to preventing the spread of the virus. The actions in turn have been affecting various socio-economic activities including foreign trade performances. Unlike several economies across the globe, Ethiopia performs well in exports in this era of the pandemic but with a slight decline in imports.

According to (NBE, 2020b, 2020c, 2021) analysis (based on Ministry of customs data), the total receipts from goods export increased by 16.6 percent in the third quarter of Ethiopian 2020/21 fiscal year (January to March, 2020) compared to last year (2019/20) same quarter. This was attributed to a significant increase in earnings from the export of gold (748.4 percent), coffee (5.6 percent), pulses (22.6 percent), flower (16.1 percent), chat (19.5 percent), fruits & vegetables (54.4 percent), meat & meat products (15.0 percent), live-animals (27.0 percent) and electricity (14.4 percent). According to the World Bank 2021 report (WB, 2021), service sector exports declined by about 6% mostly because of lower revenue from Ethiopian Airlines. Foreign direct investment (FDI) fell by 20% to 2.3% of GDP, and personal remittances declined by 10% to 5.3% of GDP. The country imported about USD 3.6 billion value of goods between the same third quarters of 2019/20 and 2021, with a decline of 1.4 percent year-on-year basis. This helped in narrowing the deficit in the overall balance of payments.

Table 13: Value of imports and exports, by Major Commodity Groups (In Thousands of Birr)

EXPORT										
Quarter	Year (G.C.)	Year (E.C.)	Items							Total
			Period	Coffee	Oilseeds	Pulses	Fruits & Veget.	Flower	Others	
Qtr I	2019	2011/12	July, August, September	6,750,439	1,568,071	1,416,494	476,182	3,357,992	7,461,371	21,030,549
Qtr II	2019	2012	October, November, December	4,006,076	1,623,733	1,506,980	457,595	2,751,774	6,682,962	17,029,119
Qtr III <sup>8</sup>	2020	2012	January, February, March	6,376,314	4,146,224	2,130,169	463,014	3,641,117	7,661,998	24,418,835 (757.6 million USD)
Qtr IV	2020	2012	April, May, June	9,911,481	3,674,956	2,369,253	438,005	3,457,597	12,035,343	31,886,635
Qtr I	2020	2012/13	July, August, September	6,618,332	2,081,331	1,672,518	473,697	3,667,168	15,333,903	29,846,949
Qtr II	2020	2013	October, November, December	4,541,379	3,638,713	1,452,724	558,497	4,203,147	12,940,616	27,335,076
Qtr III	2021	2013	January, February, March	8,361,352	4,243,241	3,236,909	885,504	5,241,674	12,533,230	34,501,910 (883.1 million USD)
IMPORT										
Quarter	Year		Period	Items				Total	Total (million USD)	
	G.C.	E.C.		Food & Live Animals	Petroleum Prod.	Metal & Metal Manfc.	Others			
Qtr I	2019	2011/12	July, August, September	927,667	1,010,292	477,106	1,287,218	3,702,282		
Qtr II	2019	2012	October, November, December	660,368	1,013,691	533,020	2,194,258	4,401,337		
Qtr III	2020	2012	January, February, March	658,196	955,229	406,143	1,878,138	3,897,706	3,626.3	
Qtr IV	2020	2012	April, May, June	527,323	887,984	326,856	2,313,879	4,056,041		
Qtr I	2020	2012/13	July, August, September	1,183,597	878,687	403,809	2,688,102	5,154,196		
Qtr II	2020	2013	October, November, December	1,151,051	937,896	329,540	1,982,891	4,401,378		
Qtr III	2021	2013	January, February, March	667,017	959,979	433,818	3,312,297	5,373,111	3,573.9	

Source: (NBE, 2020b, 2020c, 2021) (Based on Data from Customs Commission)

<sup>8</sup> The first Covid 19 case reported in Ethiopia was on March 13, 2020 (aligns with 3<sup>rd</sup> quarter, 2020)  
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Although difficult to exactly justify the rationales behind the observed rise in export volume and value, some items such as coffee could be directly linked with the rise in household demand due to the Covid-19 effect. In fact, the rise in coffee exports has been among odds that happened under the pandemic era<sup>9</sup>. With coffee shops, restaurants and hotels closed or reduced capacities, it was expected that coffee consumption would drop so as fall in the bean's sales. On the contrary, with lockdowns everywhere and people staying at home, they had to somehow fulfill their need for daily caffeine through other means such as purchasing coffee from grocery stores using online and other apt means thanks to the efficient supply chain and delivery services (ibid).

The trade deficit has been huge as recent data show. Ethiopia exported close to 3 billion US dollars and imported close to 16 billion dollars in 2019/20. Gross official reserves remained low, declined from 3.99 billion US dollars in 2018 down to 2.99 billion US dollars in 2020, due to weak export performance. Overall, no significant change on foreign trade has been observed in the pre and post pandemic era due to the Covid-19 disease.

### **4.3. Findings of the Sample Survey**

#### **4.3.1. Firm Profile**

As elaborated in the methodology part, a total of 400 samples were taken from across five cities of Ethiopia, most of which (75%) from Addis Ababa and the rest from Adama, Bahirdar, Dire Dawa and Hawassa as specified in the methodology part. Most of the interviewees were males (79%). We interviewed managers different from owners (38%), owner managers (33%), employees (24%) and the rest spouse/children/relatives, etc. Sole proprietorship (66%) and private limited company (29%) forms of legal setups dominate the sampled interviewees. All of the sampled interviews have domestic origins.

#### **4.3.2. Financial Impact**

Covid-19 pandemic has several impacts on businesses performance. The pandemic has been witnessed for creating an immense financial stresses on businesses due to a drop in sales, loss in revenues, surge in production costs, and other impediments triggered by the effects of the disease (Brodeur et al., 2020; Panagiotis et al., 2020; UN, 2020).

In order to gauge the extent of financial pressure exerted by the pandemic, we asked our sample survey respondents whether they faced cashflow shortages after the wake of the pandemic. The lion's share of the respondents stated that they faced cashflow shortage (66%), and the most frequently adopted methods for coping with the shortage have been via loans (61%), delaying payments (23%) and funding from existing shareholders (14%). As per in-depth interviews undertaken with assorted business firms (most are in the tourism and

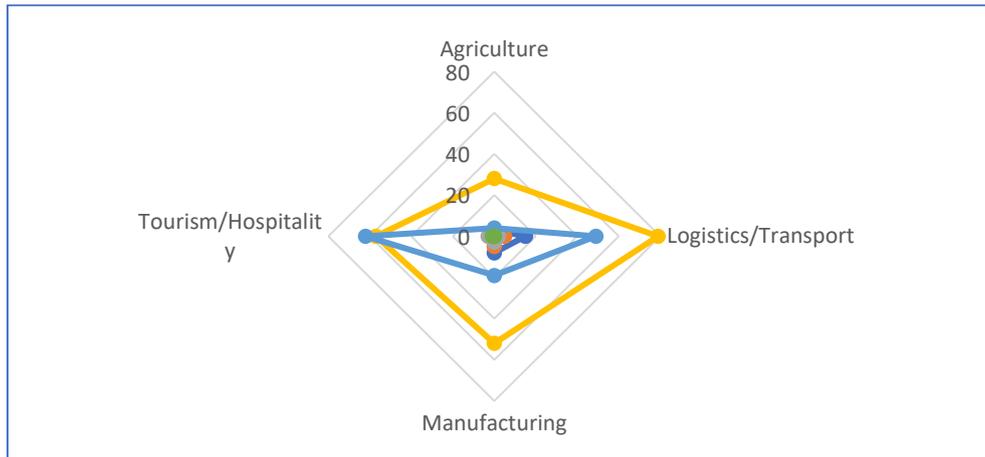
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<sup>9</sup> <https://www.bbc.com/future/bespoke/made-on-earth/how-the-coffee-trade-survived-Covid-19.html>  
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hospitality sectors), cashflow shortages made them unable to pay bank loan debts, tax liabilities, invoices, salary and wages, rents, and other obligations.

We also asked our sample respondents the extent to the pandemic affects the financial sustainability of their firms. For most (65%), the impact of the pandemic is a concern 'to some extent' for the financial sustainability of their company while about 34% disclosed they are 'very much concerned' about the future of the institution.

Figure 16: Has the impact of the pandemic jeopardizing the financial sustainability of the company?



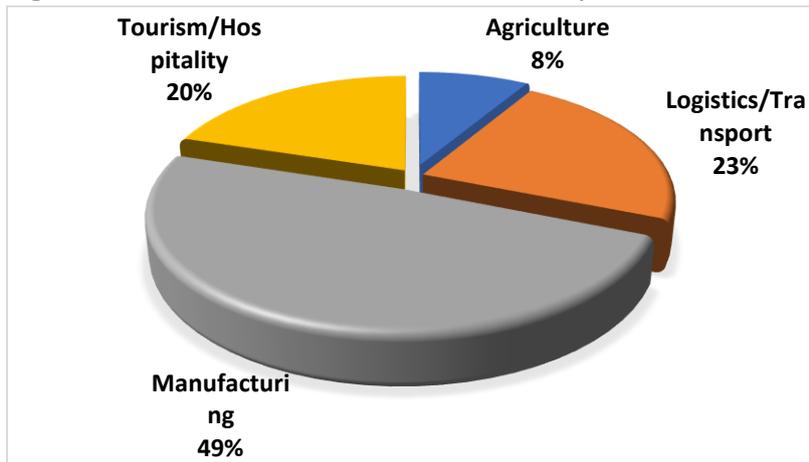
Response	Number of responses by Sector				Total
	Agriculture	Logistics/Transport	Manufacturing	Tourism/Hospitality	
No, we are not really concerned for the future of the institution	3	15	8	2	28
Not at all, we are very confident for the future of the institution	2	5	5	0	12
We are indifferent	1	2	3	3	9
Yes, we are somewhat concerned about the future of the institution	28	79	52	57	216
Yes, we are very concerned about the future of the institution	4	49	19	62	134
<b>Total</b>	<b>38</b>	<b>150</b>	<b>87</b>	<b>125</b>	<b>400</b>

Source: Sample Survey, 2021.

Firms commonly opt for diverse mechanisms to cope with financial challenges faced at times of such crisis. Slashing costs, loan and shareholders financing, introducing new business lines, laying off employees, etc could be some of the mediums. In this regard, the interviewees were queried whether they approached financial institutions for loan assistance to cope with the pandemic's effect. We learnt that about 59% in fact didn't approach financial institutions, with the remaining 41% paid visits. Those in the manufacturing sector take the lead in

approaching the financial institutions. In-depth interviews conducted with different business entities, and notably in the tourism and hospitality sector, commonly stated that they have been using a loan and equity financing as well as reduction of operating costs as measures to curb cashflow shortages. Decreasing or completely freezing recruitment of new staffs, reducing or delaying increase of wages or annual bonuses, and minimizing different operating and fixed investment costs have been identified as key mitigation measures to survive under the Covid-19 storm.

Figure 17: Financial institutions contacted by sector



Source: Sample Survey, 2021

Commercial banks (49%), microfinance institutions (32%), and saving and credit associations (16%) were the leading financial institutions contacted. Most wanted the loan for working capital (83%) although factoring/debt recovery delays (29%) and asset financing (27%) were also among significant applications. The response from the financial institutions approached was either favorable (66%) or on waiting status (33%). Only 3% of the application was reportedly rejected.

In general, most businesses have been facing cashflow shortages due to the effects of the pandemic although the dominant majority haven't made contacts with financial institutions. Manufacturing sector operators approached financial institutions more often than others and most (of contacting) said they got favorable responses.

#### 4.3.3. Impact on production/productivity

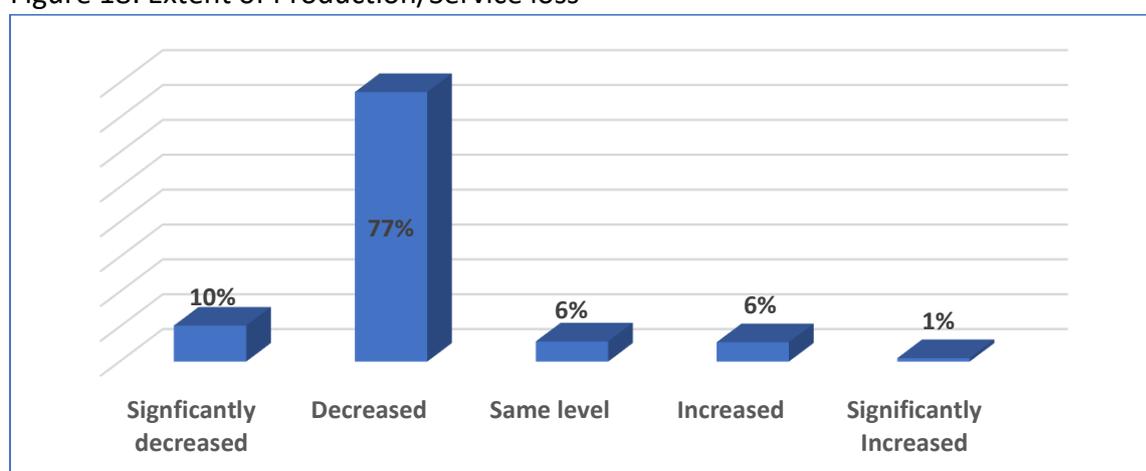
One of the adverse effects of Covid-19 pandemic is on production and productivity of firms despite sectoral diversity, size, geography and technological level. In fact, the extent of impact varies from sector to sector. Some such as the manufacturing, tourism and hospitality, and the aviation hit hard while for others like agriculture, the effect has been comparatively mild. Trade in services like airplane travel, hotel rentals, and tourism have already been hit hard by both the supply-side and demand-side aspects of Covid-19 (Tomiura, 2020). Globally, for

instance, (Ozili, Peterson and Arun, 2020) noted that the tourism industry alone recorded a loss of over \$200 billion. Ethiopia is no exception in this regard. The effect of the pandemic has been unfolding since the virus boots in the country in early March 2020. We examine the influence of the pandemic on business production in the following manner based on findings of the sample survey.

### **Effects on business production and growth**

According to the sample survey conducted, on average 77% of the entirely considered encountered production and service declines in the post Covid era. Severe production loss was particularly reported by the logistics and transport sector (83%), and the least by the manufacturing (69%).

Figure 18: Extent of Production/Service loss



Production/Service level		Agriculture	Logistics /Transport	Manufacturing	Tourism/ Hospitality	Total
1. Significantly decreased	Count	4	4	11	22	41
	% within Sector	10.5%	2.7%	12.6%	17.6%	10.3%
2. Decreased	Count	28	125	60	94	307
	% within Sector	74%	83%	69%	75%	77%
3. Same level	Count	1	11	8	3	23
	% within Sector	2.6%	7.3%	9.2%	2.4%	5.8%
4. Increased	Count	1	7	8	6	22
	% within Sector	2.6%	4.7%	9.2%	4.8%	5.5%
5. Significantly Increased	Count	3	1	0	0	4
	% within Sector	7.9%	.7%	0.0%	0.0%	1.0%
Not Applicable	Count	1	2	0	0	3
	% within Sector	2.6%	1.3%	0.0%	0.0%	.8%
Total	Count	38	150	87	125	400

Source: Sample Survey, 2021

Incidences of production and capacity drops were also backed by the in-depth interviews conducted. Covid-19 pandemic has generally caused supply disruptions along the value chain that ultimately resulted in reduction of services, delay in the delivery final goods and adversely impacted capacity of businesses to compete in both domestic and international markets. As per the interviewees (in-depth), lower demand for services and market drain are the foremost market challenges faced by businesses in this Covid era.

Aligned with the production and service decays, the preponderance (86%) of the sampled respondents reported a decline in business growth since the pandemic onsets in the country. The slack has been particularly severe for the tourism sector where about 92% declared abatement. This should not be surprising owing to the gigantic effects of lockdowns and border closures in countries which substantially disabled the aviation and other passengers transport industry leading to travelers movement restrictions. This unquestionably affects the hospitality industry and tourism in general. Yet, about two-third (65%) didn't stop operation because of the pandemic's crisis.

Table 14: Growth pattern after the Covid-19 pandemic

Pattern		Agriculture	Logistics/Transport	Manufacturing	Tourism/Hospitality	Total
Declining	Count	34	128	68	115	345
	% within Sector	89%	85%	78%	92%	86%
Growing	Count	2	6	11	3	22
	% within Sector	5%	4%	13%	2%	6%
No change	Count	2	12	6	4	24
	% within Sector	5%	8%	7%	3%	6%
No comment/Can't judge	Count	0	4	2	3	9
	% within Sector	0.0%	2.7%	2.3%	2.4%	2%
Total	Count	38	150	87	125	400

Source: Sample Survey, 2021

The major causes for production losses encountered comprise weakened demand (54%), various restrictions emplaced by local law enforcement impacting operations (49%), input shortage (41%), and high cost of inputs (38%), among others. Other less significant factors for production/service loss embrace working hours reduction, increase in equipment and machine failures, labor shortage and others. Yet, causes for production or service loss vary from sector to sector. For instance, inadequate demand has been nuanced as the leading factor for the logistics/transport and tourism /hospitality sectors while most of the surveyed manufacturers pointed out restriction placed by local law enforcement as the leading factor impacting their operations, and hence production loss. Tourism sector has also been facing a shortage of inputs and restriction placed by local law enforcement as other causal factors for service reduction next to weaker demand for the services. According to the survey participants, the extent of the pandemic's impact on production and service has been ranging between 'serious' to 'high' as replied by 39% and 47% of the respondents, respectively. Those gauging the impact 'small' to 'none' (some also said 'positive') account for the remaining 15% share.

### **Effects on Productions, Revenues and Costs**

The economic impact of the pandemic can be manifested in multifarious ways and for most the effect has been disastrous. Majority of the respondents disclosed that they have witnessed revenue decrement (77%), sales abatement (72%), customers cutback (77%), material input cost surge (66%), equipment cost increment (68%), labor cost rise (56%), other operating costs hike (65%), and market price escalation (57%). The number of employees either declined (32%) or maintained at the same level (34%). About 27% replied this is not applicable for their case. In general, the extent of impact has been severe in many of the indicators considered. Yet, slight differences across sectors can be observed in few of the measurements. For instance, most of the sectors interviewed stated that they retained their employees in the Covid era and only about a third (32%) reported cuts in employment levels. Of those that reduced employees, agriculture and tourism sectors take the higher shares (about 50%) compared to the manufacturing and logistics/transport industries. Although most reported labor cost surge, significant numbers in the manufacturing sector started the level has been constant.

Table 15: Market, production and financial impact of Covid-19 on sampled firms

Indicator	Agriculture	Logistics/ Transport	Manufacturing	Tourism/ Hospitality	Total
Company revenue decreased	74%	84%	62%	78%	77%
Amount of Sale decreased	79%	67%	68%	78%	72%
Decrease in number of customers	74%	81%	70%	78%	77%
Number of employees					
Decreased	50%	12%	32%	49%	32%
Same level	16%	47%	24%	30%	34%
Not applicable	29%	35%	34%	10%	27%
Material input cost					
Increased	58%	69%	63%	66%	66%
Significantly increased	32%	18%	16%	9%	16%
Equipment Cost					
Increased	74%	67%	61%	71%	68%
Significantly increased	24%	23%	17%	12%	18%
Labor Cost					
Same level	3%	14%	39%	13%	18%
Increased	63%	55%	38%	69%	56%
Significantly increased	16%	13%	9%	7%	11%
Not applicable	11%	18%	10%	6%	12%
Other operating costs					
Same level	3%	9%	18%	6%	10%
Increased	63%	63%	56%	75%	65%
Significantly increased	29%	24%	20%	10%	19%

Source: Sample Survey, 2021

### **Ways the pandemic affecting businesses**

The pandemic has altered performance of businesses in a number of ways. As repeatedly stated, different measures like social distancing, movement restrictions, partial lockdowns

and others taken by the government to contain the spread of the virus affects businesses in multitude of ways. As also indicated above, drop in number of customers and sales volume, rise in costs, decrement in goods and services prices due to demand falls, and others might be pinpointed. Businesses usually encounter multiple effects at a time, meaning there might be a drop in number of customers accompanied by cost increment and goods/service price falls. In this respect, the majority of the sample respondents (53%) identified reduced access to domestic customers as the leading impact Covid-19 imposed on their business along other effects too. This is followed by loss (39%), domestic supply chain problems (27%), reduced access to overseas customers (25%) and bankruptcy (22%). These responses however vary from sector to sector. For instance, loss in profit and reduced access to domestic customers were significant in the agriculture sector while bankruptcy and loss in profit have been the leading repercussions in the logistics/transport sector. Reduced access to domestic and overseas customers has also been mentioned as the major effect of the pandemic for the manufacturing and tourism sectors.

Table 16: In what ways has your business been affected by the Covid-19 pandemic?

Response		Sector				Total Cases	
		Agriculture	Logistics /Transport	Manufacturing	Tourism/ Hospitality	Number	Percent
No impact	Count	1	5	0	1	7	2%
	% of Total	2.6%	3.7%	0.0%	1.0%		
Increase demand / revenue	Count	2	2	2	1	7	2%
	% of Total	5.3%	1.5%	2.4%	1.0%		
Profit/ loss	Count	34	56	10	40	140	39%
	% of Total	89.5%	41.8%	11.9%	39.2%		
Bankruptcy	Count	17	57	2	4	80	22%
	% of Total	44.7%	42.5%	2.4%	3.9%		
Domestic supply chain problems	Count	23	24	14	37	98	27%
	% of Total	60.5%	17.9%	16.7%	36.3%		
Overseas supply chain problems	Count	15	8	5	24	52	15%
	% of Total	39.5%	6.0%	6.0%	23.5%		
Reduced access to domestic customers	Count	33	41	48	66	188	53%
	% of Total	86.8%	30.6%	57.1%	64.7%		
Reduced access to overseas customers	Count	15	12	21	40	88	25%
	% of Total	39.5%	9.0%	25.0%	39.2%		
Reduced cash flow	Count	29	22	2	17	70	20%
	% of Total	76.3%	16.4%	2.4%	16.7%		
Imbalance of income and expenditure	Count	23	28	6	4	61	17%
	% of Total	60.5%	20.9%	7.1%	3.9%		
Shortage of workforce	Count	11	1	2	0	14	4%
	% of Total	28.9%	.7%	2.4%	0.0%		
Complete loss and shutdown	Count	2	3	0	1	6	2%
	% of Total	5.3%	2.2%	0.0%	1.0%		
Other	Count	0	1	0	0	1	0.3%
	% of Total	0.0%	.7%	0.0%	0.0%		
Total	Count	38	134	84	102	358	

Source: Sample Survey, 2021.

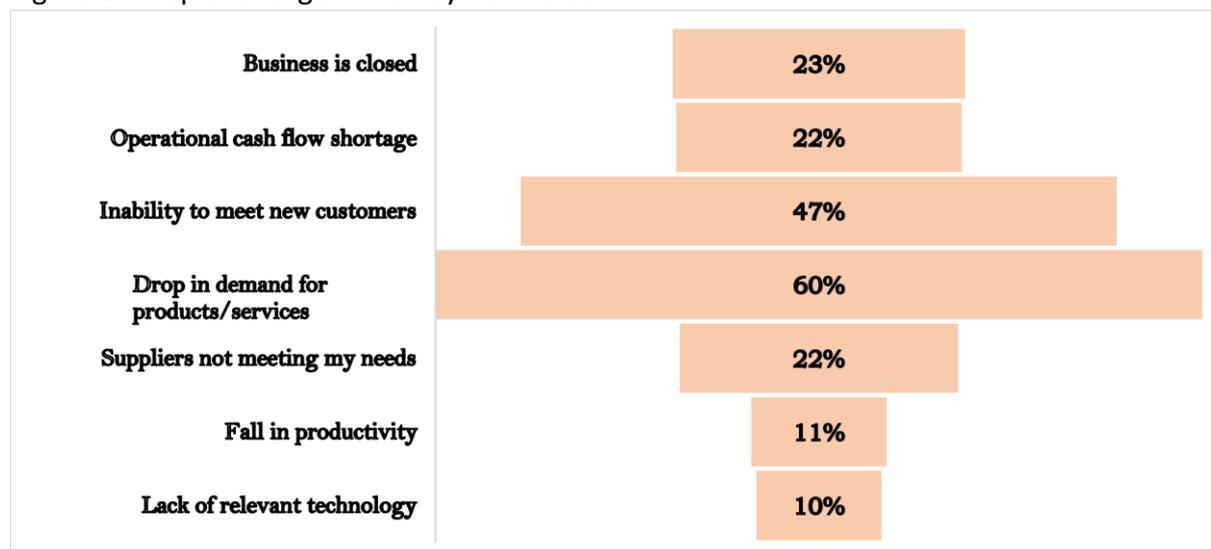
### ***The effect of social distancing on operations***

Social distancing measure is one of the actions taken by the government to subdue the proliferation of the virus. Although the health benefits of such measures is unquestionable, it has an adverse effect on the performance of businesses and especially on those customer-based businesses such as hotels, restaurants, public transport services, sport and entertainment events and the like. As learnt from the sample survey findings, the effect of social distancing has been largely minimal (26%) or moderate (41%) on the firms' operation and turnovers. Only one fifth (20%) reported significant impact and about 7% 'total effect'.

### ***Challenges on business performance***

The Covid-19 pandemic has created various and often multiple challenges to firms. Despite the fact that the extent of hurdles vary from sector to sector, most of the sample survey respondents in all sectors mentioned a drop in demand for products/services (60%) and reduction of opportunities to meet new customers (47%) as the main and common impediments faced due to the pandemic.

Figure 19: Top challenges faced by businesses



Source: Sample Survey, 2021.

As also tabulated beneath, the challenges faced differ across sectors. Those in the agriculture sector mentioned several multiple of challenges while others identified few focused troubles induced by the pandemic. For instance, business closure and drop in demand for products/services were identified as the leading challenges by the logistics/Transport sector. The agriculture, manufacturing and tourism sectors have reportedly faced a drop in demand for products/services and a reduction of opportunities to meet new customers.

Table 17: Top challenges the firm facing after the advent of the Covid-19 pandemic (Top challenges faced)

Top Challenges Faced		Sector				Total Cases	
		Agriculture	Logistics /Transport	Manufacturing	Tourism/Hospitality	Number	Percent
Business is closed	Count	11	55	4	14	84	23%
	% of Total	29%	41%	5%	13%		
Lack of operational cash flow	Count	31	25	7	19	82	22%
	% of Total	82%	19%	8%	17%		
Many workers cannot return to work	Count	15	11	2	2	30	8%
	% of Total	39%	8%	2%	2%		
Decline in workers' production/productivity from working remotely	Count	24	5	4	6	39	11%
	% of Total	63%	4%	5%	5%		
Reduction of opportunities to meet new customers	Count	30	35	64	42	171	47%
	% of Total	79%	26%	76%	38%		
Drop in demand for products/services	Count	28	54	58	80	220	60%
	% of Total	74%	41%	69%	72%		
Suppliers not meeting my needs	Count	12	27	30	11	80	22%
	% of Total	32%	20%	36%	10%		
Challenges in logistics and shipping of products	Count	11	2	3	12	28	8%
	% of Total	29%	2%	4%	11%		
Difficulties in accessing relevant technology in the context of Covid-19	Count	15	8	6	7	36	10%
	% of Total	39%	6%	7%	6%		
Issues with changing business strategies and offering alternative products/services	Count	6	7	1	2	16	4%
	% of Total	16%	5%	1%	2%		
No significant effect	Count	0	11	5	4	20	5%
	% of Total	0.0%	8%	6%	4%		
Other	Count	0	5	0	7	12	3%
	% of Total	0.0%	4%	0%	6%		
Total	Count	38	133	84	111	366	

Source: Sample survey, 2021

### **Expected impact on business operations**

The interviewees were requested to reflect their expectations regarding the effect of the pandemic on their business revenue/profit, debt, tax, subsidy and workforce on five-point rating scale (i.e. "Decrease (0-50%)", "Decrease (above50%)", "Decrease (0-25%)", "Increase", and "No change"). The majority expect no changes on the mentioned variables (debt level 58%, business tax 52%, subsidy 87%, and workforce 61%), except reduction in revenue at different levels as reported by 89% of the respondents.

Table 18: Major expected impacts on business operations (percent responses)

Expected Impact	Agriculture	Logistics/ Transport	Manufacturing	Tourism/ Hospitality	Total Average (of the four sectors)
Revenue/profit					
<i>Decrease (0-50%)</i>	16%	44%	17%	31%	32%
<i>Decrease (above50%)</i>	47%	23%	34%	34%	31%
<i>Decrease (0-25%)</i>	21%	24%	28%	28%	26%
Business Debt					
<i>Increase</i>	39%	30%	39%	18%	29%
<i>No Change</i>	53%	65%	40%	65%	58%
Business Tax					
<i>Decrease (0-50%)</i>	3%	15%	20%	8%	13%
<i>Decrease (above50%)</i>	37%	19%	21%	11%	19%
<i>Increase</i>	8%	8%	17%	17%	13%
<i>No change</i>	50%	56%	39%	58%	52%
Business Subsidy					
<i>No change</i>	89%	95%	78%	82%	87%
Workforce					
<i>Decrease (0-50%)</i>	29%	18%	14%	13%	17%
<i>Decrease (0-25%)</i>	13%	12%	18%	8%	12%
<i>No change</i>	53%	65%	41%	71%	61%

Source: Sample survey, 2021

#### 4.3.4. Impact on inputs

The effect on input supply, distribution and utilization is closely associated with production and service deliveries. Smooth business operations required for unaltered goods and services production entail an efficient delivery of the required inputs through orderly logistics. The emergence of Covid-19 pandemic has been disrupting the normal flow of inputs because of border closures, movement restrictions, travel bans, etc actions taken by countries across the globe to prevent the spread of the virus. These obviously affect businesses because inputs delivery delay or at times they might not be shipped at all. In this connection, we asked our respondents how the pandemic affects the delivery of inputs and the consequences unfolded. The first query was related to the challenges faced with the logistics sector. Of those who replied, the most frequent responses among others were: total disruption of supply (32%), border closure and delays (30%), delays inf freight transportation (29%), and supply shortages (24%). The feedback in fact vary across sectors. For the logistics/transport segment, the leading response was total disruption of supply (70%). The manufacturing sector is primarily entangled with delays in freight transportation (60%) and border closures and delays (39%). Those in the tourism/hospitality sector mentioned that border closures and delays (30%), total disruption of supply (26%), and supply shortages (22%).

Table 19: Challenges faced with logistics

Description		Sector				Total
		Agriculture	Logistics/ Transport	Manuf acturing	Tourism/ Hospitality	
Border closures and delays	Count	16	13	32	31	92
	% within Sector	67%	13%	39%	30%	
Delays in freight transportation	Count	19	6	49	16	90
	% within Sector	79%	6%	60%	16%	
Limited space or frequency of cargo shipments	Count	13	5	2	6	26
	% within Sector	54%	5%	2%	6%	
Transport logistics costs have become too high	Count	19	11	2	12	44
	% within Sector	79%	11%	2%	12%	
Supply shortages	Count	15	19	17	22	73
	% within Sector	63%	19%	21%	22%	
Total disruption of supply	Count	1	69	2	27	99
	% within Sector	4%	70%	2%	26%	
Satisfactory supply	Count	4	0	1	3	8
	% within Sector	17%	0.0%	1.2%	3%	
Normal supply	Count	1	0	0	2	3
	% within Sector	4%	0.0%	0.0%	2%	
Other	Count	0	8	0	17	25
	% within Sector	0.0%	8%	0.0%	17%	
Total	Count	24	99	82	102	307

Source: Sample Survey, 2021

The pandemic has also been gravely affecting both national and internal supply chains. In this regard, our sample survey respondents witnessed the extent of disruptions they encountered. The great majority faced shortages with both national (91%) and international (79%) suppliers since the global outbreak of the pandemic. International suppliers shortage was specifically severed for manufacturers as reported by 83%, followed by the logistic/transport sector (81%) operators.

#### 4.3.5. Impact on employment

One of the pandemic's notable effects is on jobs, making millions across the globe jobless. ILO estimations show that about 81 million workers across the globe left the labor force and around 33 million became unemployed since 2020 because of the pandemic (ILO, 2021). Early predictions made by (JCCE, 2020a) indicates that using a medium estimate of about 1.4 million jobs and up to USD 265 million income could be lost in Ethiopia's urban services sector in three months period since the onset of the pandemic (March 2020). (JCCE, 2020a) further feared that the construction and manufacturing sector would be severely affected by the pandemic in Ethiopia (upto 1.1 million job losses in three months period since April 2020) followed by the Service sector. Less impact on jobs was forecasted for the agriculture sector.

In that connection, we asked our sample survey participants different questions related to employment to help us understand the pandemic's effect on jobs. For the query posed to [Tel. \(ሰልጎ\) \(251-911\) 653948/\(251-913\) 550666](tel:251-911-653948) P.o.Box: (ፖ.ሰ.ቁ.)- 20460/1000 A.A. Ethiopia Email (ኢ.ሜል): ekumeraa@gmail.com, ekumaconsult@gmail.com

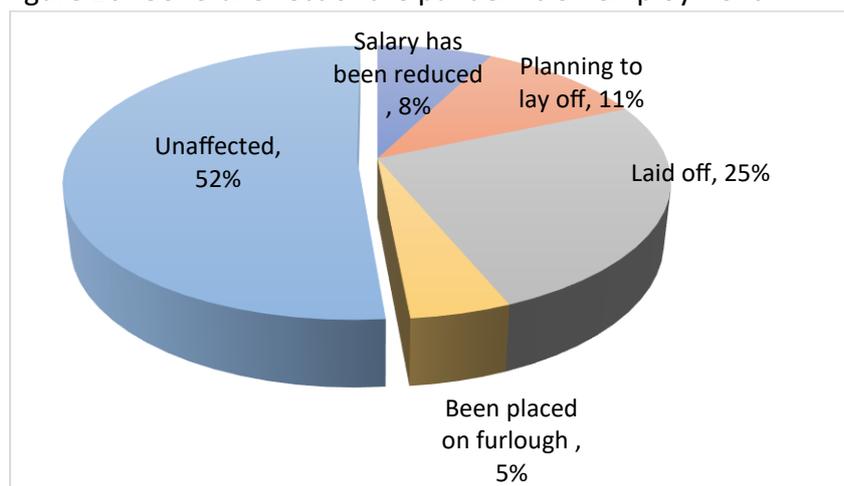
identify how the pandemic affects the level and status of employment in their industry, most replied that they have been largely unaffected (52%) except those in the agriculture sector. Others have either laid off (25%) or planning to lay off (11%). Salary reduction and furloughing employees have also been mentioned. In fact, participants from Dire Dawa FGD<sup>10</sup> mentioned that businesses in the city had to furlough their employees and/or make them work in shifts to pass through the stormy periods of the pandemic especially sustained during the state of emergency declared between April and September 2020. As also asserted by the key informant interviews conducted, the pandemic made many companies to consider laying off and/or furloughing their employees to survive the pandemic's economic effect. Employees have been absent from work due to illness or government orders and working from home and reports show that this has been reducing productivity by 20 to 60 percent.

Table 20: Effects of the pandemic on employment by sector

Description		Sector				Total
		Agriculture	Logistics/ Transport	Manuf acturing	Tourism/ Hospitality	
Salary has been reduced	Count	17	10	1	2	30
	% within Sector	45%	8%	1%	2%	
Planning to lay off	Count	18	7	16	3	44
	% within Sector	47%	6%	19%	2%	
Laid off	Count	10	63	2	26	101
	% within Sector	26%	50%	2%	21%	
Been placed on furlough	Count	3	6	2	8	19
	% within Sector	8%	5%	2%	6%	
Unaffected	Count	9	44	67	86	206
	% within Sector	24%	35%	78%	69%	
Total	Count	38	127	86	124	375

Source: Sample Survey, 2021

Figure 20: General effect of the pandemic on employment



Source: Sample Survey, 2021

<sup>10</sup> An FGD was conducted on July 22, 2021 in Dire Dawa.

The survey participants were further asked the level of percentage change if they had to lay off staff due to the pandemic. For the lion's share (50%), the reduction anticipated was slight (10% to 30%) and about 38% said they wouldn't layoff. Anticipation for the slight reduction of labor has been larger in the agriculture and tourism sectors with 62% and 63% shares, respectively. About 57% of the logistics and 50% of the manufacturing sectors stated that their level of employment was basically the same before and after the pandemic. In sum, most preferred either to slightly lay off or keep their employees with them if they had to discharge workers due to the pandemic.

About two third (66%) believe that the pandemic has not caused unemployment problem as doomily expected. Especially the majority in the logistics/transport (84%) and manufacturing (70%) operations consider the insignificant effect of the pandemic in causing unemployment problems in their sectors.

The influence of the disease on triggering casual labor shortage has also been minimal as reported by 67% of the respondents although the response varies across sectors (77% in the logistics/transport and 71% in the agriculture sectors said no shortage of casual labor due to the cause of Covid-19). The pandemic is also proved to have a weaker influence on recruitment plan as replied by the greater majority (48% said other), followed by postponement or cancellation of the existing recruitment plan (26% ) and inability to find a suitable recruitment channel (23%).

#### **4.3.6. Government Intervention/Policy/ Support Package**

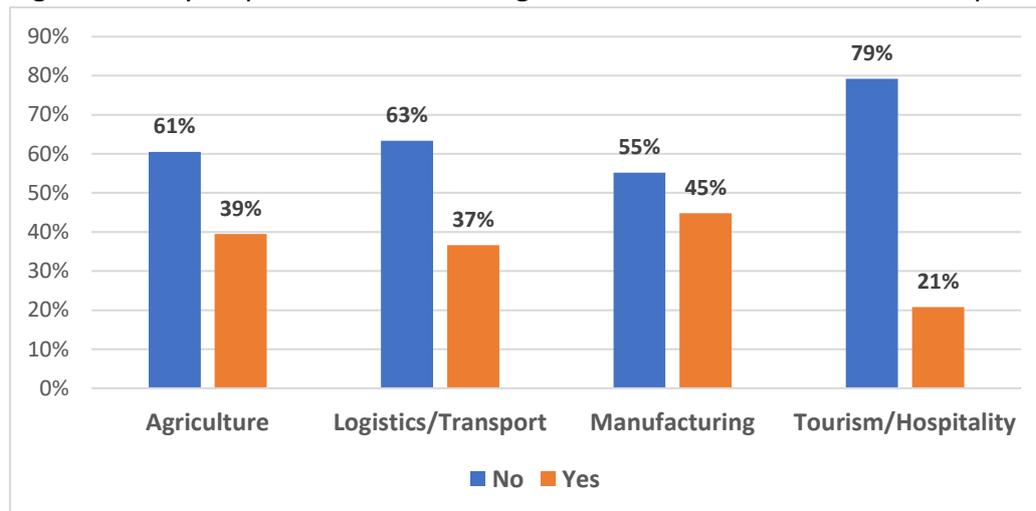
Since partial lockdown was declared in Ethiopia in early April 2020 that lived for five months, the government has been supporting the economy in diverse ways. The extent of support, however, varies from sector to sector. In fact, different bodies have been calling for support packages to help mitigate the effect of the pandemic on economic sectors (A. Geda, 2020; Tekleselassie, 2021; UN, 2020). (UN, 2020) recommends fiscal policies to commensurate the demand gap witnessed nationally and to support businesses and employment to avoid irreversible loss of productive and human capital and to minimize adverse impacts on poverty and broader social well-being. Some countries such as Hong Kong allocated about 4% of its GDP with Italy, Spain, and the UK reserved around 1.5% of their GDP for support packages to mitigate the pandemic's effect through monetary, health and non-health fiscal expenditures (JCCE, 2020a). Ethiopia reserved 3.5% of its GDP in 2020 (Mitik Beyene et al., 2020a). China, Egypt, Canada, El Salvador, Fiji, Germany, Italy, Namibia, and Philippines are some of the countries that extended substantial support to the agriculture sector (ILO, 2020a). Canada for instance allocated about 5 billion Canadian dollar to support food security. Namibia offered about 200 million Namibian dollars guarantees for low-interest loans for farmers and agricultural businesses (ibid).

The Ethiopian government has also implemented different policy measures to lessen the pandemic's effect. (Mitik Beyene et al., 2020a) identified various economic protection measures planned (and executed though not completely) by the Government of Ethiopia.

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We asked our survey participants various questions with regard to the support packages delivered and mechanisms pursued to overcome the pandemic's effect. We learnt that 66% on average haven't received any help from the government so far, with the remaining 33% accessing. Those in the tourism sector least supported while in the contrary the greatest help went to the manufacturers as illustrated in the beneath chart. A high frequency survey of firms conducted in Addis Ababa by (WB, 2021) at the wake of the pandemic (April 2020) also depicts only 2.6 percent of firms in the city have received government support, with the share declining to 0.5 percent by August.

Figure 21: Any help obtained from the government to lessen economic impact of Covid-19?



Source: Sample Survey, 2021

Tax reduction was mentioned by the greater majority (82%) as the leading type of government support to the businesses. Although negligible, other supports such as grants, market promotion/advertising, facilitating access to the domestic market, and the like have been offered by the government.

There is a varying degree of satisfaction level by the government in response to mitigating the pandemic's effect. For about one-third (29%), the response has not been satisfactory at all while close to 23% said they are satisfied. The rest reflected that they are moderately satisfied (13%), very satisfied (1%) or neutral (35%). Despite the level of support, most are either confident (42%) or neutral (28%) that their business can recover from the Covid influence. About 18% have no confidence on the recovery of their business at all while around 5% are definitely affirmative on the recovery. Nearly 70% further said that haven't identified any new business opportunities that might have been possible with the new situation.

The extent of crisis management is another dimension investigated by the survey. Most of the survey respondents think they have either averagely (25%) or nicely (60%) managed the crisis caused on their firm by the pandemic. The rest responded insufficient (7%), largely insufficient (3%) and on the contrary very good (6%) handling of the predicament. Firms have been diversely responding to the crisis in a number of ways although the degree of

intervention varies. The greater majority (52%) said prioritizing the safety and well-being of employees has been their top precedence. Adjusting their long term strategy (28%), seeking financial support from government or other sources (18%), revising annual budget (11%), changing production levels (10%), and other measures such as addressing labor shortages and investing in digital technology.

According to the interviewees, the crisis management enhanced the transversal collaboration (between faculties and departments) to 'some extent for most (65%) compared to those who said 'to a great extent' (7%), 'very little' (16%) and 'not at all' (11.5%). In a similar tone, the communication among and between all staff has been 'to some extent' effective for the majority during the pandemic (68%). Those who said 'to a great extent' and 'very little' comprise 13% and 12%, respectively.

Again for the majority, the pandemic affects implementation of their strategic plan (63%) and their future institutional outlook (67%) 'to some extent'. As to whether the collaboration with authorities has been changed due to the pandemic, about half (49%) responded that there has never been any alteration. The remaining half gave variegated responses: for 19%, the collaboration has increased, for 12% the relation decreased, and for 7% the cooperation has significantly raised. About 2% said the collaboration significantly decreased and for 10.5%, this is not applicable to them.

There is varied response regarding the extent of collaboration with national and foreign authorities. Alliance with national authorities largely remain the same for the leading sum (50%), while for some the collaboration increased (20%) and for others the effect has been the contrary/decreased (12%). Public sector participants from Adama FGD also asserted this phenomenon. As per a participant from the city's Trade bureau, sector offices such as trade bureaus have even been liaising with financial institutions to extend loan repayment period on behalf of the business community debtors. As to relations with foreign authorities, 27% of the sample survey respondents reported the collaboration deteriorated while for 24% it has been the same level. About 34% replied this doesn't apply for them.

As to the policy expectations from the government to overcome the difficulties, most expect more than two interventions. The most frequent responses include tax payment postponement (43%), access to low interest loans (37%), grant (30%), provision of working capital to firms (24%), delaying bill payments (15%) and wage subsidy (9%). On top of the sample survey result, it is worth pointing hereunder what had been suggested by Adama FGD participants to contain the negative impact of similar pandemics (including Covid-19) in the future:

- Devise mechanism for better local resources exploitation and public mobilization.

- Strengthen the collaborative initiative burgeoned among the society, the business community and the government.
- Planning ahead and setting aside an emergency budget on regular basis to deal with such unexpected incidents.
- Take lessons from the incidents so far happened and draw policy options. For instance, the Ethiopian government partial lockdown initiative has helped the economy to quickly recover and back on track except some other endogenous and exogenous factors slowing the economic performance.
- Some of the Covid protocols such as sanitation measures are long lasting beyond the pandemic's era. These are good lessons to get acculturated indefinitely as it also helps for image building.
- Social safety net programs prove their massive importance during natural and manmade catastrophes as observed in the current pandemic's case.
- Digitization and expanding use of digital technology in the long run period is rewarding.

Dire Dawa FGD participants primarily suggested training and awareness, enforcement and expanding vaccination as the prime measure to contain the effects of the Covid-19 pandemic.

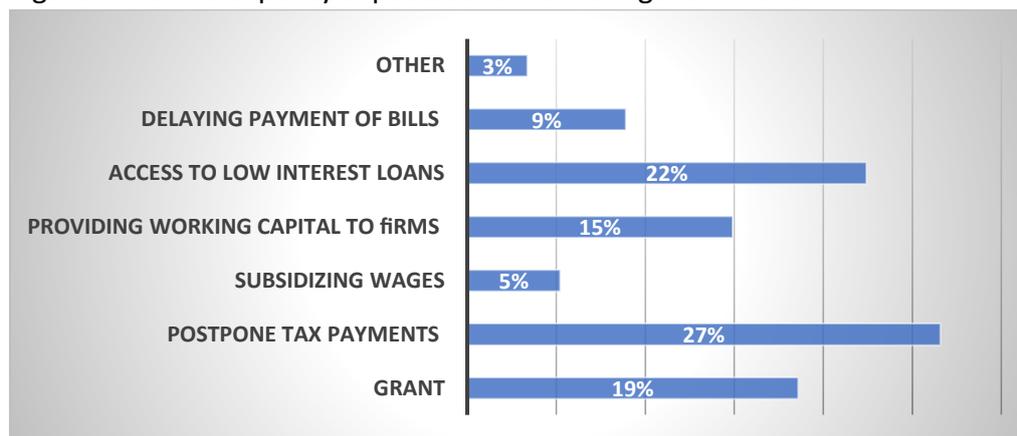
Use of technology is the top recommendation echoed in Addis Ababa FGD<sup>11</sup>. As one of the participants put:

“Technology, Research and Development (R and D) must be the focus of the government, and we must all be technologically savvy, so that a pandemic like this may be controlled in the future without causing a massive calamity. Pandemic like this require technological apparatus and, the government should concentrate on developing a digital economy. Furthermore, our institutions must be customer-friendly; private sector institution capacity is inefficient when compared to government capacity. This is largely due to the government's focus on providing institutional capacity to the public sector while neglecting the private sector. For example, Ethiopian Management Institute (EMI) has never given an institutional capacity-building program to the private sector, but merely the public sector.”

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<sup>11</sup> An FGD composed of the business community and sector offices participants was conducted in Addis Ababa on August 20, 2021.

Figure 22: General policy expectations from the government



Source: Sample Survey, 2021

Table 21: Policy expectations by sector

Policy expectations		Sector				Total
		Agriculture	Logistics/ Transport	Manufacturing	Tourism /Hospitality	
Grant	Count	28	70	10	13	121
	% within Sector	74%	47%	11%	10%	
Postpone tax payments	Count	21	55	11	86	173
	% within Sector	55%	37%	13%	69%	
Subsidizing wages	Count	10	3	1	20	34
	% within Sector	26%	2%	1%	16%	
Providing working capital to firms	Count	24	38	23	12	97
	% within Sector	63%	26%	26%	10%	
Access to low interest loans	Count	24	44	57	21	146
	% within Sector	63%	30%	66%	17%	
Delaying payment of bills	Count	12	8	3	35	58
	% within Sector	32%	5%	3%	28%	
Other	Count	0	12	4	6	22
	% within Sector	0.0%	8%	5%	5%	
Total	Count	38	148	87	125	398

Source: Sample Survey, 2021

The firms anticipate various measures by their own to address the negative economic impact brought by the pandemic. The most frequent response for this has been adjusting operations to respond to Covid-19 Pandemic (45%). Those who are not sure of taking any measures or have no plan to take measures account for 35% and 16%, respectively. Other anticipations include looking for loans or other credit measures, reductions in hours of operations and others.

The sample survey participants were additionally requested to reflect their biggest potential opportunity for their firm in the future. Operations improvements (41%), Growth in existing markets (36%) and changes in the business and/or regulatory environment (26%) were the foremost responses given. Other replies include opening new business lines (14%) and market

segments (16%), business expansion (8%), expanding geographic footprint (7%), and others. About 96% of the respondents believe that the pandemic has no potential positive outcome at all. Despite such outlooks, and as also asserted by the literature, the pandemic has had some positive effects. (Kumar et al., 2020; Madurai Elavarasan & Pugazhendhi, 2020) narrated that the pandemic brings less air pollution following the slowdown of various transport and industrial activities. FGD participants in Adama city<sup>12</sup> have identified the following plus sides of the Covid-19 pandemic since its emergence in March 2020 in the country.

- It makes people to help each other in terms of food provision to the needy/homeless persons, maintaining dilapidated houses, etc.
- Sanitation culture improved.
- Market and employment opportunity to some sectors such as sanitary materials producers and distributors.
- It also makes the government, the business community and society collaborate and work closely.

Participants from Addis Ababa FGD also mentioned the likely positive effects of the pandemic such as better technological utilization. As per the participants, the city administration's recent tax recent system and specifically the recently launched SMS text-based tax burden notifications to the clients are worth mentioning. In terms of sanitation, people's lifestyles are also changing. Unlike in the past, when people were accustomed to sanitation problems, now they are not. The rising entrepreneurial moves towards producing sanitization items and face masks also raised as positive effects of the pandemic.

The salient features of the sample survey results are summarized in the box hereunder.

Table 22: Key findings of the sample survey

Major Issue/impact	Key findings
<b>Profile</b>	<ul style="list-style-type: none"> <li>● 400 samples were taken from across five cities of Ethiopia, the majority of which from Addis Ababa (301), followed by Dire Dawa (32), Hawassa (25), Adama (23) and Bahir Dar (19).</li> <li>● <i>Legal ownership: Sole proprietorship (66%) and private limited company (29%).</i></li> </ul>
<b>Financial impact</b>	<ul style="list-style-type: none"> <li>● 66% encountered a cashflow shortage. Loans and delay payments used as key coping mechanisms for financial shortages.</li> <li>● About 59% haven't approached financial institutions for loan assistance. Those 41% approached are: dominated by</li> </ul>

<sup>12</sup> An FGD was conducted in Adama city on July 27, 2021 with representatives from the public sector, Adama and Oromia Chamber of commerce and sectoral association as well as the business community.  
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Major Issue/impact	Key findings
	<p>manufacturing sector operators; contacted commercial bank of Ethiopia; sought loan assistance for working capital; and most got favorable responses.</p>
<b>Impact on inputs</b>	<ul style="list-style-type: none"> <li>• Key challenges faced with the logistics: total disruption of supply (32%), border closure and delays (30%), delays in freight transportation (29%), and supply shortages (24%), among other multiple responses. <ul style="list-style-type: none"> <li>○ These challenges vary from sector to sector. The logistics/transport sector primarily faces disruption of supply (70%); the manufacturing sector encountered delays in freight transportation (60%) and border closures and delays (39%); the tourism/hospitality sector faced border closures and delays (30%), total disruption of supply (26%), and supply shortages (22%).</li> </ul> </li> <li>• The great majority faced shortages with both national (91%) and international (79%) suppliers.</li> </ul>
<b>Impact on production/service and productivity</b>	<ul style="list-style-type: none"> <li>• ~77 percent encountered a drop in production/service. <ul style="list-style-type: none"> <li>○ Those in the logistics sector were severely affected and the manufacturing sector operators encountered the least reduction.</li> <li>○ Reasons for production losses include weakened demand, restrictions emplaced by local law enforcement impacting operations, input shortage and high cost of inputs among others in their order of importance.</li> </ul> </li> <li>• About 86% reported a decline in business growth (more severe in the tourism sector)</li> <li>• Despite drops in production and business growth, 65% didn't stop operation due to the pandemic.</li> <li>• Aligned with production loss, most encountered business performance deprivation in terms of revenue loss (77%), sales abatement (72%), customers cutback (77%), material input cost surge (66%), equipment cost increment (68%), labor cost rise (56%), other operating costs hike (65%), and market price escalations (57%).</li> <li>• Ways the pandemic affecting business: reduced access to domestic customers (53%), profit loss (39%), domestic supply</li> </ul>

Major Issue/impact	Key findings
	<p>chain problems (27%), reduced access to overseas customers (25%) , and bankruptcy (22%) in their order of importance from among multiple responses given.</p> <ul style="list-style-type: none"> <li>○ Top three challenges faced due to the pandemic: drop in demand for products/services (60%), reduction of opportunities to meet new customers (47%), and business closure (23%).</li> <li>● Expected impact of the pandemic on business operations: most say no changes would manifest in terms of debt level (58%), business tax (52%), subsidy (87%), and workforce (61%). Only reduction in revenue expected by the majority (89%).</li> <li>● <i>The effect of social distancing on business operations and turnover: largely minimal (26%) or moderate (41%).</i></li> </ul>
<p><b>Impact on Employment</b></p>	<ul style="list-style-type: none"> <li>● Comparable numbers either maintained (34%) or slightly decreased (32%) their staffs after the onset of the pandemic. Adding those saying ‘not applicable’ (27%) about employment reduction, we can safely say that most (61 percent) haven’t laid off their employees.</li> <li>● Agriculture and Tourism sectors relatively discharge more compared to the manufacturing and transport/ logistics sectors.</li> <li>● Percentage change if they had to lay off staff due to the pandemic: The lion’s share (50%), said ‘slight’ (10% to 30% of their employees) and about 38% said they wouldn’t layoff.</li> <li>● About two third (66%) believe the pandemic has not caused unemployment problem.</li> <li>● Most (67%) consider the influence of Covid-19 on triggering casual labor as minimal.</li> </ul>
<p><b>Views, Expectations and Government Intervention/Policy/ Support Package</b></p>	<ul style="list-style-type: none"> <li>● About 66% haven’t received any help from the government so far. <ul style="list-style-type: none"> <li>○ Those who received support said Tax reduction as the leading and dominant type of assistance (82%).</li> <li>○ Varying satisfaction level on government response for the pandemic: not satisfied (29%), neutral (35%), satisfied (23%), moderately satisfied (13%), very satisfied (1%). Only 24% stated they are satisfied or highly satisfied.</li> </ul> </li> </ul>

Major Issue/impact	Key findings
	<ul style="list-style-type: none"> <li>• The lion’s share (42%) feel confident about their business recovery from the pandemic.</li> <li>• About 85% believe that the managed the crisis caused on their firm by the pandemic. <ul style="list-style-type: none"> <li>○ Major mechanisms pursued to manage the crisis include: prioritizing safety and well-being of employees (52%); Adjusting the firm’s long term strategy (28%); seeking financial support from different sources (18%), revising annual budget (11%), and changing production levels (10%).</li> </ul> </li> <li>• The pandemic affects implementation of strategic plan (63%) and future institutional outlooks (67%) ‘to some extent’.</li> <li>• For most collaboration with authorities either remained the same (49%) or improved (19%).</li> <li>• Policy expectations from the government include, but not limited to, the following: tax payment postponement (43%), access to low interest loans (37%), financial assistance/grant (30%), provision of working capital to firms (24%), delaying bill payments (15%) and wage subsidy (9%).</li> <li>• Own (firm level) anticipated measures to contain effects of the pandemic on businesses: adjusting operations to respond to the disease (45%); not sure/no plan of taking any measures (51%). <ul style="list-style-type: none"> <li>○ About 70% haven’t identified any new business opportunities to deal with the new situations.</li> </ul> </li> </ul>

#### 4.4. Covid-19 & the Manufacturing sector

##### 4.4.1. Ethiopia’s Manufacturing Sector at a glance

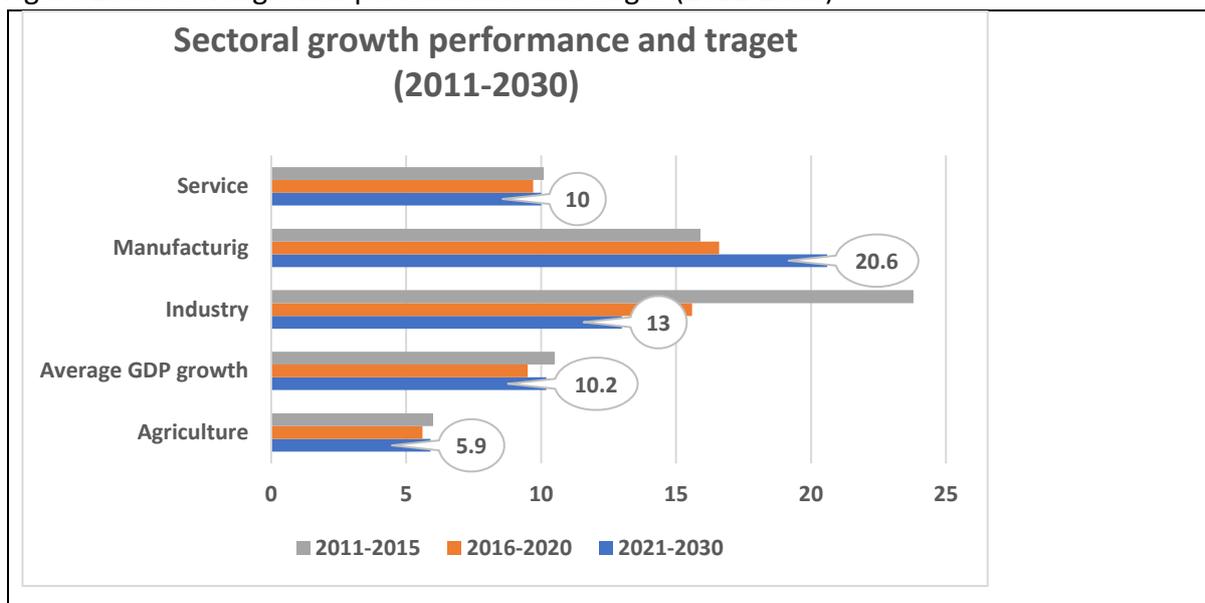
The private sector remains nascent in Ethiopia and is constrained by structural challenges. Evidence suggests that the private sector is crowded out by the public sector, notably in access to finance. Credit provided to the private sector continues to represent a small share (36%) of domestic credit, while credit to the public sector (state-owned enterprises and the central government) represents more than 63% (FDRE, 2020). The recent ten-year perspective plan for the period of 2020-2030 (PDC, 2021) recognized the role of the private sector and aims to make the private sector the true engine of economic growth; and strengthening public-private partnerships.

Well beyond all, Ethiopian government reports confirm that the Ethiopian economy kept on enlisting prominent development even when the world faces challenging macroeconomic and social conditions owing to the outbreak of the Covid-19 pandemic. A case in point (NBE, 2020a), in the 2019/20 fiscal year, real GDP grew by 6.1 percent compared to the 3.5 percent average growth estimated for Sub Saharan Africa. The relative output share of different sectors of the Ethiopian economy has changed dramatically over the past twenty years. Agriculture remains important, but its share of total economic output has decreased from 66% in 1991 to just under 35% in 2018. In contrast, the service and industry sectors' shares of total output have increased to about 39% and 27%, respectively (FDRE, 2020; PDC, 2021).

In Ethiopia, the manufacturing industry began to appear in the 1950's much earlier than in many of the Sub-Saharan African countries while modern industries began to emerge in the second half of the 1950s aiming at substituting imports (FDRE, 2013; Oqubay, 2018a). The vision of the thirteen-year industrial development plan strategy 2011-2033 is stated as "building an industrial sector with the highest manufacturing capability in Africa which is diversified, globally competitive, environmentally-friendly, and capable of significantly improving the living standards of the Ethiopian people by the year 2025" (FDRE, 2013).

The overall goal of the industrial development strategy is to bring about structural change in the economy through industrial development. Specifically, it is aimed at by increasing the share of the industry sector as percent of the GDP from the current 13% to 27% by 2025, and also increasing the share of the manufacturing sector as percent of the GDP from the current 4% to 17% by the year 2025 (FDRE, 2013).

Figure 23: Sectoral growth performance and target (2011-2030)



Source:(PDC, 2021)

As can be seen above, manufacturing is expected to register a tremendous growth by the year 2030. According to the (CSA, 2018a) report, the total number of large and medium scale manufacturing industries reported was 3,623. About 39% of the manufacturing industries were located in Addis Ababa, followed by Oromia with more than 29% and Amhara with about 14% of the industries. More than 26% of the manufacturing industries fell in the category of food products and beverages, followed by nonmetallic mineral products with about 18% and the furniture industry with more than 13%. The number of persons engaged in manufacturing industries was nearly 298,510 in all the manufacturing industries surveyed in 2016/17.

Studies and reports (FDRE, 2020; Oqubay, 2018b; PDC, 2021) indicate that manufacturing is the main engine of structural transformation and sustained growth for developing countries. On account of this, Ethiopia has developed an ambitious industrial policy and invested in the construction of industrial parks, with a model of “plug and play” for foreign investors. This strategy has provided some encouraging results in terms of attracting FDI and improvement in exports. However, Ethiopia’s manufacturing sector is still far from being an engine of economic transformation, as it contributes just under 6% of GDP, plays a marginal role in exports, output and its share in employment remains very low (FDRE, 2020; Oqubay, 2018b).

As per (NBE, 2020a) growth and percentage distribution of manufacturing were 18.4, 24.7, 5.5, 7.7, and 7.5 in 2016, 2017, 2018, 2019, and 2020, respectively. Similarly, the FDRE Planning and Development Commission (PDC, 2021) report indicates that the average GDP contribution of the manufacturing sector in 2010-2015 was 15.1% while it averaged 13% in the 2015-2021 period.

Yet, the Ethiopian manufacturing sector has been facing serious bottlenecks to grow. As per the (CSA, 2018a) report, about 47% of all manufacturing industries reported a shortage of supply of raw materials as the first major operational problem faced during the survey year. More than 5% of all the manufacturing industries reported no operational problems faced. A little more than 14% of the industries reported the absence of demand for products as the first major operational problem faced. Of those that reported shortage of supply of raw materials as a first major operational problem faced more than 36% were from the food and beverages industrial group and more than 14% from the non-metallic mineral industry group.

Table 23: Total number of industries and value-added at a basic price

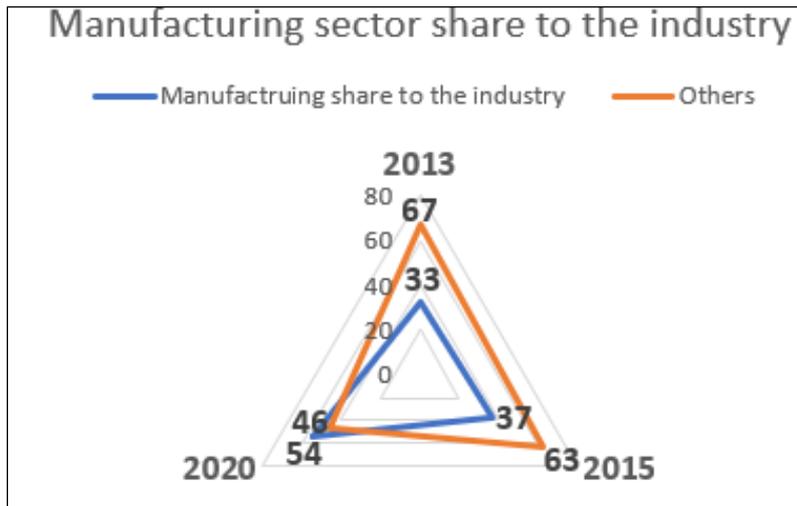
S.n	Industrial Group	Total Number of Medium and Large Scale Enterprises	Value-added at a basic price (in '000birr)
1.	Food products and beverages	947(26.14%)	24,137,987
2	Tobacco products	1 (0.03%)	1,827,733
3	Textiles	290 (8.0%)	1,787,674
4	Wearing apparel except fur apparel	102 (2.82%)	7,765,609
5	Tanning and dressing of leather footwear, luggage and handbags	159 (4.39%)	3,052,918
6	Wood and of products of wood and cork except furniture	76 (2.10%)	265,895
7	Paper, paper products and printing	137 (3.78%)	6,166,610
8	Chemicals and chemical products	148(4.09%)	3,554,832
9	Rubber and plastic products	261(7.20%)	4,805,628
10	Other non-metallic mineral Products	648(17.89%)	11,785,617
11	Basic iron and steel	81(2.24%)	3,599,556
12	Fabricated metal products except machinery and equipment	223(6.16%)	2,324,10
13	Machinery and equipment n.e.c.	37(1.02%)	451,889
14	Motor vehicles, trailers & semitrailers	14(0.39%)	2,077,370
15	Furniture	499(13.77%)	6,678,881
	<b>Total</b>	<b>3623</b>	<b>80,282,299</b>

Source(CSA, 2018a)

As depicted above, food products and beverages industrial group was found to be the largest in the country in terms of number and value-added at a basic price. Yet as per (CSA, 2018a) survey report of all manufacturing industries reporting first major operational problems, more than 29% were from the food and beverage industry followed by the furniture industry more than 15%, and the non-metallic mineral industry more than 9 %, in the same order.

On the other hand, the figure underneath depicts the expected industry structure in terms of the manufacturing sector and other non-manufacturing sectors. Consequently, the share of the manufacturing sector in the industry had been showing a consistent improvement, showing an increment from 33% in 2013 to 54% in 2020.

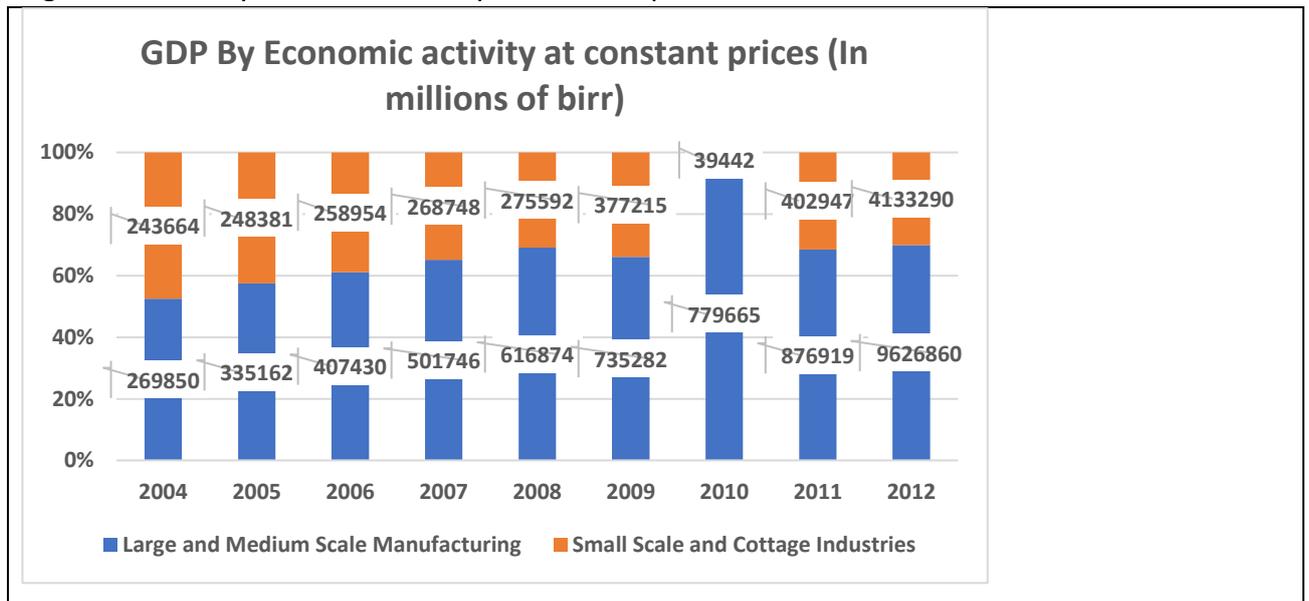
Figure 24: Manufacturing sector share to the industry



Source: (FDRE, 2013)

As depicted above the manufacturing sector share with the industry showing a 33%, 37%, and 54% in 2013, 2015, and 2020 respectively. On top of this, by the year 2020, the manufacturing share of the industry surpassed the other's share of the industry.

Figure 25: GDP by economic activity at constant prices



Source (NBE, 2020a)

Considering manufacturing sector GDP contribution, the role of large and medium scale manufacturing is higher than the small-scale industries.

Table 24: Manufacturing growth rate at different policies scheme

	2005-2010 (PASDEP)	2010-2015 (GTP-I)	2015-2020 (GTP-II)	2021-2030 (projected)
Manufacturing	10.0	15.1	17.9	20.6
Industry	10.1	19.8	19.9	13.0
GDP	11.0	10.1	10.1	10.0

Source:(CSA, 2018a; NBE, 2020a; PDC, 2021)

When we see selected manufacturing subsectors' growth performance and contributions to the macroeconomy, it is not uncommon to find growth performance and contributions. A case in point, the government of Ethiopia has developed initiatives to address enabling environment challenges that hinder agro-processing, export growth, and import substitution, particularly in the country's food and beverage processing industry. Despite being the third-largest contributor to the industrial sector, production levels in the food and beverage processing industry (FBPI) are far below demand, leading to an 18% increase in food and beverage imports between 2012 and 2016. The government has prioritized import substitution in the wheat and sunflower value chains (FDRE, 2020).

Food and beverage is a major manufacturing sub-industry, employing around 843,000 people in 2013, and an estimation of 1,4 million jobs in 2018. Employment in the food and beverage industry is forecasted to grow by 86% by 2025, creating a total of almost 1.2 million new direct jobs and 2.7 million indirect jobs. With an increased focus on industrialization in the country, there are growing opportunities in agro-processing for those who learn modern techniques, and the potential for up to 400,000 new jobs in agro-processing industrial parks alone (FDRE, 2020).

Table 25: Category of food and beverage industry

S.No.	Category of Food and Beverage Industry	Number	Percent
	Production, processing, and preserving of meat, fruit, and vegetables	22	2.38
	Manufacture of vegetable and animal oils and fats	24	2.60
	Manufacture of dairy products	16	1.73
	Manufacture of grain mill products	327	35.43
	Manufacture of prepared animal feeds	26	2.82
	Manufacture of bakery products	291	31.53
	Manufacture of sugar and sugar confectionery	32	3.47

S.No.	Category of Food and Beverage Industry	Number	Percent
	Manufacture of macaroni and spaghetti	29	3.14
	Manufacture of food products n.e.c.	50	5.42
	Distilling, rectifying, and blending of spirits	11	1.19
	Manufacture of wines	6	0.65
	Manufacture of malt liquors and malt	14	1.52
	Manufacture of soft drinks & production of mineral water	75	8.13
	<b>Total</b>	<b>923</b>	<b>100</b>

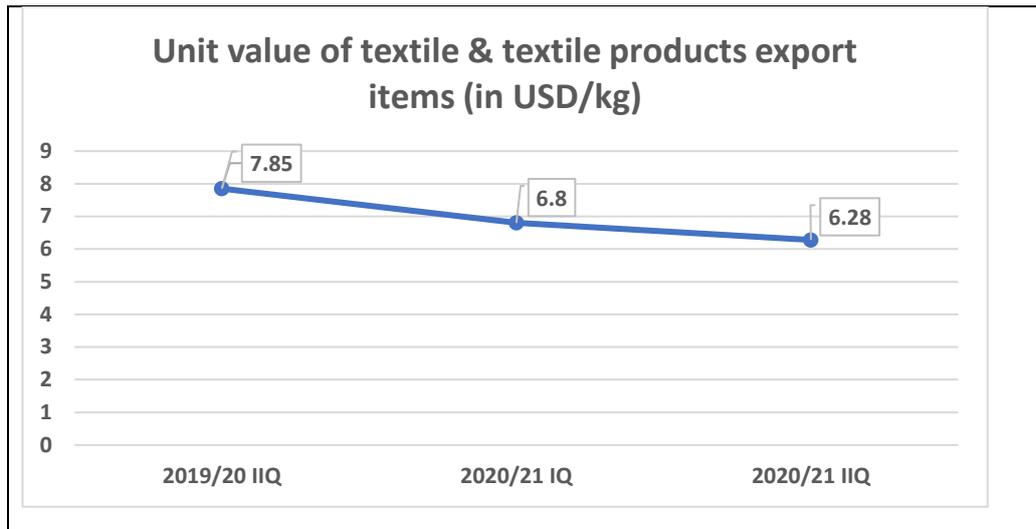
(CSA, 2018a)

Food and beverages manufacturing, which employs about 39% of the employees in the large and medium scale manufacturing sector, may also be affected due to a reduction in production as a result of lack of imported raw materials, which constitutes 33% of its total input (CSA, 2018a).

The other sector that has become a top priority for Ethiopia as part of its goal to become a middle-income country by 2025 is textile and garments. The key objective is to make the sector globally competitive and to bring the necessary structural transformation to the nation's economy to export industrial outputs, create thousands of jobs, attract much-needed foreign currency and above all, contribute to poverty reduction. The main activities of these industries include spinning, fabric formulation, dyeing, finishing, and sewing.

Several development plans have prioritized the textile and apparel sector due to its labor intensity and high export potential. Spurred by government incentives, FDI in textiles has increased over the past decade growing by 4.4% in 2018 alone. In 2016, there were 20 international garment factories in Ethiopia all of which sold 100% of their pieces to exporters. Government and private institutions have invested substantially in textile-focused, export-oriented industrial parks (FDRE, 2020). Employment in the textiles and apparel industry is estimated at 798,752 in 2018 and is forecast to grow by 86% through 2025 (FDRE, 2020).

Figure 26: Unit value of textile and textile products export items



Source (NBE, 2020a)

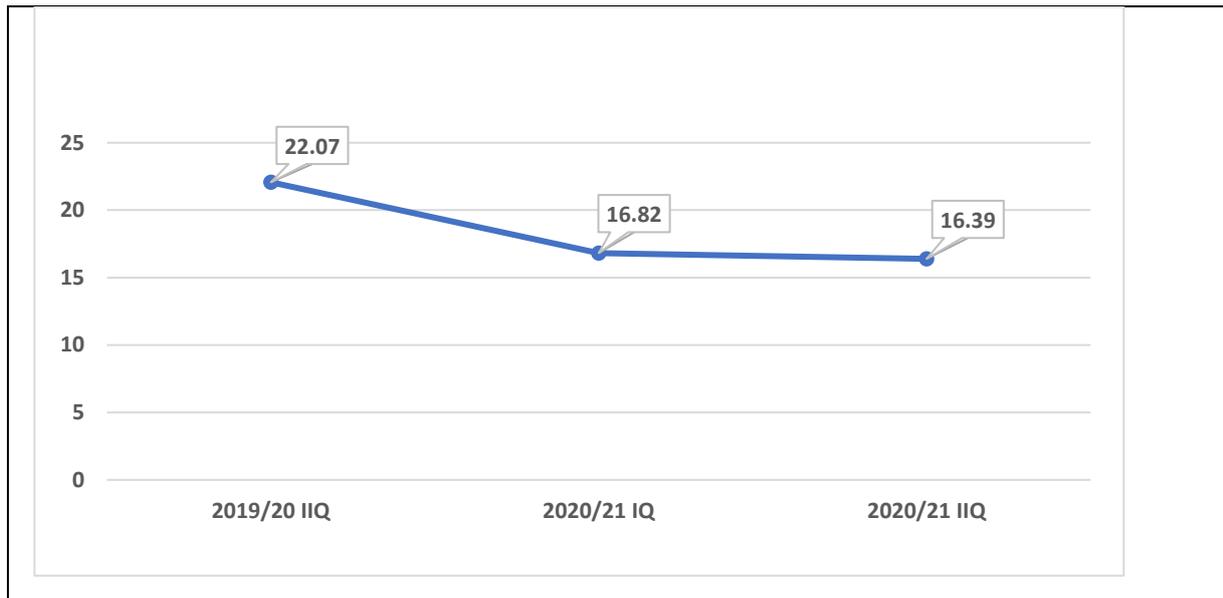
As itemized above after the Covid-19 pandemic arrival the unit value of textile and textile products export items (in USD/kg) has been showing a significant decline from 7.85 USD/kg in 2019/20 second quarter to 6.28 USD/kg in 2020/21 second quarter with a percentage change of (-19.99).

The other sub-sectors of manufacturing included in the sample survey were the Leather and leather industry. The leather subsector has three major industrial components. These are tanneries, footwear manufacturers and leather products manufacturers. There are large and medium-size plants in the formal sector and micro enterprises operating in the informal sector of the economy, particularly in footwear manufacturing (FDRE, 2013).

Ethiopia is still emerging as a leading exporter of semi-processed and finished leather products on the continent. Despite the recent increase in the level of exports, Ethiopia is still lagging in terms of processing finished leather. The country exports about half of its finished leather; the rest goes to leather product manufacturers. However, FDI manufacturers import finished leather for their production. Approximately 32,000 people worked in the leather sector in 2013, and this number is estimated to have grown to roughly 53,000 in 2018. This accounts for just 2% of total employment in manufacturing. Employment in the leather industry is forecasted to grow by 85% through 2025 (FDRE, 2020).

Covid-19 has made the year 2020 challenging for almost every sector of business, the leather industry no exception. The leather industry of Ethiopia is one of the major contributors to the country's GDP and employment growth. In fact, there are a good number of people who are working directly or indirectly in this sector.

Figure 27: Unit value of leather and leather products (USD/Kg)



Source: (NBE, 2020a).

As stated above after the Covid-19 pandemic arrival the unit value of leather and leather products export items (in USD/kg) has been showing a significant decline from 22.07 USD/kg in 2019/20 second quarter to 16.39 USD/kg in 2020/21 second quarter with a percentage change of -25.73.

#### 4.4.2. The impact of the Covid-19 pandemic on the manufacturing sector

The Covid-19 (coronavirus) pandemic has reshaped the global economy and daily lives of people across the entire world. Albeit, some (Tekleselassie, 2021) argued that countries in Africa in general and Ethiopia, in particular, haven't been affected as seriously as some of the countries in Europe in terms of cases and deaths. The coronavirus outbreak is causing widespread concern and economic hardship for consumers, businesses, and communities across the globe. The situation is fast-moving, with widespread impacts.

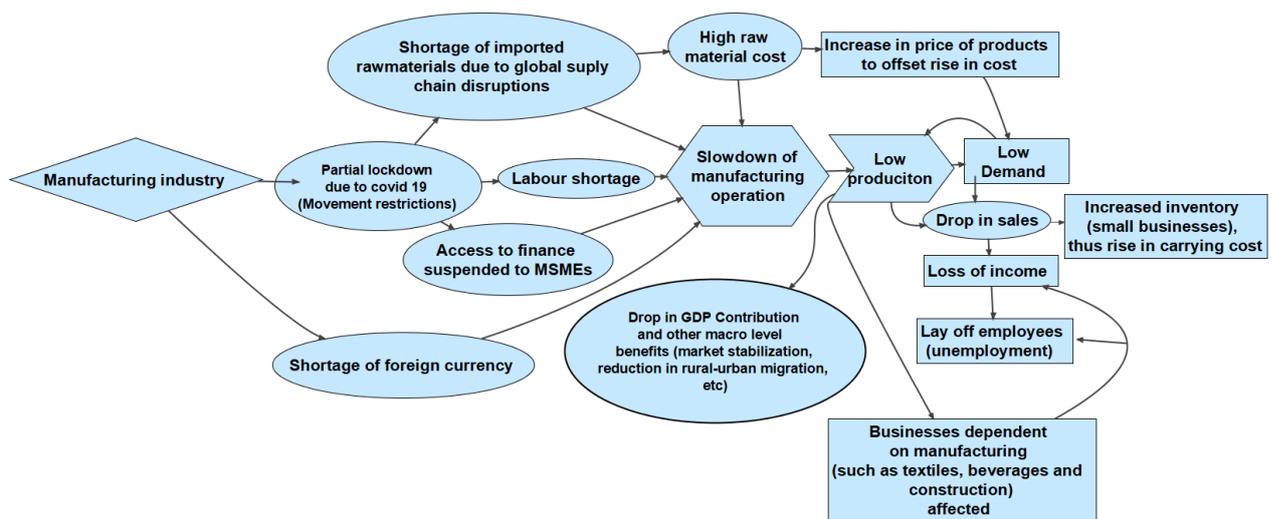
Globally in general and in Ethiopia in particular, the Covid-19 pandemic has been ushering in a host of challenges on manufacturers. The problem aggravated in the manufacturing sector mainly due to the following three interrelated problems. First, the sector entirely depends on jobs that cannot be carried out remotely. This is to say that, the sector is especially vulnerable due to the fact that a significant number of its workforce is employed in on-site jobs that cannot be done remotely. Second, on top of this, given the nature of the industry, it is hardly possible to create social distancing in workplaces and contribute to the prevention of mechanisms. Third, because of global supply chain disruptions, manufacturers are highly susceptible. As a result, affecting suppliers by driving reduced demand for materials and components and supply chain partners may experience their own challenges and may not be able to fulfill orders on time or at all during the crisis (Brinca et al., 2020; Díaz-bonilla, 2020;

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Gajdzik & Wolniak, 2021; Maital & Barzani, 2020). Doubtlessly sectors and sub-sectors will not be impacted by the pandemic equally. As per (UN, 2020), sub-sectors such as textiles and garments (T&G) and leather and leather products will be hit hard. Yet, the Agro-food processing and beverages sub-sector will be relatively less impacted.

The Covid-19 pandemic has caused direct impacts on income due to premature deaths, workplace absenteeism, and reduction in productivity and has created a negative supply shock, with manufacturing productive activity slowing down due to global supply chain disruptions and closures of factories (Pak et al., 2020). The scale of Covid-19 pandemic disruption has been affecting almost all sectors, and manufacturing is no exception. In fact, the coronavirus impact on manufacturing has already had implications on employment, input supply, finance, production, demand and supply chains etc. Based on (Lemi, 2020) perspectives, we formulated the ensuing schematics to better visualize the likely impact of the pandemic on manufacturing industries.

Figure 28: Impact of Covid-19 pandemics on manufacturing industries



Source: Own schematics based on (Lemi, 2020)

To address all of the study objectives, we have surveyed 87 randomly chosen manufacturers (see the methodology part on chapter two). Most respondents were firm owners or firm managers 33% and 40%, respectively. On top of this, in our sample, most of the respondents (75%) were male and 43% of the respondents were private limited companies, and 51% were found to have sole proprietorship legal status. All of the sample firms' origins were found to be domestic. Approximately 70% of the surveyed manufacturing firms reside in Addis Ababa due to the reasons explained in the methodology part of the study.

The subsequent section, therefore, discusses and presents the results of the survey conducted for this study together with some empirical findings. To this end, the section has

been framed under four basic categories namely financial, employment, input/production, and policy responses impact of the Covid-19 pandemic on the manufacturing sector.

#### **4.4.2.1. Financial Impact**

The Covid-19 pandemic has caused unprecedented financial and non-financial challenges for businesses. Hence, the respondents were asked different questions to gauge their view on the financial impact of the Covid-19 pandemic on sectors they have been engaged in.

To reveal firms' monetary delicacy after the pandemic, we posed two inquiries. The main inquiry posed was "Has the impact of the pandemic jeopardizing the financial sustainability of the company?". We find that an overwhelming 60% of firms are somewhat concerned about the future of the institution. The subsequent inquiry posed was "Have you faced difficulties with the shortage of cash flow so far due to Covid-19?". 65% of firms reported that they have so far been confronting a shortage of cash flow, indicating the vulnerability of the manufacturing sector to the Covid-19 pandemic.

Doubtlessly, the lockdown has also caused financial problems for the firms concerning the debt. Hence, the respondents were asked to reflect on the impact of Covid-19 on their business debt expectation. The majority (40%) are expecting the debt to be increased due to the Covid-19 pandemic. Manufacturers are facing continued downward pressure on demand, production, and revenues as the Covid-19 pandemic intensify. Additionally, many are facing cash-flow liquidity challenges and difficulties in managing debt obligations.

On the other hand, according to the survey results, 62 percent of a total of 87 surveyed manufacturing firms' total revenue has been decreased, while nearly 14 percent confirmed that their total revenue has significantly been decreased. In contrast, only 11 percent saw a possibility for an increase in revenue. The expected impact on revenue/profit was grouped into decrease (loss in revenue by up to 50 percent), significantly decrease (loss of above 50 percent), and increase (by any amount). Hence, more than 35 percent of a total of surveyed manufacturing firms expect an extreme drop in revenue/profits by a loss of above 50 percent. In contrast, only 8 percent of the respondents are expecting somehow increase in revenue/profit.

Unexpectedly, based on the survey result the respondents are confident enough their business will recover. Using a scale of 1 to 5 they were asked their level of confidence that their business would recover. Hence, the majority (nearly 50%) anticipate their business will confidently recover. Only 10% anticipate that their business will not recover at all.

On top of this, the manufacturers were asked how they do label the pattern of growth trend following the Covid-19 pandemic. Hence approximately 80% of respondents affirmed

that their development pattern has been falling since the outbreak. To mitigate financial related impacts of the pandemic the largest mortgage provider (Commercial Bank of Ethiopia) introduced a three-month (April to June 2020) debt relief on mortgages, for affected clients.

#### **4.4.2.2. Impact On Employment**

One of the impacts of the Covid-19 pandemics has been unemployment and layoffs. Sustainable job creation is a critical challenge if Ethiopia is to meet its objective to become a middle-income country by 2025. High levels of subsistence employment, widespread (and minimally productive) self-employment, and very low levels of wage employment characterize the labor market in Ethiopia (FDRE, 2020). As (CSA, 2018a; Oqubay, 2018a) noted manufacturing is often thought of as the engine, heart, and soul of a country's economy, and is critical in employing a huge part of the labor force and producing materials of strategic importance.

As per (ILO, 2020b; JCCE, 2020b) the estimation of the Ethiopian Job Creation Commission, Ethiopia has suffered 14% job loss in the manufacturing sector alone due to the Covid-19 pandemic. Relatedly, a multitude of studies (Goshu, Ketema, et al., 2020; ILO, 2020b; JCCE, 2020b; Tekleselassie, 2021), indicates that up to 727,000, 1.41 million or 2.5 million jobs would be threatened under low, medium, and high impact scenarios, respectively in Ethiopia.

More specifically, the FDRE Planning and Development Commission (PDC, 2020) estimated the impact of the Covid-19 pandemic on economic growth and urban labor market using a SAM multiplier analysis and system dynamics for two scenarios (moderate and severe). They show that 705,000 or 1.57 million jobs would be threatened in the moderate and worst-case scenarios, respectively. On top of this, economic growth would decline from the baseline level by 2.81 (2.6) and 3.80 (3.1), respectively in the moderate and worst case in the short-term (long-term).

Clearly, as mentioned above, the manufacturing sector, which employs some half a million workers in Ethiopia, obviously is poised to be hit hard during this outbreak, primarily for two reasons: First, as mentioned above many manufacturing jobs are on-site and cannot be carried out remotely. Second, slowed economic activity has reduced demand for industrial products globally. As per (UN, 2020), a 10-15% loss of employment/livelihoods leads to a cumulative loss of perhaps 1.6 - 2.4 million jobs/livelihoods depending on the severity and duration of the crisis, mostly in urban areas. In the worst-case, 3.2 - 4 million could lose their jobs/livelihoods.

As the sample survey result confirmed, nearly 33 percent out of a total of 87 respondent manufacturing firms decreased their number of employees due to the pandemic. Yet, it has been showing no change in terms of labor cost. The majority (40%) of the respondents confirmed that due to the Covid-19 pandemic, there has not been any change in labor cost.

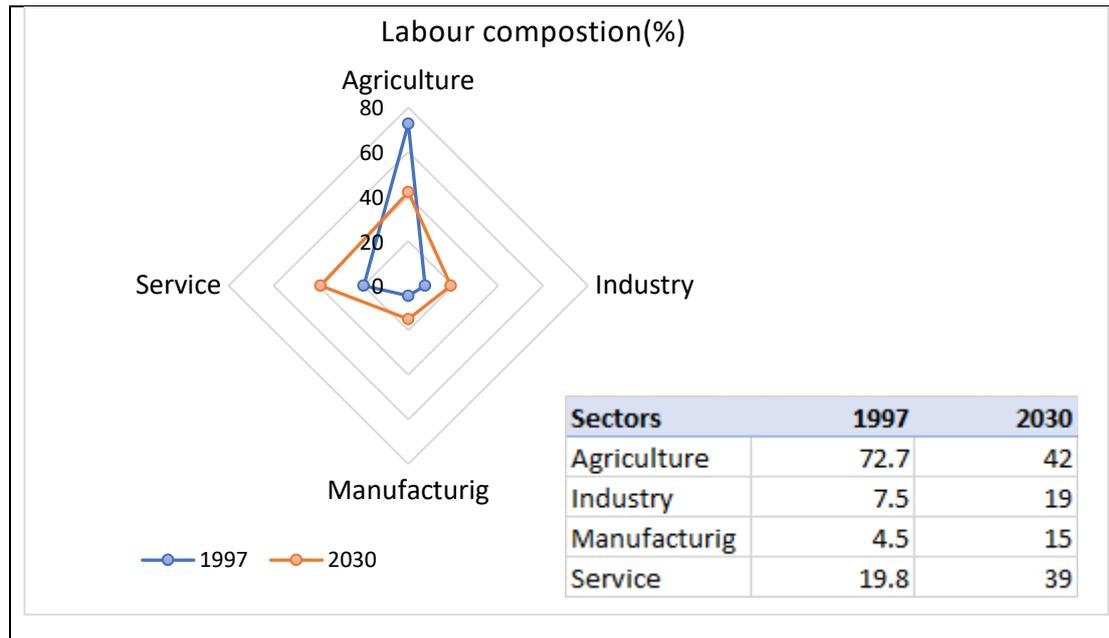
The respondents were asked if they had to lay off staff due to Covid-19, and the response was grouped into 'Increase greatly' (30–50%), 'Increase slightly' (10–30%), 'Reduce greatly' (30–50%), 'Reduce slightly' (10–30%) and 'remain the same'. Hence, approximately 38 percent of the total of surveyed manufacturing firms affirmed that they reduced up to 30 percent of their employees. In this regard, (Yeyati & Filippini, 2021) noted that the Covid-19 shock affected workers and labor income differently, depending on the composition of the workforce in terms of skills, occupation types, infrastructure (particularly, but not exclusively, those lacking connectivity), and type of contractual relations (particularly, informal and self-employed workers). As per the survey result, 42 percent of the respondents confirmed that a shortage of casual labor has been observed due to Covid-19.

In terms of the expected impact on the business workforce, more than half of the manufacturing firms expect the workforce to decline. In Africa, the employment-to-population ratio (EPR) tends to be higher than what it is for the rest of the world, although the difference has been shrinking over time. This is due to more people in Africa taking employment of any form than they do elsewhere. In the most recent year (2019), the EPR for Africa differed by only 1.4 percentage points from that for the rest of the world (ILO, 2020b).

According to CSA (2018), more than 329,000 persons are working in the large and medium scale manufacturing sector as of 2017. With a dependency ratio of 149 for every 100 employed workers, if firms reduced their workers by 50%, it will have a severe consequence both in the short and long term. In addition to these firms, it is likely that the furniture and textile industries, which hire about a quarter of the total employed workers in the large and medium scale manufacturing sector, will be affected by the Covid-19 pandemic crises since there will be reduced demand for their products if the crisis will continue for more than six months.

The industry of food and beverages manufacturing, which employs about 39% of the employees in the large and medium scale manufacturing sector, may also be affected due to reduction in production as a result of lack of imported raw materials, which constitutes 33% of its total input (CSA, 2018).

Figure 29: Labor composition in major economic sectors on Ethiopia

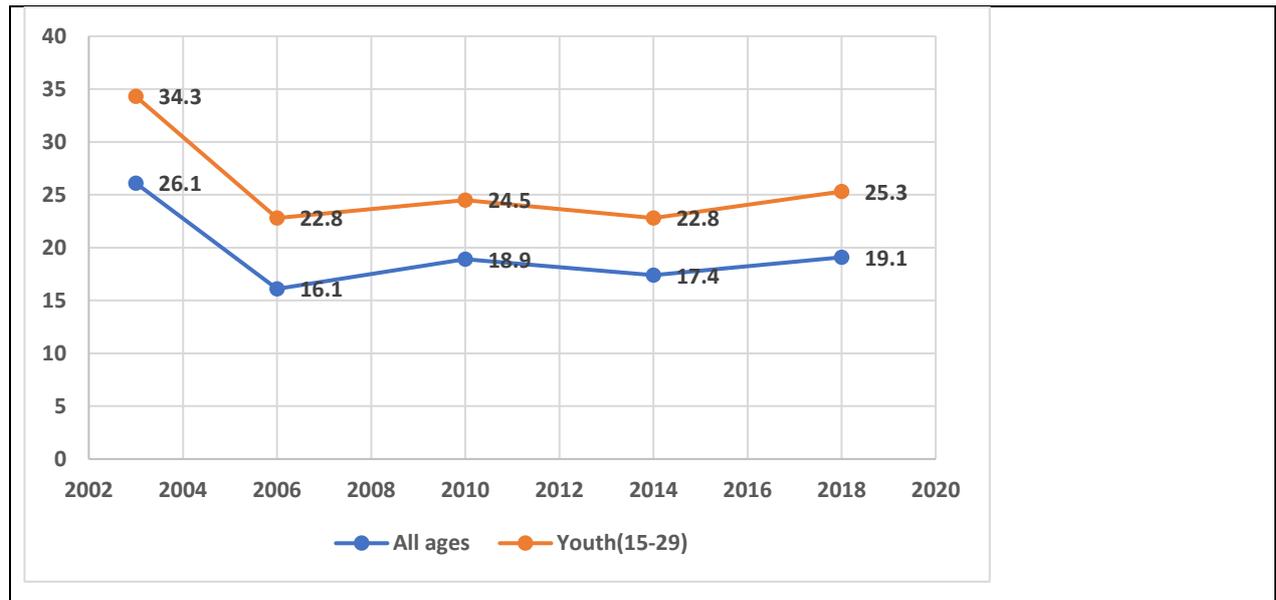


Source:(PDC, 2021)

As depicted above, the role of the manufacturing sector would be significant and showing increment. To sustain this magnificent performance of the sector there should be a policy response and address the issue. It is imperative to note that, economic growth does not automatically translate into new jobs. More specifically, the sectors that contribute the most to economic growth are not necessarily those which underlie substantial employment growth. Notably, most African countries depend heavily on natural resources and generate substantial revenues from extraction, but this leads to only low employment (ILO, 2020b).

Essentially, other than the Covid -19 pandemic impact, there should be a continuous engagement in transforming the economy into a more productive sector so that possible to curb some of the associated problems of employment. Structural transformation is an integral part of the process of economic development (ILO, 2020b). A core element of this is the gradual transfer of labor from low-paying, unproductive occupations into productive decent-wage jobs. Above and overall, with globalization, urbanization, and environmental change, infectious disease outbreaks and epidemics have become global threats requiring a collective response (Pak et al., 2020).

Figure 30: Urban Unemployment Rate



Source: Computed based on (CSA, 2015; PDC, 2021)

As illustrated above the number of unemployed youth is huge comparing the level of economic development. Following the unprecedented crisis (Covid pandemic) it is unvarnished truth that the number is expected to be higher.

#### 4.4.2.3. Impact On Input

Obviously, Covid-19 pandemic has been occurring over a large geographic area and impacts a high proportion of individuals, the global manufacturing supply chain has also been impacted. As per (Madurai Elavarasan & Pugazhendhi, 2020), the supply chain includes the production and distribution of a product.

(Kumar et al., 2020) noted that the spread of Covid-19 has already been disrupted supply chains globally in several ways, including, weakening demand for several types of products (automobile products, public transport, and textile products), skyrocketing demand for selected companies or their product (thermal scanners, ventilators, face masks, sanitizers, PPE, and essential food items), failure of supplies and uncertainty in raw material supply, impacting the ability to ship and receive products on time due to shortages and logistics bottlenecks and ensuring workforce capacity to assemble and ship products.

Undoubtedly, private investment likely remained subdued during the Covid and post Covid eras, due to the decline in demand, interruption in supply chains, and elevated uncertainty about future business prospects. (Kumar et al., 2020) noted that the service supply chain is highly impacted due to the spread of Covid-19. Most of the service industries, such as logistics, hospitality, restaurants, and tourism, observed are ducted in demand.

The other main impact of the pandemic is its impact on inputs. Most manufacturers in Ethiopia import inputs from abroad. As per (Belay et al., 2018), firms opt for foreign sources

due to several reasons including shortage and unavailability of inputs from domestic sources. In this regard, respondents were asked how access to input disruptions impacted their operations due to the Covid-19 pandemic. A significant (64 percent) number of respondents attested that material/input cost has been increased due to the pandemic. More specifically, equipment supply and costs are determinants of the manufacturer's profitability. In this regard, nearly (61 percent) of the respondents have been comforting equipment cost increment after the pandemic prevalence. As also asserted from participants of Adama FGD, especially prices of different imported raw materials surged more than expected bringing manufacturers in crossroads. Malpractices such as hoarding goods and production items (by the business community) have been among the challenges posed on the manufacturers since the start of the pandemic in the country.

To reveal manufacturers global and local suppliers after the pandemic, we posed two questions. The first one was “Do you face a shortage with national suppliers since the global outbreak of Covid-19?”. We found that an overwhelming 91% of firms confirmed they have been confronting serious shortages from the national suppliers. The second question posed was “Do you face a shortage with international suppliers since the global outbreak of Covid-19?”. Similarly, significant (83%) reported that they have so far been confronting a shortage of international supplies, given the majority of manufacturing import inputs from abroad. The manufacturing sector has seriously been affected by the Covid-19 crisis in relation to the input supply (Belay et al., 2018). A manufacturing sector participant from Bahir Dar FGD stated that his firm even was not able to bring expats to assemble machineries.

“We were not able to bring experts from China for assembling our already acquired factory machines due to travel restrictions at Global level, now from the Chinese side. It also impacted import of raw materials and different spare parts necessary for our operation. We were not able to receive our orders on time, making us incur significant loses”.

Collaboration with national authorities is required to curb the input supply problem triggered by the pandemic's effect. Yet, 40 percent of the respondents confirmed that there has not been collaborations with the national authorities so far. More surprisingly, 56 percent of the respondents attested that they have never been received any help so far from the government that helps lessen the economic impact of Covid-19. To address input supply problems collaboration with the government ought to be considered as one of the policy responses. (Kumar et al., 2020) a smooth production plan is required for the pandemic period. This involves that manufacturing firms should be more resilient and flexible to produce the essential items to meet customer demand. (World Bank, 2021) 20 percent of firms in Kenya have received public support during the Covid-19 pandemic. Smaller firms less often receive assistance and 80 percent of firms report not having received assistance because they were not aware of any government measures. Awareness of existing government programs is as important as the support.

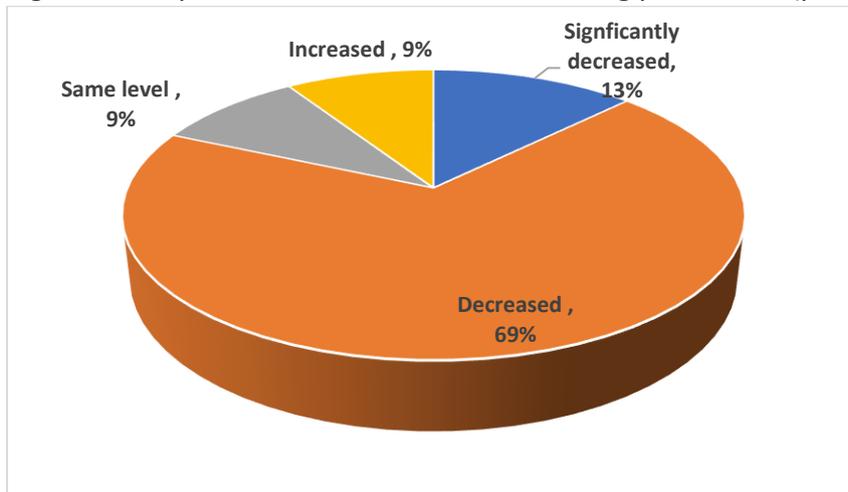
During the Covid-19 crisis, the governments of many countries implemented anti-crisis programs. In Poland, for instance, the program was called an “anti-crisis shield” and was based on five pillars: defending against job losses, support for the health service, security of the financial system, support for entrepreneurs, and public investment (Gajdzik & Wolniak, 2021).

#### 4.4.2.4. Impact on Production/Productivity

As has been indicated before, production was negatively affected as supply chain disruption hit and economic activities slowed down as people stayed at home. A slowdown in activities also meant a slowdown in productivity (Tekleselassie, 2021).

As per the survey finding only a few (16 percent) has stopped operation due to the pandemic. Yet, as can be seen from the following figure below, majority (69%) of the respondents’ production level has been decreased due to the Covid-19 pandemic.

Figure 31: Impact of Covid-19 on manufacturing production (percent)



Source: Sample Survey, 2021.

In fact, Covid-19 induced production drops and capacity shrinkages were also identified by the FGD participants from Adama. They further input supply shortage, employment and income loss and other miseries happened on the manufacturing sector because of factory closures, etc.

The respondents were also asked to identify the main reason for production loss and the majority (80%) affirmed that restriction placed by local law enforcement has significantly been affecting their operations. A major effect of the pandemic on manufacturing has been disruption to production and supply chains. In the supply chain, goods and services have been produced in lower quantities, and in some cases, production stopped. Some of the problems of supply chain disruption interalia, delivery delays, increased costs, uncertainty etc. The level of productivity in manufacturing remains low mainly due to low skill levels, therefore, a demand-driven approach to skills development is an essential step towards developing a

vibrant manufacturing sector that increasingly relies on domestic firms and Ethiopian workers (FDRE, 2020).

As per (Brinca et al., 2020) in particular, there were significant demand shocks in sectors that should not be very directly affected by the lockdown, such as manufacturing. This suggests that a targeted stabilization policy could help assuage the effects of the current crisis.

Most companies already have business continuity plans, but those may not fully address the fast-moving and unpredictable variables of an outbreak such as Covid-19. Typical contingency plans ensure operational effectiveness following events like the Covid-19 pandemics. Therefore, the industry may see some manufacturers struggle to recover and even declare bankruptcy depending on how robust and effective any government intervention and support may be, and how long the Covid-19 crisis lasts.

#### **4.4.2.5. Government Intervention/Policy/ Support Package**

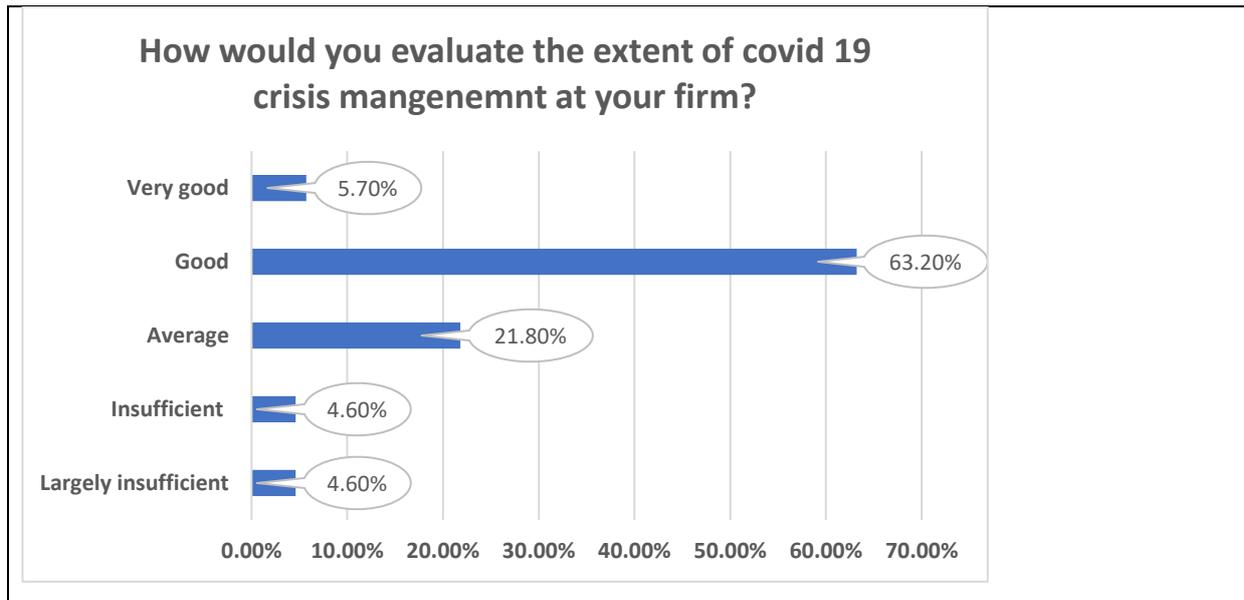
On 8 April 2020, a five-month state of emergency was declared in Ethiopia and a National Covid-19 Ministerial Coordination Committee was established to manage containment measures. Although no hard lockdown was imposed, social distancing, school shutdowns, banning of large gatherings, border closures, and suspension of international flights were implemented as control measures. The Government largely encouraged production and other economic activities and prohibited layoffs by private employers during the pandemic.

During the 2008-2009 financial crisis, it took manufacturing industries three years to return to the pre-crisis level. This time the course of the crisis will be at least as severe as it was during the financial crisis, if not even worse (Oliverwyman, 2020). The same study affirms that the simultaneous supply and demand shock with shutdowns has led to extremely deep slumps and an “up and down” recovery is more likely than a steady curve.

The sample survey identified the expected impacts of the Covid-19 restrictions on the revenue, inputs, finance, and employment. The survey results revealed that less than 25 percent of a total of 87 manufacturing firms were satisfied with the government response so far. In fact, as asserted by an FGD participant from Bahir Dar, manufacturing is a least supported sector. As per him, his request for access to loan and raw material facilitation was declined by the concerned authorities.

As has been discussed in the literature section, crisis management determines how fast firms recover from the unprecedented event like the Covid-19 pandemic. To this end, respondents were asked the level and extent of crisis management available in their institutions and consequently the majority (63%) evaluated the extent of Covid-19 crisis management as ‘good’.

Figure 32: Evaluation on the extent of the Covid-19 pandemic crisis management

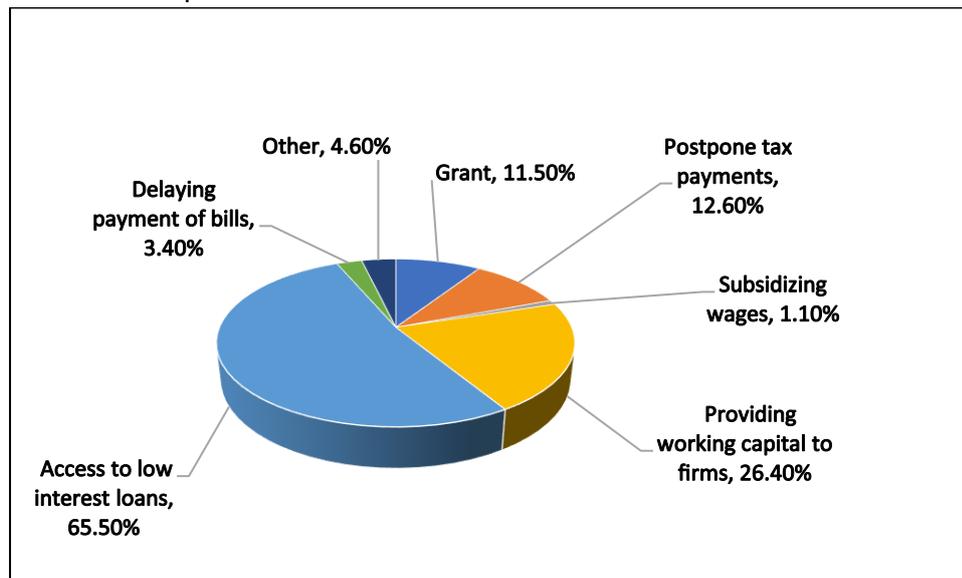


Source: Sample survey, 2021.

About 95 percent of the manufacturing firms have anticipated permanent and close measures to address the economic impact of the Covid-19 pandemic. Firms most often refer to loans with subsidized interest rates as one of the three most needed policy responses. Yet, just over 5% of the respondents anticipate loan and other credit options to address the economic impact of the pandemic, and nearly 3 percent of all firms considering closing their firms temporarily as the measure to combat the economic impact of the Covid-19 pandemic. On top of this, around 92 percent of respondent firms had received government support from the economic stimulus packages, in particular, tax reduction.

We also asked what policies are most needed to support businesses over the Covid-19 crisis. The ensuing figure shows that 65% of firms believe access to low-interest loans are the most appropriate policy response, followed by providing working capital to firms (26%) . About 13% of the firms consider a postponed tax payment to be the best policy response while only 11% of businesses see grant as the most appropriate. This has also been asserted by participants of focus group discussions conducted across different cities. The FGD participants from Bahir Dar suggested import substitution to be promoted especially in producing raw materials in addition to access to foreign currency, finance and other tax related incentives such as tax reductions, forgiveness, delays and the like.

Figure 33: Expectation of the firm from the government to overcome challenges imposed by the Covid-19 pandemic



Source: Sample survey, 2021

During the lockdown, various measures were being implemented by companies to deal with cash flow shortages, including the reduction in operating costs, taking loans from private individuals. We asked firms whether they have applied for or are currently receiving any government programs to support their business. Hence, 92% of firms have been receiving tax reduction support and 4% responded that they are benefitting from grant support.

Conclusively, the Covid-19 pandemic is expected to considerably affect the Ethiopian economy, directly and indirectly, due to global shocks and to the different restrictive preventative measures the country is taking. As indicated in the review literature section, a US\$1.6 billion multi-sectoral preparedness and response plan was prepared and allocated to the health sector, food distribution, and provision of emergency shelter and non-food items. Furthermore, the IMF approved US\$411 million in emergency assistance to Ethiopia, as well as debt service relief. The central bank also injected ETB 15 billion (US\$431 million) of liquidity to private banks to facilitate debt restructuring and prevent bankruptcies. The Commercial Bank of Ethiopia was provided with additional liquidity of ETB 33 billion (US\$948 million) (IMF, 2021). The government also accelerated the processing of value added tax (VAT) refunds to increase cash flow within the private sector. Other measures include amnesty of all tax debt prior to 2014/15, tax amnesty on interest and penalties for tax debt between 2015/16 – 2019/19, and exemption from personal income tax withholding for four months for firms who pay salaries despite not operating during Covid-19 (Beyene et al., 2020; A. Geda, 2020; IMF, 2021; PDC, 2020).

In general, the government of Ethiopia reinforced Covid-19 response efforts coordination mechanisms through an Emergency Operation Center and found out well-organized national response. It established four different levels of coordination: National Disaster Risk

Management Council chaired by the deputy prime minister, Public Health Emergency Management (PHEM) incorporated a multi-sectorial national task force chaired by the Minister of Health, The PHEM technical task force that has been managed by the Director General of Ethiopian Public Health Institute (EPHI); and PHEM Technical unit guided by the national incident manager (Angaw, 2021; Beyene et al., 2020; Goshu, Ferede, et al., 2020).

#### **4.5. Agriculture and Covid-19**

##### **4.5.1. Ethiopia's Agriculture Sector at a glance**

About half of the African and three fourth of the Ethiopian households generate their livelihood from agriculture from close to 80% of Ethiopia's population who reside in rural areas<sup>13</sup> (EPDC, 2020). Though agrarian natured, agriculture is the dominant sector in the economy accounting for 39% of Gross Domestic Product (GDP), 73% of employment, and over 77% of the country's export values (EPDC, 2020; Mitik Beyene et al., 2020b). Crop constitutes 68% of the entire GDP share of the agriculture sector. The sector has been growing by 5.3% annual growth rate per annum during the past decade (ibid).

The recent CSA (CSA, 2021d) report shows the country has cultivated about 14.9 million hectares of land covered with cereals (70.5%), Pulses (11%), Oilseeds (5%), Vegetable and fruits (4.8%), and other crops (8.4%). The largest production was obtained from cereals with 302 million quintals constituting 68% of the entire yield in the year. Production of root crops and pulses account for 13% and 7%, respectively. Grains, fruits and vegetables productivity has been increasing by 20%, 9% and 629%, respectively in the last 10 years. In addition, Ethiopia has the largest livestock population in the African continent with about 70.2 million cattle, 43 million sheep, 52.4 million goat 57 million poultry and many more in 2021 (CSA, 2021e).

Endowed with abundant natural resources, Ethiopia has one of the most diverse agro-ecological configurations in the world. With 74.3 million hectares of arable land spread over 18 major agro-ecological zones at altitudes ranging from 148 meters to 4,620 meters above sea level, the country's diversity makes it suitable for growing over 100 types of crops (ATA, 2018).

Despite massive efforts to modernize agriculture, the sector still suffers from attaining its full potential. It is still predominantly subsistence which also suffers from shortage of rain and draught problems, low soil fertility, the prevalence of different crop and animal diseases, inadequate inputs utilization, poor animal husbandry management, shortage of skilled manpower and limited institutional capacity and many more. The agriculture sector faces insufficient yield growth due to inefficient provision of inputs and services, difficulty with

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<sup>13</sup> Davis, Benjamin, Stefania Di Giuseppe, and Alberto Zezza. 2017. "Are African Households (Not) Leaving Agriculture? Patterns of Households' Income Sources in Rural Sub Saharan Africa." *Food Policy* 67: 153–174  
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respect to land lease rights, limited investment on research and development (R&D) and irrigation, marketing and logistic related problems, and lack of agriculture-specific financial services (NPC, 2020).

Yet, this doesn't mean agriculture is utterly doomed. The sector has been affirmatively influencing Ethiopia's Human Development Index (HDI), as increased income has led to the decrease of undernourishment prevalence from 37.2% in 2007 to 13% in 2020 and rise of literacy rate from 39.9% in 2007 to 51.7% in 2017 (ATA, 2018; EPDC, 2020).

#### 4.5.1.1. Crop Production

Ethiopia has cultivated an average of 14.5 million hectares of land in the last five years most of which are covered by cereal crops (71.5%), pulses (11%), oilseeds (5.5%), and coffee (5.3%). Averaged at 405.3 million quintals in the last five years, the largest share in terms of production goes to cereals (69%), root crops (12%) and pulses (7.4%). Area covered by crops and production obtained has been increasing by 1.4% and 4.4% per annum respectively in the last five years. Production of major crops i.e. cereals, pulses and root crops show an annual growth rate of 4.5%, 3.3% and 5.4%, respectively between 2016/17 and 2020/21. Fruits, chat and coffee also grew by 19%, 9.5% and 6.2% per annum respectively in the period considered. Increased agricultural inputs dissemination, enhanced extension packages delivery and amplified productivity-enhancing technology distribution are among the named factors behind the observed productivity (EPDC, 2020).

Table 26: Area cultivated and crops produced in Ethiopia (2016/17 to 2020/21)

Major Crops	2016/17	2017/18	2018/19	2019/20	2020/21	Average	
	Total area					Area (Hectare)	Percentage Share
Cereals	10,219,443	10,232,582	10,358,890	10,474,336	10,538,342	10,364,719	71.5%
Pulses	1,549,912	1,598,807	1,620,497	1,563,519	1,674,950	1,601,537	11.1%
Oilseeds	804,752	846,494	747,804	820,782	766,168	797,200	5.5%
Vegetables	239,610	208,986	241,191	238,506	243,569	234,372	1.6%
Root Crops	229,079	233,290	231,552	248,224	307,296	249,888	1.7%
Fruit Crops	107,891	104,422	119,909	115,534	161,471	121,845	0.8%
Chat	255,402	262,072	323,644	279,587	339,537	292,048	2.0%
Coffee	700,475	725,961	764,863	756,853	856,592	760,949	5.3%
Hops	31,367	31,196	38,112	34,489	33,370	33,707	0.2%
Sugar Cane	31,237	29,536	27,827	32,057	29,520	30,035	0.2%
Total area (hectare)	<b>14,169,167</b>	<b>14,273,346</b>	<b>14,474,290</b>	<b>14,563,886</b>	<b>14,950,814</b>	<b>14,486,300</b>	100.0%
	Total Production					Production (quintal)	Percentage Share
Cereals	253,847,240	267,789,764	277,638,381	296,630,122	302,054,261	279,591,954	69.0%

Major Crops	2016/17	2017/18	2018/19	2019/20	2020/21	Average	
	Total area					Area (Hectare)	Percentage Share
Pulses	28,146,332	29,785,881	30,113,481	30,051,569	31,999,989	30,019,450	7.4%
Oilseeds	8,392,022	8,550,738	7,850,197	8,421,345	7,774,444	8,197,749	2.0%
Vegetables	8,126,249	7,391,545	8,893,169	8,761,390	9,067,871	8,448,045	2.1%
Root Crops	46,305,690	45,609,822	45,357,549	46,380,933	56,216,815	47,974,162	11.8%
Fruit Crops	7,923,665	7,774,307	8,343,562	8,347,071	14,192,409	9,316,203	2.3%
Chat	2,201,860	2,354,538	2,747,771	2,619,829	3,113,999	2,607,600	0.6%
Coffee	4,690,911	4,492,298	4,945,744	4,825,606	5,847,896	4,960,491	1.2%
Hops	400,736	396,479	490,521	419,346	473,227	436,062	0.1%
Sugar Cane	14,103,115	13,470,350	12,940,811	14,991,344	13,454,311	13,791,986	3.4%
Total production (quintal)	<b>374,137,820</b>	<b>387,615,722</b>	<b>399,321,186</b>	<b>421,448,556</b>	<b>444,195,221</b>	<b>405,343,701</b>	100.0%

Source: (CSA, 2016, 2018b, 2019b, 2020a, 2021d)

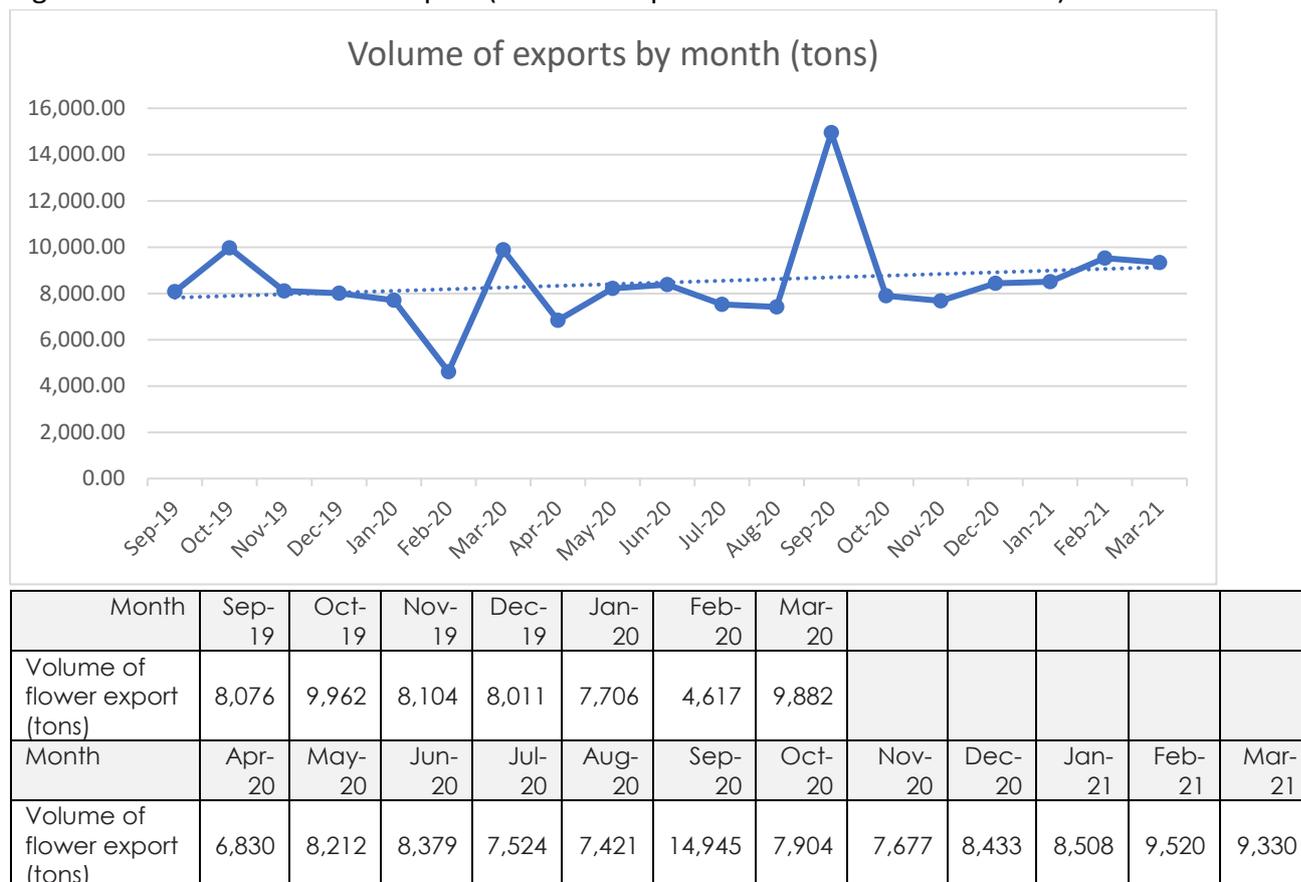
Irrigation development shows poor performance compared to what has been planned mainly due to inflation hit high investment requirements (EPDC, 2020).

Floriculture was one of the plant production sub-sectors feared to be severely hit by the pandemic in Ethiopia. Flowers are usually cultivated for export market and we analyzed how these sub-segment performed since the pandemic emerged in the country in 2020. Statistical figures show that both value and volume of exports have been growing since April 2020 and the flower export, in general, hasn't dropped since September 2019 in general as also illustrated in the ensuing chart. According to floradaily.com<sup>14</sup>, the Ethiopian floriculture industry (export) had been significantly affected between March and April 2020, during the early footings of Covid-19 in the country. The sector generally performed well unlike what has happening at the globe – a near catastrophe fall in demand and sales of flowers across the board. It is true that flowers are purchased for a variety of reasons ranging from expressions of love or sympathy to satisfying environmental and beautification goals. With covid-19 pandemic, this turned upside down and the demand for flowers sharply vanished as these are not essential or necessity items. Ethiopia largely exports its cut-flower to European market and in 2020 Europe had been in chaos due to the pandemic. Ethiopia's exporters did well mainly because clock (auction) prices overall not much affected and the Ethiopian airlines cargo flight has been significantly supporting the sector (ibid).

In general, statistical figures apparently show the pandemic has had no/very minimal effect on the sub-sector.

<sup>14</sup> <https://www.floradaily.com/article/9319845/the-ethiopian-flower-industry-has-shown-remarkable-growth-over-the-past-years/>

Figure 34: Volume of flowers export (between September 2019 and March 2021)



Source: based on (NBE, 2021)

#### 4.5.1.2. Animal production and productivity

Ethiopia is a country rich in livestock resources. With over 70 million cattle population, the country ranks 1<sup>st</sup> in Africa and 6<sup>th</sup> in the globe (CSA, 2021e). Over 43 million sheep population (3<sup>rd</sup> in Africa and 10<sup>th</sup> in the world) and more than 52 million Goat populations which makes 3<sup>rd</sup> in Africa and 8<sup>th</sup> in the world (FAOSTAT, 2017<sup>15</sup>, (CSA, 2021e)).

Table 27: Livestock population in Ethiopia (million)

Year	ALL LIVESTOCK							
	CATTLE	SHEEP	GOATS	HORSES	DONKEYS	CAMELS	POULTRY	BEEHIVES
2018/19	61.51	33.02	38.96	1.93	9.66	1.76	59.42	7.08
2019/20	65.35	39.89	50.50	2.11	9.99	7.70	48.96	6.96
2020/21	70.29	42.91	52.46	2.15	10.79	8.15	56.99	6.99

(CSA, 2021e)

<sup>15</sup> USAID, 2013. Value chain analysis on Ethiopia leather industry. Agricultural Growth Project - Livestock Market Development Project. 2013. [www.fao.org/faostat/en/#data](http://www.fao.org/faostat/en/#data) (accessed on March 2017).

Ethiopia's cattle population has been growing by 7% per annum on average since 2018, with sheep and goats numbers also rising by 14% and 17%, respectively in the period. Poultry and beehives population show a slight decline (by about 0.6%) in the time.

Milk production in the country averaged 3.6 billion liters in the last five years exhibiting an average 19.5% growth per annum. About 4.7 billion liters of milk, 369 million eggs and 129.3 million kgs of honey were produced in 2021. Honey and egg production registered an astounding 71% and 63% annual growth rates in the last five years. Only honey production declined since the outbreak of the pandemic.

Table 28: Milk, honey and egg production in Ethiopian

Type of product	Unit of meas.	2016/17	2017/18	2018/19	2019/20	2020/21	Average
Cow Milk	Million liter	3,134	3,318	3,284	3,895	4,693	3,665
Honey Production	Ton	47,706	66,222	58,588	150,258	129,301	90,415
Egg Production	'000 Number	127,566	136,764	151,473	316,821	368,794	220,284
Percentage Growth							
Cow Milk			5.9%	-1.0%	18.6%	20.5%	19.5%
Honey Production			38.8%	-11.5%	156.5%	-13.9%	71%
Egg Production			7.2%	10.8%	109.2%	16.4%	63%

Source: CSA. Livestock and Livestock Characteristics. Agricultural sample surveys for the years 2016/17, 2017/18, 2018/19, 2019/20 and 2020/21. Addis Ababa.

Household consumption pattern of livestock products has been mixed in the country in the last five years. For instance, milk consumption at home increased from 21.3% in 2016/17 to 50% in 2020/21, with also beef meat consumption rising from 50% to 52% during the same period. In the contrary, household eggs, butter, cheese, honey and mutton/goat meat utilizations declined during the same period (CSA, 2017, 2021c). The rise in the consumptions mainly attributed to the difficulty in transporting the outputs to the market whereas the decline is due to the boost in the produces sales share.

#### 4.5.1.3. Ethiopian agriculture sector performance and challenges

Various agricultural development activities were executed in the country in the past decade with an aim of expounding the sector's production and productivity. According to (EPDC, 2020), the country creates agricultural employment opportunities to about 6.7 million people in the last five years; natural conservation works increased from 4.05 million hectares in 2010/11 to 21 million hectares in 2019/20; river basin development expanded dramatically from 6.9 million hectares in 2010/11 to 33.5 million hectares in 2019/20; and considerable

tasks carried out in creating climate-resilient green economy that helped reduction of greenhouse gas emission.

Despite the sustained efforts to boost the agriculture sector performance in Ethiopia, the achievements so far made are reportedly inadequate in terms of such as liberating millions of rural small scale farmers from abject poverty, strengthening backward and forward linkages and enhancing productivity. Farming in Ethiopia is largely rain-fed, agrarian and far from bringing food self-sufficiency through structural transformation. The country's agriculture left behind some 25 million people without adequate food and forced about 18 million citizens to survive through food safety net programs (EPDC, 2020). Relentless effort is required to bring structural transformation in the sector to tackle food shortage issues and ultimately make the agriculture sector a catalyst for economic growth and development.

#### **4.5.2. The impact of the Covid-19 pandemic on the Agriculture sector**

##### **4.5.2.1. What was anticipated?**

According to (FAO, 2020b), the Covid-19 pandemic impacts food security by affecting the demand and supply sides of food chain. Citing the UN and WB assessments, (FAO, 2020b) estimations indicate that up to 130 million people across the globe may have hungered in 2020 as the result of the economic recession triggered by the pandemic. The supply chain has been expected to sustain for a longer period owing to governments movement restrictions, lockdowns and closures. As per (Raul, 2020), the food demand disruption outweighs the supply side mainly due to the passability restrictions that affect accessibility. All across the agricultural system including producers, raw materials, agricultural machinery and inputs, processing plants, and farm and industrialized food as well as the consumer sides encompassing people and different marketing systems have been subject to the pandemic's effect (ibid).

Various studies differently predicted the effect of the pandemic on the agriculture sector of Ethiopia. Some forecasted the sector would be hit hard (Mitik Beyene et al., 2020b; UN, 2020) while others anticipate mild effects (Ababulgu Abasimel & Wana Fufa, 2021; Akuffo & Sydney, 2021; Alemayehu Geda, 2020). Yet, most works display the probable impact and not the actual effect as they were written at the early stages of the pandemic in the country. Our current assessment generally backs the argument anticipating the mild effect of the pandemic on the agriculture sector and food security.

Despite the extent, the pandemic unquestionably impacts variegated functions and systems of the sector. (Mitiku et al., 2020) predicted how Covid-19 disrupt agricultural demand and supply sides in the country, notably from the production, handling and storage, processing and packaging, distribution and marketing and consumption perspectives.

They speculated that agricultural inputs delivery and distribution, which is almost entirely import dependent, would be delayed due to transportation delays ensuing lockdowns and border closures at the input producing/sourcing countries such as China, Russia and Saudi Arabia. Influenced by delays, prices of inputs like improved seeds, fertilizers and pesticides would surge that in turn disincentivizing farmers to produce at normal pace leading to short term food shortages and in the long run decline in production and productivity (Akuffo & Sydney, 2021; Alemu; Guijt, 2020; Mitiku et al., 2020). Delays in fuel /energy and other necessary inputs movements and delivery as a result of lengthy transportation time, higher loading and unloading markup, higher distribution cost and longer retail filling were also mentioned as associated causes for the likely effects on the agriculture (ibid).

The likely agricultural labor shortage due to movement and gatherings restrictions, and fear of getting infected by the virus was another expectation that would potentially affect food security (Ababulgu Abasimel & Wana Fufa, 2021; JCCE, 2020a; Mitiku et al., 2020). As also mentioned in the conceptual framework part of this study the pandemic brought sociocultural and psychological tensions with a negative effect on economic activities and productivities. One FGD participant from Adama expounded the situation as:

“The pandemic’s visible effect on economic performance highly connects with the fear or psychological factor, meaning fear of being contracted and the pursuing misery. This made people and different actors including the government to take extra cautions and measures which directly affects the economy.”

There were signs where vegetable production which is labor intensive by its nature had been affected in the central rift valley region of the country during the early stages of the pandemic due to labor shortages. The floriculture industry, another labor intensive activity, was forecasted to shade off around 150,000 employees since march 2020 due to the effects of the pandemic (Mitiku et al., 2020). Activities of different players in the agriculture sector such as agricultural cooperatives, unions, NGOs, grass root community groups, financial institutions, agriculture research centers, etc were feared to be severely affected due to movement and gathering restrictions and the likely budget cuts (Mitiku et al., 2020). The livestock sector, and notably the pastoralists that makeup upto 12% of the country’s population, vegetable and fruits production (and other high value crops), and the food utilization pattern were further anticipated to suffer from the pandemic’s effect (JCCE, 2020a; Mitiku et al., 2020; UN, 2020).

(Akuffo & Sydney, 2021; Alemu; Guijt, 2020; Mitik Beyene et al., 2020b; Mitiku et al., 2020) collectively identified the probable impacts of the pandemic on handling and storage of agricultural products, processing and packaging of agricultural products, meat exporting abattoirs, industries producing shelf stable products, distribution and marketing of agricultural products as well as consumption of agricultural products. Food insecurity, price hikes, deterioration of purchasing power, income losses on those using agricultural produces,

loss of foreign earnings, and others were mentioned as potential impacts of the pandemic on the sectors. In a similar tone, (UN, 2020) narrated that Covid-19 may impact the country's agriculture in several ways including the likely disruptions to income-earning opportunities; disruptions in the functioning of agro-industrial parks (AIP); obstructions on production, productivity and market access due to input shortages; up to 30% drop in production if attention geared towards cultivating cash crops; fall in access to production capital; deep effect on pastoralism and livestock sector; drop in vegetable and fruits production; the likely adverse impact on food access; and decline in food utilization.

According to (Mitik Beyene et al., 2020b), those linked with the export market such as coffee, oilseeds and high value vegetables would be significantly impacted by the pandemic. Using a dynamic Computable General Equilibrium (CGE) model, the authors (Mitik Beyene et al., 2020b) modelled the likely economic impact of Covid-19 in the short, medium and long term. The simulation output shows that agricultural production would fall by 7.4 percent in 2019/20 and 7.6 percent in 2020/21 under the mild scenario, and by 13% in 2020/21 in severe case. Cash and export crops predicted to decline under mild scenarios between 10% & 15% in both years (2019/20 and 2020/21), with food crops to dwindle between 5% & 10% in the considered years (same scenario assumed). More slashes were expected under severe case scenario. These all predicted to impact both food security and foreign earnings. Significant reduction of rural farm households welfare was expected following the negative impact on the agriculture sector which is the mainstay for the rural residents. (JCCE, 2020a) predicted the likely income shock (estimation of a potential \$838 mill income loss in production in Agriculture equivalent to \$9 per month for 15 million households over 6 months period since April 2020), input distribution disruptions and a fall in export revenues of cash crops (coffee, sesame, etc), reduction in poultry and egg productions. The commission further anticipated a 7% decline in cereal production due to disruptions and delays.

As highlighted before, some authors forecasted the pandemic's effect would be less severe in the agriculture compared to other economic segments like the aviation, manufacturing and tourism. (Alemayehu Geda, 2020), for instance, predicted that the agricultural sector would be least affected (unlike industry and service sectors), a decline by only about 1% under best case and 1.6% under sever case scenario. He further forecasted a 190.1 million birr lost income per month and about 28 million additional people to slide into poverty in the agriculture sector due to the pandemic. He (Geda) suggested amicable interventions on the sector for food security reasons to better deal with GDP contractions expected by the effect of the pandemic. For (Ababulgu Abasimel & Wana Fufa, 2021), the agriculture sector is among segments of the economy less affected by the pandemic. They anticipated disruptions in movement of casual labor and delays in imports (particularly of food and medicines, input supplies for seasonal agricultural production [seeds, fertilizers) may occur with corresponding negative consequences in agricultural production, food security, and health. Based on the survey conducted in five African countries i.e. Ethiopia, Malawi, Uganda, Nigeria and Burkina

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Faso, (Akuffo & Sydney, 2021) deduced that the pandemic has not as such impacted agriculture compared to other sectors in most Sub-Saharan African (SSA) countries. As per them, the number of households engaging in agriculture sector has even increased in the post pandemic era in Sub-Saharan African countries. This trend has become particularly prevalent in urban areas than rural regions. Price shocks in agricultural inputs and reduction in output prices observed affecting households in SSA.

According to (Guijt, 2020) there have been short term effects on agriculture especially during the start of the pandemic in Ethiopia (March 2020) and the succeeding partial lockdown sustained for five months since April 2020. This is reportedly due to the fact that the majority of farmers in Ethiopia are smallholders who produce small quantities largely for self-consumption. The effect has been to a great extent related to the movement of casual labors. Some agricultural activities such as the production of sesame and high-value vegetables were affected because of mobility restrictions which caused labor shortages and thus rise in labor costs. On the contrary, young returnees to the rural areas because of the pandemic-induced job losses became an alternative source of labor for some agricultural activities such as sesame. Layoffs were expected and actually occurred in the floriculture sector due to drops in demand for flowers elsewhere across the globe. Attributable to the value chain disruptions, a decline in vegetable and livestock products trade and consumption has been witnessed.

In sum, most studies conducted to probe the effect of the pandemic anchor on predictions, and largely produced at the onset of the pandemic in the country. Mixed projects were made – some predicting severe outcomes while others anticipated minimal effects of the lung disease on the agriculture sector.

#### **4.5.2.2. What happened?**

In contrast to the largely doom predictions, recent facts and figures show that the effect of the pandemic on the agriculture sector has been generally moderate.

A recent assessment (As of December, 2020) conducted by the Ministry of agriculture (Getachew, 2020) shows that the agriculture sector is least affected compared to other mainstreams. As per the report, most projections made by international organizations during the wake of the pandemic in the country (early March and April, 2020) were qualitative and pessimistic. For instance, the World Bank feared a grave food security crisis in Sub-Saharan Africa including Ethiopia. As per the UN-Ethiopia, the country's agriculture sector was predicted to face "drops in agricultural production, income losses, supply chain disruptions, and a broader negative impact on food availability, access, and utilization". Others, such as (EPDC, 2020) and (A. Geda, 2020) forecasted in contrast, saying the sector would face minimal effect from the pandemic with insignificant supply shock.

Following entry of the pandemic to the country in March 2020, the Government of Ethiopia declared a state of emergency (SOE) in April which sustained for five months. As per the

Ministry of Agriculture, different support packages were introduced during the SOE period most of which targeting the business community. Tax exemptions, debt relief, price control and other financial sector measures were part of the actions. There was however no direct and specific package support aiming the agriculture sector. Despite the continued health measures, the SOE was not extended beyond the targeted five months period although different health measures such as wearing masks, sanitary practices and others continued.

Despite the fact that no comprehensive impact assessment study was made on the agriculture sector by the Ministry of Agriculture, the Ethiopian Government has prepared and enforced Covid-19 action plan in five key areas for the agriculture sector. The ensuing table recaps the key response components along with policy measures and actions planned for the sector.

Table 29: Key components of the agriculture sector Covid-19 Response plan and the corresponding policy measures and actions

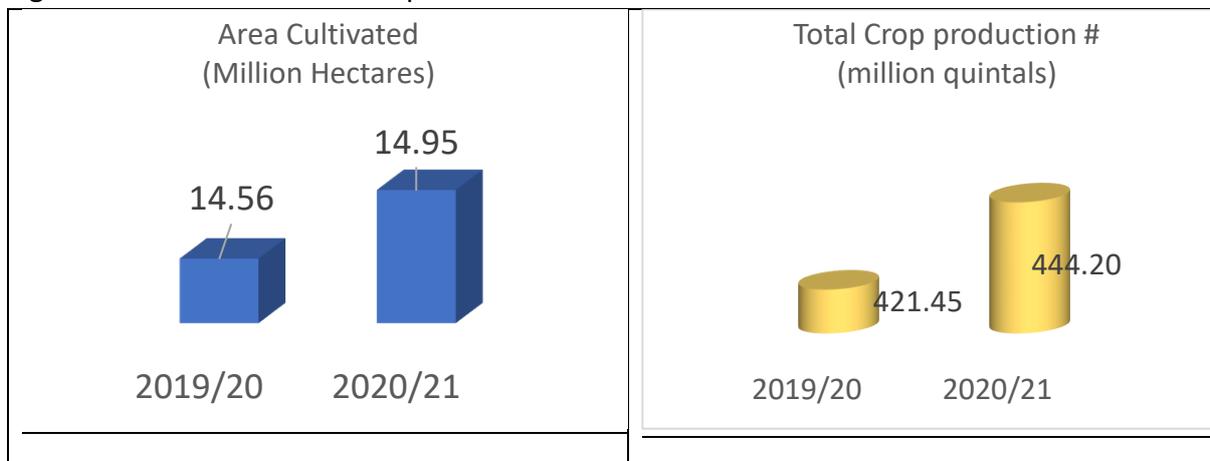
s.no.	Key Component of Response plan	Policy measures and activities
1	Agricultural services business continuity	<ul style="list-style-type: none"> <li>• Safe extension and communication operation manual</li> <li>• Protection of staff and development agents (sanitary items and masks supply)</li> <li>• Digital extension methods (megaphone, radio programs)</li> <li>• Virtual technical supports to Regions</li> </ul>
2	Safe and timely distribution of inputs	<ul style="list-style-type: none"> <li>• Early procurement and distribution of fertilizer</li> <li>• Fertilizer distribution centers (destination) received soap and hand sanitizer</li> </ul>
3	Increased production	<ul style="list-style-type: none"> <li>• Irrigated wheat</li> <li>• Offseason irrigated vegetables</li> <li>• Planting unutilized land (commercial farm)</li> <li>• Acidic soil reclamation</li> </ul>
5	Commodity supply chain (domestic & export)	<ul style="list-style-type: none"> <li>• Output financing for cooperatives</li> <li>• Cooperatives market linkages Stimulus package for flower exporters including suspending credit payments &amp; taxes</li> </ul>
5	Food support	<ul style="list-style-type: none"> <li>• Resource mobilization for meal sharing program</li> </ul> <p>Guideline to mitigate Covid-19</p>

Source: (Getachew, 2020)

Although not backed by an adequate statistical data, the impact of Covid-19 on the agriculture sector has been reportedly minimal. In fact, it looks that the pandemic has an opposite

general outcome on the agriculture sector. The size of farm land cultivated by small holders farmers shown a rise in the Covid -19 era. As per Getachew (2020), about 13.3 million hectares of land are covered with different crops, which is slightly above the planned 12.85 hectares. Commercial farm size however has witnessed a significant decline. The same source indicated that the plan was to cover 1.42 million hectare, yet only about 220 thousand hectares were cultivated. The CSA data also supports this fact. Both area cultivated and crop production shows a dramatic increase since the onset of the pandemic in the country. For instance, the area cultivated has grown from 14.5 million hectares in 2019/20 to 14.9 million hectares in 2020/21, apparently depicting a 2.7% increment since 2019/20. Total production obtained also witnessed a 5.4% growth since last year. Only oilseeds and sugarcane production declined with 7.7% and 10.2% in their sequence since 2019/20 . Area covered with oilseeds and sugar canes also dropped by 7% and 8%, respectively between 2019/20 and 2020/21 (CSA, 2021d). The exact reasons behind the rise in arable land and production remain elusive. One of the incidents that happened during the onset of the pandemic’s storm in the country was the urban to rural migration. This has likely increased labor force in rural areas that engaged in agricultural practices and hence a rise in arable land. The government has also been extensively working on the expansion of cluster farming which likely contributed to the rise in the coverage of previously uncultivated/under cultivated lands.

Figure 35: Area cultivated and production obtained



Source: (CSA, 2021d)

Although the size of land irrigated declined by about 14% (from 211 thousand hectares in 2019/20 to 181.4 thousand hectares in 2020/21), the amount of fertilizers distributed significantly rose by 18% and the area covered with pesticides increased by 21% during the considered period (CSA, 2021b). The same applies for the livestock sector. As tabulated under section 4.5.1.2 of this study, no decline in the livestock population has been observed since the start of the pandemic. These all facts and figures clearly demonstrate the minimal influence of the pandemic on the agriculture sector.

As per (Getachew, 2020), different agricultural activities have been executed with support from the ministry of agriculture. Although not supported by statistical figures, the report states that seed and fertilizers importation and distribution, import and export of agricultural products, and other agricultural activities have been performed without compromising safety guidelines compliance set by the Ministry of Health. Different measures were also taken to protect and control desert locusts.

#### **4.5.2.3. Financial impact**

As clearly communicated in the methodology section, a sample survey was conducted to better probe the impact of the pandemic on operations of selected sectors including agriculture. Accordingly, about 38 firms engaged in agricultural production were sampled from across the five considered cities (Addis Ababa, Adama, Bahir Dar, Dire Dawa and Hawassa), most of which were from Addis Ababa (76%). We observed that about two third (65%) are run by males; dominated by Plc (58%) and sole proprietorship (34%) type of legal status.

The Covid-19 pandemic has exerted several impacts on various socio-economic activities across the globe since its outbreak in Wuhan China in December 2019. Business operations stopped or significantly reduced, revenues lost, millions become jobless, countries GDPs fall, etc etc. Arduous financial impact on businesses is among the pandemic's ill effects thus far recorded. In this regard, about 63% of the sampled agriculturalists reported cashflow shortage due to the pandemic and around 74% are somehow concerned about the pandemic's jeopardizing effect on their future financial sustainability. The pandemic has had a significant impact on the financial sustainability of their operations, making most of them 'somehow concerned' (58%) and 'very concerned' (26%) about the future of their institution. Loan financing (72%) has been predominantly used as a coping mechanism for cashflow shortages followed by funding from existing shareholders (33%), delaying payment (28%) and adding new partners (25%).

The pandemic has caused heavy debt and tax burdens on several firms because many either stopped or substantially reduced their operations. This makes them not to adequately generate the financial resources required to pay off their debts and settle taxes. Governments across the globe including Ethiopia's have been taking different measures to ease such impacts on businesses. In this connection, more than half (53%) of the surveyed agriculturalists expect no change in their business debt burden due to the effects of the pandemic whereas 39% see a rise in their debt burden. About half (50%) also expect no change in tax levels while 37% anticipate up to 50% cut in tax levels to mitigate the financial burdens posed due to the pandemic. Around nine-tenth do not expect business subsidy from any organization.

Businesses employ different mechanisms to mitigate challenges triggered by the pandemic. Loan financing, cost reductions, new business strategies, and so forth are among the measures adopted by firms.

Pandemics have both short and long term effects on businesses. Production cuts, lost profit, employment layoffs, etc could be short period consequences while in the long run it may lead bankruptcies and total closures. Many businesses hope that Covid-19 would have short term effects and would revive well after a while. The lion's share (47%) of the survey respondents said they are 'confident' enough that their business would recover from the pandemic's effect although some 27% disclosed they are not sure whether their business would recover or not. Only 11% have a pessimistic outlook towards the recuperation of their agricultural activity in the post pandemic era.

#### **4.5.2.4. Impact on Employment**

One of the grievous outcomes of the Covid-19 pandemic is job losses. In this regard, almost all sectors including agriculture have been affected. (Mitik Beyene et al., 2020a) forecasted that employment in rural sectors would be slightly more affected by the pandemic (than urban employment) because it goes along with the contraction in agricultural activities and the reduced activity in other rural non-agricultural sectors. As per the authors, the loss of employment in the agricultural sectors would affect wage laborers and not family workers and they cited signs of urban to rural migration because of the slowdown in urban economic activity in the early stages of the pandemic. (ILO, 2021; UN, 2020) in the contrary foresaw less impact of the pandemic on agricultural employment in Ethiopia and elsewhere.

According to half of our survey respondents in the agriculture sector, the pandemic caused them to reduce their employees. About 62% replied that they slightly (10% to 30%) laid off and nearly 24% kept their employees with them. The majority (57%) said they had discharged less than 5 employees if they had to do so, with only 20% laid off between 5 and 10 employees. About 71 percent said communication among and between all staff has been effective to some extent during the pandemic. Although a slightly greater than half (53%) anticipate no change in their business workforce because of the pandemic, about a third (29%) foresee a decrease in their size of the labor force.

#### **4.5.2.5. Impact on input**

The agriculture sector makes use of different inputs such as fertilizers, improved seeds, animal feeds, agrochemicals, veterinary products, and others for production. The lion's share of agricultural inputs in Ethiopia are imported from abroad and there was a forecast predicting substantial disruption in the importation of the required inputs. Delays and reductions on bringing in the necessary inputs causes a drop in agricultural production causing food security problems. It will also have a domino effect on other sectors such as manufacturing and services that use of agricultural produces as inputs. A collective effect would be a fall in macro economy with other grievous consequences.

Distribution and utilization of agricultural inputs vary across different countries in the Covid-19 pandemic era. As per (Akuffo & Sydney, 2021), households in Sub Saharan Africa have been affected by price shocks in the form of high prices of farming inputs. About 56% in Nigeria and 29% of farming households in Malawi which were surveyed by the study reported experiencing input price shocks. (FAO, 2020a) also depicted the negative effect of the disease on input distributions in East Africa. (Getachew, 2020) by taking the case of rice production in Ethiopia, reported that the effect of the pandemic on the input distribution and notably fertilizers and seeds has been mild while agrochemicals distribution and agricultural extension services were negatively impacted. The CSA report also asserts the less severe effect of the pandemic on major inputs distribution in Ethiopia. The amount of fertilizers distributed in the country substantially increased by 18% between 2019/20 and 2020/21 and the area covered with pesticides increased by 21% during the considered period (CSA, 2021b).

Our sample survey result depicts farmers have been facing challenges related to agricultural inputs. The sampled agriculturalists stated that they encountered production loss due to shortage (63%) and high cost (53%) of inputs among others. They also faced a surge in production input cost (89%), labor cost (79%), equipment cost (97%) and other operating costs (92%). For most, material inputs cost has 'increased' (58%) and about 32% said 'significantly increased'.

Goods importation and distribution including agricultural inputs require an efficient logistics systems and operation for proper delivery. In this connection, a query was posed to the sampled agriculture sector operators regarding logistics challenges. They stated that delays in freight transportation and exaggerated logistics costs (79%), border closures and delays (67%), supply shortages (63%), as well as limited space or frequency of cargo shipments (54%) are the major predicaments related to logistics. Almost all and the greater majority faced a shortage with national (97%) and international (71%) suppliers since the global outbreak of Covid-19.

A mixed response delivered for the query regarding if the collaboration with authorities changed due to the pandemic. Those who said 'decreased', 'same level', and 'increased' accounted for 26%, 39% and 21%, respectively. The same pattern goes for the collaboration extent with national and foreign authorities. Most either said 'same level' or to some extent 'decreased'.

#### **4.5.2.6. Impact on Production/productivity**

Covid-19 affected the operation and growth of businesses in a multitude of ways. Movement restriction, lockdowns, social distancing and other measures taken by governments to contain the spread of the pandemic has obviously a negative impact on business operations as it causes labor shortages, drop in product demands, fall in the number of customers and hence sales, and the like.

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Although most of the interviewed agriculturalists (82%) haven't stopped operations because of the pandemic, the greater majority (89%) declared a decline in business growth after the pandemic. They mentioned profit loss (89%), reduced access to domestic customers (87%), reduced cash flow (76%), domestic supply chain problems (61%), and imbalance of income and expenditure (61%) as major ways business has been affected by the pandemic. According to the FGD conducted in Dire Dawa, the pandemic made perishable agricultural products such as milk and vegetables wasted, introduced high cost of inputs and brought lack/loss of market. Especially those engaged in skin and hides business have been affected severely following large drops in live animals marketing and transactions.

The top challenges identified for production reduction, as reported by the survey participants, include lack of operational cash flow (82%), reduction of opportunities to meet new customers (79%), drop in demand for products/services (74%), and decline in workers' production/productivity from working remotely (63%), among others. Expectation levels on the revenues due to the effect of the pandemic also vary. About 40% expect a fall in revenue of more than half (50%), 16% predict a decrease in their income up to 50% and around 21% foresee a decline in revenues up to 25%. No income difference is expected for 11% due to the effect of the pandemic while about 5% see a rise in their revenue.

As per the respondents, social distancing measures have been slightly (minimum to moderate) affecting their agricultural activities. The effect of Covid-19 in disrupting the implementation of the firm's strategic plan has been 'to some extent' (63%) or 'very little' (18%) as reported by the majority of the respondents. The preponderance (74%) also stated the strategy of their institution would be modified 'to some extent' due to the effect of the pandemic.

#### **4.5.2.7. Government Intervention, Policy and Support Package**

In Ethiopia, the response plan in the agriculture sector includes ensuring agricultural services business continuity, safe and timely distribution of inputs, increased production, domestic and export commodity supply chain and food support to the needy (Getachew, 2020). The economic measure associated directly with agriculture is the removal of the minimum price set by the National Bank of Ethiopia on the horticulture sector for flower exports (Getachew, 2020; Mitik Beyene et al., 2020a). (Guijt, 2020) states the Ethiopian government support doesn't target casual laborers in the agriculture sector. He further called for financial support for small-scale farmers. In general, the government support for the agriculture sector has been minimal as also asserted by the sample survey conducted for this study. Only slightly less than half (47%) obtained support from the government. Financial support, promotion, tax reductions and access to markets are identified as major types of backups from the government. As to whether any other help has been extended from the government to mitigate the effects of the pandemic, the majority (61%) said 'no', with the remaining balance asserting receipt of support packages in either way. Diverse responses were given regarding

the satisfaction level on the government support with the lions share (42%) saying neither satisfied nor dissatisfied, 29% satisfied, 13% moderately satisfied and the remaining 16% disclosed they are totally dissatisfied.

Firms across different sectors have been employing a diverse set of crisis management mechanisms. In this regard, the sampled agricultural firms mentioned the following as their dominant way of handling the Covid-19 pandemic related crisis: prioritizing safety and well-being of employees (74%), adjusting long term strategy and revising annual budget (55%), finding alternative sources of supply (47%), seeking financial support from different organizations (37%), and making changes to production (37%). Most managed the crisis either averagely (34%) or in a good way (58%).

The sampled agricultural firms were requested to identify policy expectations from the government to mitigate the pandemic's effects. The major ones mentioned include grant (77%), provision of working capital to firms (63%), creating access to low interest loans (63%), postponement of tax payments (55%), delaying payment of bills (32%), and subsidizing wages (26%). Operational improvements (82%) and growth in existing markets (87%) were identified as the biggest potential opportunities for their company in the coming periods.

In sum, the Ethiopian government has extended economy-wide supports but the help reaching the agriculture sector has been somehow moderate. Fortunately, the effect of the pandemic on the agriculture sector has been mild compared to other economic segments.

#### **4.6. Tourism and Covid- 19**

##### **4.6.1. Ethiopia's Tourism Sector at a glance**

###### **4.6.1.1. Tourism Sector at the Global Level**

According to World Travel and Tourism Council, tourism is a crucial pillar for economic growth supporting an estimated 330 million jobs and contributing 10.3% of global GDP in 2019. The Tourism industry which has been a rapidly growing segment of the economy works in close ties with multiple sectors such as hospitality services, including lodging, food and beverage, catering, convention service, convention facility supply, transportation, tourism, retail, and entertainment creating an extended value chain.

Social distancing and travel restrictions have become a huge detriment since social contact and traveling have been the lifeblood of the industry thus far. The sector which was projected 1.44 trillion USD by 2025 pre-Covid is now struggling to stand and WTTC (2020)<sup>16</sup> estimates more than 50 million jobs in the travel and tourism sector could be at risk globally.

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<sup>16</sup> World Travels and Tourism Council (2020) Impact of pandemic on travel and tourism, Retrieved from: <https://www.wttc.org/priorities/crisis-preparedness/pandemics/>

The UNWTO World Tourism Barometer also shows the economic toll of the pandemic. International tourism receipts in 2020 declined by 64% in real terms (local currencies, constant prices), equivalent to a drop of over US\$ 900 billion, cutting the overall worldwide exports value by over 4% in 2020. The total loss in export revenues from international tourism (including passenger transport) amounts to nearly US\$ 1.1 trillion.

Asia and the Pacific (-70% in real terms) and the Middle East (-69%) saw the largest drops in receipts. According to the hotel room offer platform, international tourism receipts fell to \$548.9 billion in 2020, a drop of 57.9 percent from the \$1,302.5 billion recorded the previous year.

In total, data shows the industry lost \$753.6 billion in tourism revenue last year. In the United States, the combination of widespread Covid-19 cases and political unrest resulted in the largest decline in international tourism revenue, dropping from \$125 billion in 2019 to just \$89.1 billion in 2020.

As of December 2020, the number of tourists that arrived in Africa from overseas added up to around 1.2 million, contrary to the over 6.3 million international tourists who arrived in the continent in December 2019. The impact of Covid-19 has also progressed to year 2021 and The United Nations World Tourism Organization (UNWTO, 2021<sup>17</sup>) data found that international tourist arrivals were down 83 percent in the first quarter of 2021.

The UNWTO Confidence Index revealed that between January and March of 2021, destinations worldwide welcomed 180 million fewer international arrivals compared to the first quarter of last year. Asia and the Pacific region saw the most significant international arrivals drop at 94 percent, while Europe finished down 83 percent, Africa down 81 percent, the Middle East down 78 percent and the Americas 71 percent. The 73 percent overall drop in international tourist arrivals last year makes it the worst year on record for the sector, but widespread Covid-19 vaccinations and restrictions being lifted have people ready to travel again this summer. The survey of the UNWTO Panel of Tourism Experts found that 60 percent expect a rebound in international tourism only in 2022, up from 50 percent in the January 2021 survey. The remaining 40 percent predict a potential rebound in 2021, down slightly from the percentage in January.

Nearly half of the experts do not see a return to 2019 international tourism levels before 2024 or later, while the 37 percent of respondents predicting a return to pre-pandemic levels in 2023 has somewhat decreased. Vaccinations are believed to be keys for recovery, but testing should be easier and more affordable. Tourism experts point to the continued imposition of

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<sup>17</sup> *United Nations World Tourism Organization (UNWTO, 2021)*

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travel restrictions and the lack of coordination in travel and health protocols as the main obstacle to the sector's rebound.

The collapse of international tourism due to Covid-19 could cost the world at least \$4 trillion in terms of global GDP for 2020 and 2021 according to a report from two United Nations (UN) institutions (UNCTAD & UNWTO, 2021<sup>18</sup>). According to UNCTAD & UNWTO report, tourism is not expected to return to pre-Covid levels until 2023 or later, costing the world somewhere between \$1.7 trillion and \$2.4 trillion in 2021, based on three scenarios (optimistic, pessimistic, and a third scenario in which the uneven rollout of vaccines is considered). On average, in the absence of any economic stimulus, a drop in tourist sales leads to a 2.5 fold loss in real GDP due to linkages with upstream sectors like agriculture, according to the study.

Developing countries could account for 60% of these losses owing to asymmetric vaccine roll-out globally the report said. Tourism is likely to pick up faster in 2021 summer in North America and Europe where vaccination rates are higher. The impact of travel restrictions could be felt particularly by women and young people who are employed in significant proportions by the tourism sector, where barriers to entry are low. Some 100 -120 million tourism jobs are at stake as per the report.

#### **4.6.1.2 Ethiopia's Tourism Sector at a Glance**

The tourism sector was a rapidly growing sector and contributed 9% in 2019 to the country's GDP before the Covid-19 pandemic. The growth of the tourism sector brought a multi-dimensional contribution to the national economy in terms of GDP, employment, and export earnings. For instance, the direct contribution of the tourism sector to GDP has increased from 51.3 billion birr (USD 2.26 billion) which is 4.1 percent of the total GDP in 2015 to \$7.4 billion in 2018 (9.4% of Ethiopia's total economy).

In terms of employment, according to the report of World Travel and Tourism Council (2019), the industry contributes 2.2 million jobs or 8.3% of the total employment. It also shows the sector represents 61 percent of Ethiopia's exports in 2019.

The other dimensions of the contribution that Ethiopia benefited from the sector are socio-cultural integration and knowledge spillover effects. The mentioned contributions of the sector were expected to increase further because of human mobility as the result of rapid advancement of transportation and communication technology and improvement of hospitality service facilities. Ethiopia possesses remarkable tourism potential due to its unique and largely unexplored cultural, historical, and archaeological and natural resources.

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<sup>18</sup> UNCTAD/UNWTO Virtual Press Conference | UN GENEVA, JULY, 2021

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Based on the current list of UNESCO’s world heritage, Ethiopia is number one among the African countries having nine world heritage sites registered. Hence this will have its own contribution in promoting the country and attracting the interest of international/national meetings or events towards the country specifically the city. This is because of the country’s diversified tourism resources.

Tourism is among the major sectors given priority by government’s 10-year perspective development plan as it creates huge job opportunities. Tourism is the highest revenue generator segment of economic activities in many countries around the world as well in Ethiopia. The capital city of Ethiopia, Addis Ababa for instance, serves as a regional and international hub for many meetings, with potential for growth of tour, travel and hospitality industries.

The Government of Ethiopia has set a vision to make Addis Ababa one of the top five tourist destinations in Africa. The sectorial niche serves as the backbone for diversification, generating foreign exchange, national image building and exposure of key tourism assets.

Ethiopia’s business event spending is low, even if the country is the main gate of Africa and strategically located to the Gulf and other continents. It is therefore vital to harness its tourism potential, mainly in tour, travel and hospitality. Like any investment opportunity presenting sector, location matters, and in this regard, Ethiopia is less to no one.

Home to the third-largest number of diplomatic missions in the world, only after New York and Brussels, and as the political capital of Africa, Addis Ababa, and by extension, Ethiopia, is best seated to be a huge hub of conference tourism. Starting from the establishment UNECA in 1958 and of the former Organization of African Union (currently African Union) during the imperial regime in 1963, Addis Ababa is hosting different types of meetings and conferences.

Table 30: Star designated hotels in Ethiopia

S. No.	REGIONS	STAR-RATED HOTELS -2019										TOTAL		TOTAL No. of Star-Rated Hotels
		5 Star		4 Star		3 Star		2 Star		1 Star		No. of Rooms	No. of Beds	
		No. of Rooms	No. of Beds	No. of Rooms	No. of Beds	No. of oms	No. of Beds	No. of Rooms	No. of Beds	No. of Rooms	No. of Beds			
1	Addis Ababa	1,178	1,301	1,818	2,123	1,914	2,292	1,441	1,745	1,573	2,133	<b>7,924</b>	<b>9,594</b>	<b>142</b>
2	Oromiya	32	62	148	248	847	1,103	872	991	1,000	1,092	<b>2,899</b>	<b>3,496</b>	<b>65</b>
3	Amhara			294	339	842	937	381	507	1,011	1,340	<b>2,528</b>	<b>3,123</b>	<b>50</b>
4	Tigray			131	166	281	323	290	413	610	772	<b>1312</b>	<b>1674</b>	<b>26</b>
5	SNNPR			622	699	235	246	268	293	641	685	<b>1766</b>	<b>1923</b>	<b>37</b>
6	Dire Dawa City Admin.			58	64					296	331	<b>354</b>	<b>395</b>	<b>9</b>
7	Harer									69	75	<b>69</b>	<b>75</b>	<b>3</b>
8	Gambella									93	112	<b>93</b>	<b>112</b>	<b>1</b>

S. No.	REGIONS	STAR-RATED HOTELS -2019										TOTAL		TOTAL No. of Star-Rated Hotels
		5 Star		4 Star		3 Star		2 Star		1 Star		No. of Rooms	No. of Beds	
		No. of Rooms	No. of Beds	No. of Rooms	No. of Beds	No. of Rooms	No. of Beds	No. of Rooms	No. of Beds	No. of Rooms	No. of Beds			
9	Benishangul Gumuz							92	118	82	88	174	206	3
10	Afar					44	50	N/A	N/A	88	92	132	142	3
<b>TOTAL</b>		<b>1,210</b>	<b>1,363</b>	<b>3,071</b>	<b>3,639</b>	<b>4,163</b>	<b>4,951</b>	<b>3,344</b>	<b>4,067</b>	<b>5,463</b>	<b>6,720</b>	<b>17,251</b>	<b>20,740</b>	<b>339</b>

Source, MOT, 2021<sup>19</sup>

Since then the country and even the city passed through different performances in hosting international tourists especially using its pre-established venues of African Union and Economic Commission for Africa and some big hotels.

In addition, as a basic component of the tourism industry, Addis Ababa is the main hub of Ethiopian Airlines which plays a significant role in bringing the arrivals/clients as well as selling the city as its destination with easy accessibility, especially for international events. Ethiopia also has other comparative advantages in terms of having top-class hotels, and related facilities (at least in urban areas), and also in terms of having top conference destination cities with attributes that lead to delegate satisfaction.

Despite all these natural abundances, Ethiopia's annual international visitors from 2016 to 2019 had yet to pass one million and as of March 2020, international arrivals decreased by 35.5 percent year-on-year to 118,950 mainly due to decreased flights canceled by Ethiopian Airlines, forced by the outbreak of Covid-19 (MOT, 2021).

#### 4.2.3.1 Performance of the tourism sector

The tourism sector was a rapidly growing sector and contributed 9% in 2019 to the country's GDP before the Covid-19 pandemic. In 2019, the contribution of the sector to GDP for Ethiopia was 8 billion US dollars (MOT, 2021).

As the table below shows, the number of foreign tourists visiting Ethiopia in the year 2018 was reported to be 849,122, and 811,604 in 2019, which has shown an impressive growth since it has more than doubled in the last decade. As of March 2020, international arrivals in Ethiopia decreased by 35.5% year-on-year mainly due to decreased flights, as well as cancellations by Ethiopian Airlines, which flies to over 80 destinations worldwide from Addis Ababa.

<sup>19</sup> Ministry of Tourism (Ethiopia)

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Accordingly, 2 billion USD has been generated and some 598,700 international tourists have visited the country in 2020 amid the Covid-19 pandemic. Covid-19 has resulted in the loss of 1/3 of the country's income from tourism.

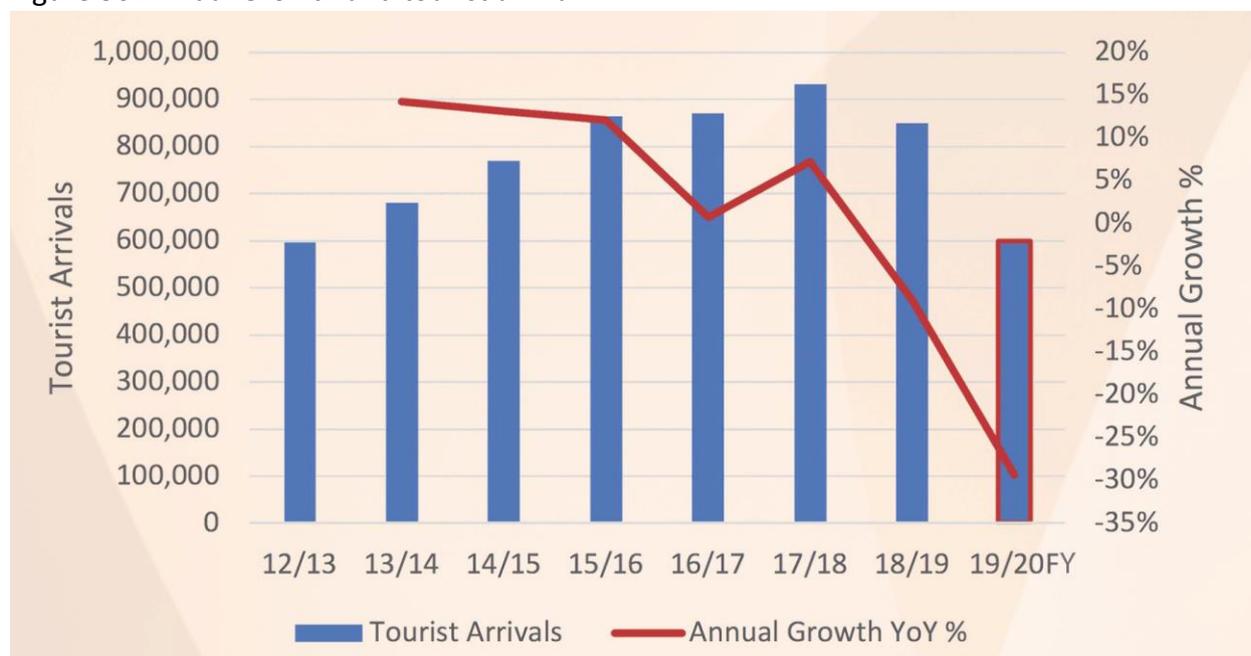
Table 31: International Arrivals by Purpose (2016 to 2020)

Year	Business	Conference	Leisure & holidays	Transit	Visiting friends & relatives	Not stated	Total Arrivals	USD Amount
2016	98,789	55,650	325,501	256,250	60,752	73,655	870,597	3,259,515,168
2017	54,899	16,909	432,687	325,844	47,685	55,320	933,344	3,494,439,936
2018	134,318	62,077	316,171	170,377	61,681	104,498	849,122	3,179,112,768
2019	119,548	57,013	303,948	183,434	54,138	93,524	811,604	3,179,112,768
2020	87,533	34,786	197,645	143,756	45,268	76,777	598,765	2,078,345,000

Source; Ministry of Tourism, 2021

International arrivals in Ethiopia have been growing steadily with little ups and downs over the past four prior-Covid years. The majority of the arrivals (about 40%) are for leisure and holidays, followed by transit (27%) and business travels (12%). Conference holds 6% of the arrivals.

Figure 36: Annual Growth and tourist arrival



And before the pandemic hit, the Ethiopian Ministry of Tourism had expected this to increase even further and predicted it to be 2.5 million arrivals per year by 2020. In 2018, the Ethiopian Travel and Tourism economy grew by 48.6%.

#### **4.6.1.3 Covid-19 and The Ethiopian Tourism Sector**

##### **4.6.1.3.1 Impacts on the Hotel Industry**

Ethiopia currently has upward of 21 internationally branded hotels under development which in theory could add around 4,300 rooms.

According to the hotel marketers association, the impact of Covid-19 in Addis Ababa has seen 88% of hotels either full or partially closed and the market will take some time to recover. The opening up of the economy represents the most significant opportunity to fuel this recovery, as this would increase the number of multinationals that are based in the country, and in doing so increase hotel demand.

Looking at the current performance of the hotel from the accommodation sub-sector gives us a clear picture of the effect of the pandemic. According to an interview conducted with Fantu Gola, owner of the 3-star hotel and consultant, hotels occupancy rate reduced from 80-85% before the outbreak of the Corona virus to 50% immediately after the first case was announced on March, 2020. The same interviewee also added that, in April, very few hotels were operating with only 2-5% of the capacity while 80% of hotels in Addis Ababa were in the way to shutting down and thus, they were forecasted to lose \$35 million per month. This leads to loss of jobs which increases unemployment in the country. Moreover, according to the association of Addis Ababa hotel owners, 82% of hotels in Ethiopia have bank loans and banks are expecting them to re-pay their debt.

Due to the above-discussed reasons, hotels were not performing in full capacity and were unable to generate income. Hence, they are not in a position to pay their loans and even salaries for workers if the crisis continues for more than three months. Added these, they were also expected to pay utility expenses (like electricity, telephone, and water supply), and taxes which jeopardize their operation causing a total collapse of the business.

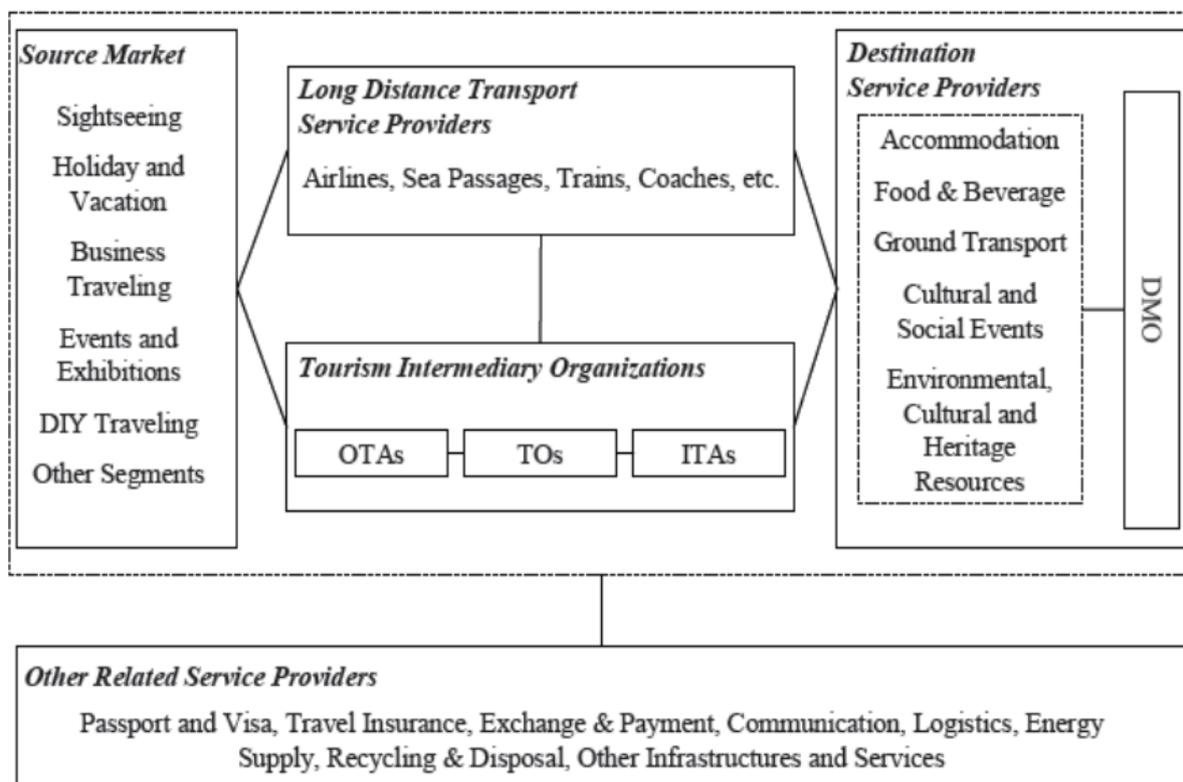
There are a lot of evidences that hotel, restaurants, bars, barbers/saloons, taxis, and tourist sites are facing a complete loss of customers. As a result of a decline in sales/revenue, particularly in the year 2020 many hotels had started giving their workers mandatory leave (some paid and some unpaid) on the expectation that the situation will be temporary. According to a 2020 study by Hotels Owners' Association, hotels in partial closure, complete closure, and relocated quarantine facility constitute 32%, 56% and 12% respectively. Moreover, current city-wide occupancy (the percentage of all available hotel rooms that are occupied at a given time) stood below 2% from 645 in 2018/19 showing an estimated revenue

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loss of USD 35 million per month. Hotels in regions reportedly lost up to USD 10 million per month due to lower occupancy level in March and April 2020.

In fact, the Covid -19 pandemic affects the entire travel, tourism and hospitality industry value chain system both from the demand and supply sides. Trains, buses, airlines, car rentals and other modes of transport have been negatively affected due to travel restrictions and lockdowns countries declared. Several hotels, lodges, restaurants, tourist attraction sites, and others closed; events canceled or postponed; travel and tour agencies blockaded and many more. According to WTTC (2017<sup>20</sup>), Travel and Tourism industry generates 10% of employment around the world and as mentioned before the sector had created 2.2 million jobs in Ethiopia in 2019. It also contributed to \$7.4 billion to Ethiopia’s economy in 2018<sup>21</sup>. The diagram below maps the likely occupations affected along the tourism supply value chain system.

Figure 37: Tourism Service Supply Chain System



Source: Adapted from (K.Hong & Zailani, 2014)

#### 4.6.1.3.2 Aviation Vs Tourism

Similarly, transportation has been the key contributor to the economy in general and the tourism sector in particular. After the spread of Covid-19, because of visa restrictions,

<sup>20</sup> <https://worldtraveltourismcouncil.medium.com/where-does-travel-tourism-create-the-most-jobs-4c3347670a78>

<sup>21</sup> WTTC Ethiopia Report (2019)

grounded flights, prevailing lockdowns, travelers canceling their current as well as future visit schedules are significantly hindering the tourism industry benefits flows from the transportation sector.

According to International Air Transport Association (2020), the economic effects of the Covid-19 pandemic in Ethiopia pertaining to the airline industry and allied businesses cost the country some USD 1.2 billion and are predicted to affect more than 323,000 jobs.

On the press release (March 21, 2020) by Tewolde G/Mariam, CEO of Ethiopian Airlines, revealed that the airline registered a loss of \$190 million because of seizing flights from 80 countries. As of April 8, 2020, the airline announced that it lost \$550 Amid Covid-19 (losses associated with the Ethiopian airlines discussed under the logistics and transportation analysis section of this study).

The demand of local passenger flights was also reduced to 50%. Land transport restriction 9 made by the government has also highly affected the sector. This loss is directly or indirectly shared by the tourism sector.

#### **4.6.1.4. Sample Survey and Results and Discussions**

Business actors in the tourism sector are playing a significant role in the development of the nation through marketing the country as a tourist destination and by creating new jobs and income for the host community. To meet the objective of this study, we have reached out to 125 business firms, selected randomly, working directly and indirectly in the tourism industry. The following are the major results and findings of the Survey focusing on the tourism sector.

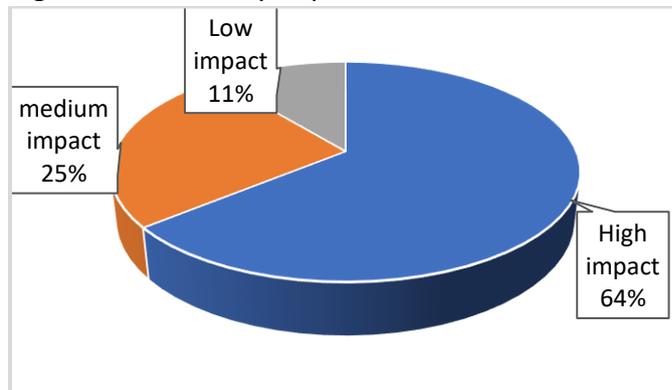
##### **4.6.1.4.1. Financial Impact**

Referring to the methodology section of this study, the sample survey has reached out businesses (31%) working directly in the tourism industry (hotels, bars and restaurants, tour operators, souvenir shops, car rental etc). A total of 125 samples in the tourism sector were taken from five cities of Ethiopia, the majority of which are from Addis Ababa (73%), Hawassa (8%), Adama, Bahir Dar and Dire Dawa are the same (6.4%) each. Majority of the respondents (66.4%) were owner and Managers, with the rest (33.6%) being employees, spouse and relatives of the business owners. Ownership of the sampled businesses is dominated by sole proprietorship (80.8%) followed by private limited company /PLC (17.6%) and others (12%) form of organization.

Critical reflection captured from the survey is the likely impact of Covid-19 on the financial sustainability of businesses in the tourism and hospitality sector. The result in this regard shows the same concern. As can be seen from the figure below, majority (96%) of them responded that the impact is manifested in their financial sustainability. They have been impacted highly and struggle financially and forced to complete closure of business. Very few

Companies (1.6%) with strong financial muscles, such as above three star hotels, have been impacted financially but able to endure the storm.

Figure 38: The likely impact of Covid-19 on financial sustainability



Source: Sample Survey, 2021

However, majority of the respondents (61%) have approached financial institutions for accessing financial support. And majority of them (67%) have got positive/favorable responses from banks and other financial institutions. The rest 27% were waiting and 4 % were rejected by the institutions. Yet, 76 % of the respondents from the tourism and hospitality sector couldn't get any financial support from the government schemes to cover their severe loss. Due to these and other reasons majority of the respondents (74%) were unable to pay staff wages and salaries and therefore faced cash-flow shortage to maintain staff and business operations alive.

The outbreak of Covid-19 in March 2020 followed by the partial lockdown declaration by the Government of Ethiopia forced them to close their services, cancel many bookings/events /gatherings and lose their customers which led to a decrease in service sales and lose more revenue. According to the survey result majority of the respondents (94%) said the revenue has decreased and significantly decreased) and also 93% of the respondents replied that their total sales declined and significantly declined. As a result of Covid-19, a large number of respondent companies in the tourism and hospitality industry have experienced a decrease/decline/ in revenue and profit even incurred loss. However, a significant number of respondents (58%) reported that the impact of Covid-19 didn't change on their businesses. They were able to settle any tax liabilities. As far as the business subsidy is concerned, 82 percent of the survey respondents said they didn't expect any business subsidy in times of the pandemic.

#### 4.6.1.4.2. Input/Supply side and employment challenges

Covid-19 continues to cause disruptions to domestic and global supply chains. According to the survey majority of the respondents (92%) faced supply side shortages from local and abroad ones.

Majority of the respondents (83 %) from the survey revealed that costs related to upgrading, acquiring and maintaining physical equipment have been increased. As far as the market price is concerned large number of the respondents (76%) reflected that the market price of products or services has increased.

Generally, the pandemic impacted tourism businesses as evidenced in direct closures of hotels, restaurants, markets, entertainment, cafeteria and other food outlets; restrictions on the movement of customers and tourists; income losses across sectors; reduction in purchasing power, and so forth. According to the survey results, the major areas that affected the tourism businesses by the pandemic were the reduction of access to domestic and foreign customers, loss of profit, and supply chain constraints. As one hotelier participant from Bahir Dar FGD<sup>22</sup> narrated:

“Bahirdar is a resort city with a diverse natural, manmade and historical tourist attractions. The city is home to several hotels, cafes and restaurants because of such attractions. Unfortunately, Covid made hoteliers shut off their facilities in large scale. Restaurants deserted, beds emptied, sport bars and spa departments closed, staffs furloughed and laid off, and many more. The pandemic categorically hit hard our sector than any other businesses.”

The majority of the respondents (65%) responded that domestic clients have been affected and demand is lower than normal. About 39% also faced a decrease in profits and incurred loss and 72% of businesses reported that the major challenges for the drop in service /product demand is inability to obtain buyers/ secure contracts (Market drain).

Covid-19 has forced many companies to lay off their employees. Accordingly, majority of the respondents' replied that they have reduced either their staff slightly (63%) or maintained (20%). Around 58% of the respondents also revealed that the negative impact on their businesses is manifested by reducing workers' engagement to work and results in unemployment.

The dominant majority (49%) responded that Covid-19 has forced companies to decreased/significantly decreased employees but 30% of them are still maintained their staffs. According to one FGD participant from Bahir Dar, hoteliers, for instance, had to take assorted measures to mitigate the pandemic's effect such as laying off their employees. They first tried to maintain their staffs for a few months, but soon realized this couldn't stay long without adequate company income and thus forced to drop up to half of their employees to survive. Loan financing was another survival strategy. Support packages such as tax reductions, forgiveness and suspensions, preparation of Covid-19 protocols, advocacy as well

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<sup>22</sup> The FGD was conducted in Bahir Dar city on July 27, 2021.

as awareness creation campaigns regarding the virus, etc helped somehow in lessening the pandemic's impact.

We observed that the pandemic's turbulent times contributed to emboldening staff-employer relations. As pointed out in Adama's FGD, managing Covid -19 protocols imposed by the government contributes to the rise of the hotels and restaurant's different operating costs, yet, it created a sense of belongingness among staff members following different staff retaining measures taken by hotels. Mr Hassen Areba from Rift Valley (Caneth) hotel in Adama city says:

“One of the challenges faced during the Covid-19 related state of emergency declared between April to September 2020 was retaining our 70 to 80 permanent staffs since we had almost nil customers. Because the hotel decided to retain its employees during that turbulent times, a strong sense of belongingness has been created by almost all of the staff”.

#### **4.6.1.4.3. Impact on service provision and productivity**

A reflection captured from the survey vividly shows the likely impact of the outbreak on the level of service provision. The most significant response (92%) revealed that the level of service provided by their companies declined. As to growth patterns of enterprises after the outbreak of Covid-19, the majority responded that their business has shown declining (92%). Those who said 'constant', 'expanded and 'no comment' growth patterns accounted for 3.2%, 2.5% and 2.3%, respectively. All in all, one can learn from their responses that business performance has been negative in the past one year. Almost half of the respondents (50 percent) in the tourism and hospitality sector have been quitting their operations due to the Covid-19 pandemic. Companies in the hospitality sector are very much concerned of the virus's outbreak and its impact on their business, since travel restrictions have made most of in the person meetings cancelled.

Another reflection captured from the survey is the likely business confidence of businesses to recover from the pandemic. The result in this regard shows a mixed outcome including 'confident', 'very confident', 'neutral' and 'discouraging' ones. Significant businesses (31%) are very optimistic and confident that the tourism and hospitality industry will recover after the Covid-19 crisis. About 37% of the reported as 'neutral' and 22% being discouraged to recover from the pandemic.

Good numbers of the respondent businesses (77%) help to better realize firm's shortcomings and solve existing problems. Crises do have a way of calling out innate leaders to emerge and take key roles. This pandemic grants an opportunity to their business leaders to pause and take note of the latent talent resident in the organization.

#### 4.6.1.4.4. Government Intervention

The interviewees inquired to mention whether there were supports from the government or not and about three fourth (76%) stated that they never received any support from the government to help them deal with the effects of the pandemic. The lion's share also expressed their skepticism on the adequacy of the response from the government to handle the pandemic's effect in general. In this regard, 34% expressed their total dissatisfaction, 17% moderately satisfied, and 39% are neither satisfied nor dissatisfied (neutral).

Despite the dominant 'no-support' opinion of the survey participants, the National Bank of Ethiopia (NBE) approved a 3.3 Billion Birr financial stimulus package applicable until November 10, 2020 following the 6.6 billion Birr financial support request made by hotels for the hospitality sector. According to the NBE, the 3.3 Billion Birr soft loan (at 4.5% interest rate) is based on a six month impact analysis that banks should provide for their clients' financial needs, explicitly to address salary and operational expenses. Participants of the FGD in Addis Ababa, however, disclosed that, "no more than ten percent" of the allocated amount actually reached the target sector. They added that the allocation mechanism was not transparent and size-biased, meaning small and medium hotels and others not adequately addressed.

The Covid-19 pandemic is a challenge for employers and business organizations all over the world. According to the survey result, half (50%) the respondents replied that the level of crisis management at the institution level were found good /very good in times of the Covid-19 crisis so that their businesses can be sustained and transformed, with the remaining balance narrating the opposite.

Collaboration is indispensable to increase organizational efficiency. Identifying why, how, and with which organization to collaborate with stakeholders like authorities is essential to maximize the benefits that can accrue from the cooperation. Accordingly, the majority of the respondents (57%) reported that the level of collaboration with authorities was the same level/not changed/due to the Covid pandemic. About 13% said that the level improved while in contrast 14% stated deterioration of collaborations. Majority of the respondents (69%) revealed that since the Covid-19 impacts in the tourism industry are long-lasting (some are still not able to operate at full capacity) and expecting additional measures from the government such as further postponement of tax payments.

Table 32: Policy expectations

Type of Policy Expectations by the enterprises	Percentage shares
Postpone the tax payments	69
Delaying payment of bills	28
Access to low interest loans	17
Subsidizing wages	16
Grants	10

Type of Policy Expectations by the enterprises	Percentage shares
Providing working capital	9.6
Others	5

Source: Own study, 2021

In fact, several challenges associated with the long term effect of Covid were raised in the Addis Ababa FGD. As per the participants, the pandemic was originally thought to last out not more than a year, but now well beyond the mark. Support packages introduced slowly started to fade away, making hoteliers and others in the sector on the brink of collapse. Previously delayed loan repayments as part of the support measure now awakened making the already hard hit and unrecovered sector at risk.

Majority of the respondents (77%) reported that the Covid-19 pandemic has disrupted the implementation of the strategic plan at the company level. As the same time, 67% of the respondents said to some extent the need for considering, rethinking and developing their new strategic plan.

According to the survey results, the government has provided support in the form of profit tax immunity, pension contribution exemption and employee income tax relief to share this burden. Other supports such as up to two months of office rent relief and employee salary forfeit were also some of the supports obtained during the crisis. But these measures taken by the Government of Ethiopia were not enough to cover the severe loss and measures such as direct government subsidies, provision of favorable loans, tax deferment would help the companies recover well in a short period of time possible.

#### **4.6.1.4.5. Recap on impact of Covid-19 on Tourism and Hospitality industry**

Ethiopian tourism industry is hit hard by the current pandemic and attributes the down of the international flights for tourism to get into crisis as there appears no traveler coming to Ethiopia. Countries across the board have taken swift actions to deal with the pandemic, including financial stimulus and support packages, and there has been great cooperation between countries and between communities, the medical profession and the science community with data sharing and support across borders.

Likewise, similar measures have taken in Ethiopia to rescue business as well as to mitigate the impact of Covid-19. Ethiopian financial institutions should further bolster their support to the ailing business entities to escape further damage. The tourism sector has created job opportunity for more people noting that it still pays the salary of employees despite the closure of businesses and worries about what the future holds.

Today the tourism sector commonly known under the name of the smokeless industry contributes to economic diversification and actively stimulates the rational use of cultural-

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historical and natural recreational resources. Like in any other country, the coronavirus pandemic in Ethiopia affected every industry, and the tourism industry is among those hit hard. Under the conditions of harsh travel restrictions and closed borders, the Ethiopian tourism industry (hotels, restaurants, cultural houses/clubs, tour and travel etc) has faced with a sharp reduction of demand. No doubt that all along the value chain was affected seriously as narrated by one of the tour operator participants on the FGD conducted in Addis Ababa on August 20, 2021. Mr. Kiros Mehari from Ethiopian Tour Operators Association has extensive experience in the tour operating services. He feels that, unlike other industries, the tour operator industry has been severely impacted by the Covid-19 pandemic. He went on to say that the tourism sector's supply chain is excessively long (air transport, hotels, food and beverage, guides, sovereign sales, animal transport, ec), and that the tour operator is one of the most affected elements in the chain. He said:

“We acknowledge that the government has provided financial assistance to the industry. However, before we can get out of this mess, we must return the debt. Furthermore, we have requested an excessively high-interest rate”.

Ethiopian Airlines, hotels, car rental companies and other tourism-related businesses have experienced significant material losses and which they overcome the effect yet. To meet the objective of this study, we have reached out to more than 125 organizations, selected purposively, working directly and indirectly in the tourism industry.

The companies changed the way they operate to keep their employees safe while obeying to the nationwide state of emergency announcements. At a firm level, different strategies to cut cost and mitigate the cash shortage have been taken and the government has also supported the business through tax exemptions. But the hit is so hard to this sector, the Covid-19 impacts are so substantial and difficult to overcome in a short period of time.

#### **4.7. Ethiopia’s Transport and Logistics sector Vs Covid-19**

The transport sector is part of the discussion on this section on top of the logistics. This is due to the fact that transport and trade are very much related. Transport facilitates mobility which intern facilitates trade. The principal role of transport is to provide or improve access to different locations for businesses and individuals, for both freight and personal movements.

For the business sector, this involves connections between businesses and their suppliers, between businesses and other businesses, and between businesses and their markets. For the household sector, transport provides people with access to workplaces, schools and shops. It connects them to social, recreational, community and medical facilities for personal and leisure activities are important in trade activities. The connection between transport and trade flows is clear. Transport improvements can present firms with a range of opportunities to reorganize their production and distribution channels to achieve cost savings that could

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not otherwise be achieved. Be it publicly or privately run, the passengers transport sector is part and parcel of the big network and hence this assessment covers the transport segment too in addition to the logistics wing. In view of that, the subsequent sub section briefly discusses the country’s road, rail, air and maritime status along the brief impact of the pandemic on these economic segments.

#### 4.7.1 .Ethiopia’s Transport and Logistics sector at a glance

##### 4.7.1.1. Road Transport Service

Among the various transportation options, road transport is the most important means of transportation in the world that moves large number of people and goods from place to place. The Ethiopian domestic transport demand is highly dominated by road transport which accounts for 95% of the entire means. The number of vehicles engaged in public transport has significantly increased over the last five years. For instance, public transport vehicles with a capacity of 5 - 11 persons has increased from 18,310 in 2015 to 89,680 in 2020 (EPDC, 2020). Similarly, vehicles with a seating capacity of 12 or more people witness a 68% increment per annum since 2007. The number of three wheeled vehicles and buses also significantly increased over the last years.

In terms of access to transport services, cross-country routes have increased from 162 in 2015 to 225 in 2020, registering an average annual growth of 8.5%. Ethiopia also started cross-border public transport service with Sudan. Apart from urban transport, the travel volume from one urban center to another has increased from 394 million in 2015 to 722 million in 2020, with an average transport capacity increment of 13.5 percent per annum. Urban mass transport services are provided in Addis Ababa, Adama, Hawassa, Mekele, Jimma, Bahir Dar, Dessie, Gondar, Dire Dawa, Jijiga and Bishoftu cities. Addis Ababa by far generates the highest travel demand in the country. Without including light rail services, the average daily traffic demand in Addis Ababa is 4 million which only 2.73 million (68.2%) are in service. Both the country and the city witnessed an expansion of public transport services over the past years. For instance, the Addis Ababa public service transport enterprise has increased its annual transport capacity from 7.6 million to 36.9 million passengers in the 2019/20 using own and rented vehicles (EPDC, 2020)..

Table 33: Vehicles and Transport services in Ethiopia (number)

Year	Vehicles more than 12 people	Three wheeled vehicles	Public Transport served	Public services buses for Govt workers
2015	19,261	49,033	7.6million	55
2020	84,700	128,709	36.9 million	430

Source: (EPDC, 2020).

In rural areas, the Universal Road Access Program (URRAP) has many facets to provide formal and informal transportation services, but in many areas, formal transport services are not fully provided. Out of the 3,658 kebeles with roads, 67 percent are receiving regular transport services in the 2019/20 (EPDC, 2020).

Despite commendable efforts done to improve the transport situation, public transport supply and demand inconsistencies, poor transportation and management systems, gaps in access to rural and urban areas, lack of implementation of the private sector incentives, lack of expansion of public transport services, and limited supply and share of non-motorized transportation systems are still the challenges.

The task continues to be hampered due to lack of a transport policy that promotes mass transport at the national level, lack of organization and coordination, lack of accessible transport infrastructure, the limited capacity of service providers, lack of trained manpower, and lack of funding (especially foreign exchange).

#### **4.7.1.2. Railway Transport Service**

The 34 kms Addis Ababa Light Rail Transit (LRT) and the 756 kms Addis Ababa-Djibouti Railway are the only functional rail lines infrastructure. In addition, the existing Ethio-Djibouti Railway is operating on a 210 km of railway line. It has been five years since the Addis Ababa LRT commenced operation. The Addis Ababa-Djibouti Railway Commercial operation started in January 2018. The later is the country's first long-distance electric railway line with high design capacity to serve 7 pairs of trains which planned to deploy 358 passenger trains (0.5 pairs per day) during the 2019/20 budget year to transport 124,000 passengers, and deploy 1,080 freight trains (1.5 pairs per day) to carry 928.8 thousand tons of goods. Its achievement was 64% for passenger transportation and 146% for cargo.

The existing Ethio-Djibouti Railway currently operates four locomotives and nine-passenger carts. The performance of Addis Ababa-Djibouti Railway in 2019/20 was significantly reduced in the passengers segment due to the pandemic but highly increased that of the cargo service. The number of passengers in Addis Ababa LRT has increased from 30.1 million during its start of operation in 2015/16 to 39.6 million in 2018/19, an increase of 31.8 %. However, that number dropped to 29.5 million in 2019/20 due to the Covid-19 outbreak. During the first five years of its operation, it was able to transport 169.5 million passengers. It has been operating under capacity in the last five years. According to ERC, the plan was to carry 300,000 passengers daily since 2015/16, but only achieved 31.4% of its target.

Major challenges during the Addis-Djibouti railway service delivery were gaps related to design and construction, security problems, power outages, frequent traffic accidents, lack of access to spare parts due to shortage of foreign currency and low loading and unloading

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services. The main reason for the low performance of the Addis Ababa LRT is the failure to build additional railway infrastructure planned, shortage of spare parts and lack of train workshops power interruptions and similar others.

#### **4.7.1.3. Air Transport Service**

Apart from transporting passengers and goods (especially perishable), air transport contributes significantly to the country's economy by creating jobs, generating foreign exchange and supporting trade and tourism. Ethiopian airlines transported about 10.2 million international passengers, two million domestic passengers, and 2.6 billion tons of cargo in 2019/20, a significant increase compared with the figures before five years. The airline has 22 domestic and 128 flight destinations as well as 130 aircraft as of 2021. The country had 24 aviation sector operators including 8 airlines in 2019/20, up from 10 in 2014/15.

By modernizing communication, navigation and scanning equipment at 22 airports and 6 air traffic control stations, the country's airspace coverage has reached 97 percent at the moment. The main gaps in the sector include lack of skilled manpower, lack of airstrip and helipad to domestic tourism destinations, inadequacy to render adequate service in transporting perishable agricultural products at the required level, and the inability of most built airports to cover their costs.

#### **4.7.1.4. Logistics and Maritime Service**

##### ***Logistics***

Ethiopia's logistics performance ranked 126<sup>th</sup> out of 160 countries according to world bank report of 2020. About 95% of the total cargo in the country is transported by road freight service. There were about 55,797 trucks with a capacity of less than 10 quintals and 146,263 trucks with a capacity of more than 10 quintals in the country as of 2019/20. The former and the later has registered an annual average growth rate of 16% and 10.5%, respectively since 2015/16 (MOT, 2020).

Freight transport operators (service organizations and associations) are organized as domestic and cross-border service providers. About 120 domestic, 105 cross-border and 59 special freight carriers are operating in both categories in the sector. Of these, 155 are unions (55%) and 129 (45%) are share companies and privately owned. A total of 2,482 domestic and 12,766 cross-border vehicles are in operation. In terms of service life, on average, 44.6% of vehicles are under 10 years old and 56.4% are over 10 years old. In addition, 3,107 liquid transport trucks are in service. On average, 75 percent of vehicles are under 10 years old and 25 percent are over 10 years old (MOT, 2020).

## **Maritime**

Ethiopia had ambitiously planned to expand its maritime related services during the second Growth and Transformation Plan/GTP period (2015/16 to 2019/20) although most of these were not achieved due to various reasons. The country has about 9 multipurpose general cargo ships and two oil tankers with a capacity of 329,000 tons at a time, 41,500 tons (77,000 metric tons), most of which were procured and commenced service in the planning period. With the development of the national ship registration policy, the number of ships increased from 9 in 2014/15 to 50 in 2019/20. Domestic water transportation is being served on Lake Tana and the Baro River. In 2020 the transported cargo capacity amounts to 79.4 thousand tons (MOT, 2020).

### **4.7.2. Covid Impact on Ethiopian Logistics and Transport Industry**

#### **4.7.2.1. Covid-19 mitigation measures in the transport sector**

The Ethiopian government took different measures to minimize and prevent the impact of Covid-19 on the transportation sector especially during the five month state of emergency declared in early April 2020. In alignment with the Government's preventive measures to contain the spread of Covid-19, companies have introduced a wide array of measures to support their businesses and employees, including:

- Public transport disrupted/halted, and freight transport allowed/continued minimally;
- Ethiopian Airlines suspended flights to more than 80 countries and the government declared a 5-month State of Emergency since April 2020;
- Transport authorities have set-up hand-washing basins at a bus station and office entrance, and initiated digitizing transport related payment services to reduce contacts;
- Social distancing guidelines for passenger vehicles including rail, bus, and taxicab services and air passenger transport; and a number of portable hand-wash basins are placed in the open road at the bus/train station/park and offices entrance;
- Various Covid-19 restriction measures have been employed (distancing, team rotation, health measures and sanitary protocols such as mask, gel, disinfection);
- Telecommuting, change in working hours and decreased number of on-site personnel (e.g. bus operators, freight transport dispatchers);
- Repurposing underutilized passenger aircraft in order to increase their cargo capacity, and repurposed cross-country buses for city bus service;
- Public transport services reduced seating by 50 percent by tagging seats;

- Provide shuttle services (pick-ups) for the staff and distribute toolkits for the drivers.
- The government announced schools, sporting events, public gatherings, entertainment spots and nightclubs be suspended (e.g., closure and redesign of markets);
- All arriving passengers into Ethiopia after 20 March to be subjected to mandatory 14-day quarantine; and closed all land borders and deployed security forces to halt the movement of people along the borders;
- All public transport vehicles are obliged to carry passengers by half of their normal capacity;
- Ethio-Djibouti railway passenger transportation has been closed.

#### 4.7.2.2. Impact of Covid-19 on maritime services

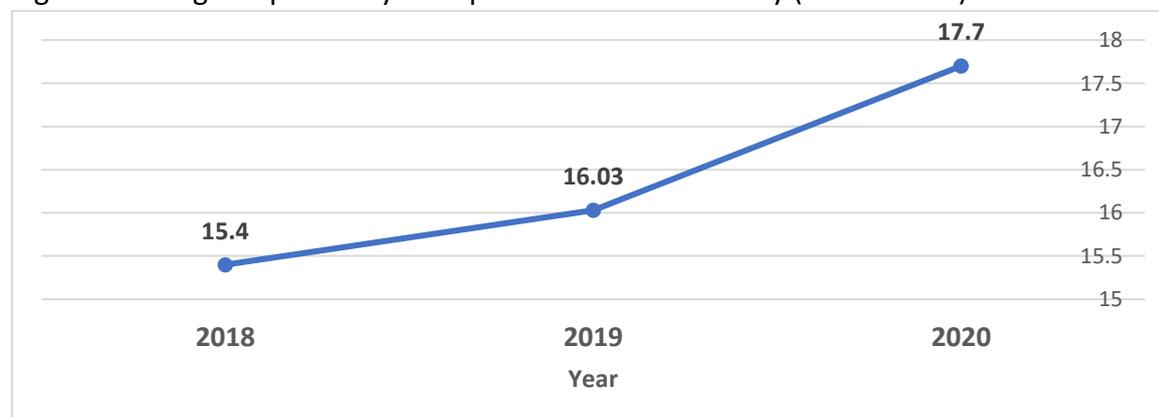
According to the Ethiopian Maritime Authority, the Covid-19 pandemic has affected its logistics operations in a positive way. The cargo amount carried by the Authority in the past three years including both the imported and the outgoing items has shown a significant increment. Particularly the cargo movement between 2019 and 2020 was so dramatic, registering a staggering year on year growth of 10.4% which apparently shows the favorable effect of the pandemic on cargo shipment.

Table 34: Cargo transported by shipment

Description	Year		
	2018	2019	2020
Cargo Amount (ton)	15,400,000	16,030,000	17,700,000
Difference (ton)		630,000	1,670,000
percentage		4 %	10.4%

Source: Ethiopian Maritime Authority, 2021

Figure 39: Cargo shipment by Ethiopian Maritime Authority (Million tons)



Source: Ethiopian Maritime Authority, 2021

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In relation to international shipping cargo movement and logistics activities, container trade and port volumes declined over the first months of 2020 as a result of the Covid-19 pandemic. (ITF, 2020) Container freight rates have remained fairly stable because carriers have idled capacity, yet the high debt level of container carriers creates insolvency risks. In general, despite the deteriorating economic conditions, ocean freight rates have remarkably remained stable in 2020 since the onset of the pandemic both at a global level and along the trade routes for the moment most affected by the economic standstill: Asia-North Europe, Asia-Mediterranean and Asia-North America West Coast (ITF, 2020). But most recently, shipping container crisis unfolded which is triggered by the pandemic. The shipping container prices surged up to ten fold in 2021 compared with the levels in 2020<sup>23</sup>. The pandemic induced disruptions in global trade make difficult to maintain the global timetables that regulate intercontinental shipping. Already affected by stagnating supply and increasing demand for containers and shipping space has aggravated the container crisis appeared globally in recent times (2021).

#### 4.7.2.3. Addis Ababa Light Rail Transit

The Covid-19 pandemic has severely impacted the LRT service of Addis Ababa. The city has 39 LRT stations and services of these stations had been shrank by two-third (only 13 stations were operational) due to the pandemic during the early stages of its booting in the country. As per information obtained from ERC, the daily average number of passengers had been cut to a mere 30,000 from around 104,000 (equivalent to a cut in the number of passengers from 364 to 64 per trip) immediately after the onset of the disease in the country in March 2020 with the objective of preventing spread of the virus. This makes the daily average number of passengers and revenues slashed by a staggering 71% as elaborated in the table beneath.

Table 35: Impact of Covid-19 on Addis Ababa LRT operations

No	Light Rail Transit Index	2020 (since April)	
		Before Covid-19 pandemic	After Covid-19 pandemic
1	Average Number of Passengers	104,075	30,000 < 71%
2	Maximum number of passengers	131,626	
3	Revenue from Ticket sales	408,225	120,000 < 70.6%
4	Maximum Revenue earned from Ticket	512,536	

Source: ERC,2021.

There has been a visible impact of the pandemic on the number of passengers and revenues in 2020/21 period too. Comparison made for the years 2020 in fact tells the same history - a

<sup>23</sup> <https://www.dw.com/en/coronavirus-pandemic-triggers-shipping-container-crisis/a-57162384>

staggering 45% and 46% drop in the number of passengers and revenues, respectively between 2020 and 2021.

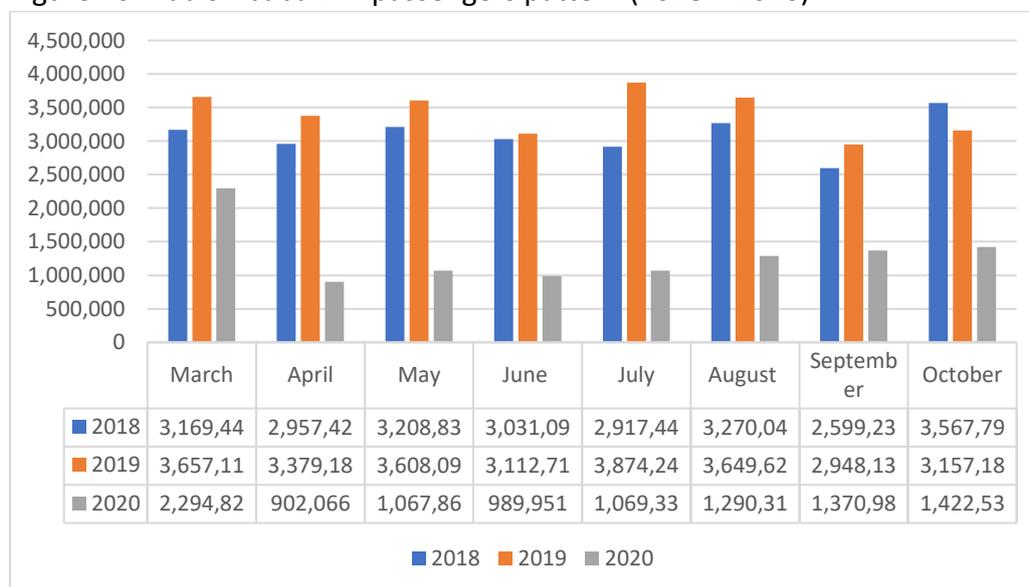
Table 36: Addis Ababa LRT Index

No	Light Rail Transit Index	Unit of meas.	2019/2020	2020/2021	
			Before the Covid - 19 Pandemic	After the Covid -19 Pandemic	
1	Average number of passengers	Number	104,075	56,425	< 45%
2	Maximum number of passengers	Number	131,626	95,306	< 28%
3	Revenue from ticket sales	ETB	408,225	225,700	< 46%
4	Maximum revenue earned from ticket	ETB	512,536	381,224	< 26%

Source: ERC, 2021

A year – on - year comparisons across months in the past three years further explains the pandemic’s effect on the size of commuters. All the considered months, except March, witnessed more than 50 percent drop in the number of passengers between 2019 and 2020. The number of passengers start to rise In September and October 2020 because of the end of the state of emergency and the relive of restrictions.

Figure 40: Addis Ababa LRT passengers pattern (2018 – 2020)



Revenues obtained from the LRT ticket sales also dented significantly. The lowest ticket revenue has been recorded on April 2020 with 3.6 million ETB, a 63% decline as compared to the previous year April 2019.

Table 37: Revenues pattern from Addis Ababa LRT ticket sales in ETB (2018 to 2020)

Months	Revenue from ticket sale			
	2018	2019	2020	Percentage decline
March	9,448,616	10,646,030	9,179,440	14
April	8,847,644	9,652,458	3,608,264	63
May	9,584,902	10,344,777	4,271,646	59
June	8,969,576	8,884,988	3,959,804	55
July	8,713,262	11,072,954	4,277,336	61
August	9,725,497	12,055,720	5,161,256	57
September	7,743,797	11,797,520	5,483,928	54
October	10,572,350	12,626,360	4,646,509	63

Source: ERC, 2021

The average revenue in 2018 were 9.2 million ETB which increased to 10.8 million ETB in 2019. Revenues in 2020 has been very much lower compared to the previous years due to the effect of the pandemic as plainly depicted in the table above.

All in all, the pandemic has had a dramatic impact on the operations and revenues of Addis Ababa LRT since its onset in March 2020.

#### 4.7.2.4. Intra-regional cargo and passenger movement by rail

Information availed from the ERC plainly shows a complete blackout in the number of passengers travelled and revenue obtained from the cross regional service rendered on the Ethio-Djibouti railway line since the emergence of the Covid-19 pandemic in the country in March 2020.

Table 38: Intra regional passengers traveled and revenue obtained

Months	2018		2019		2020	
	Number of passengers	Revenue obtained (ETB)	Number of passengers	Revenue obtained (ETB)	Number of passengers	Revenue obtained (ETB)
March	8,675	2,600,591	9743	2,266,604	0	0
April	11,627	3,432,688	978	246,949	0	0
May	9,096	2,935,465	0	0	0	0
June	13,134	4,351,063	2,133	645,102	0	0
July	23,342	7,118,817	16,503	5,025,546	0	0
August	13,850	2,135,477	12,743	3,661,947	0	0
September	9,433	2,688,359	9,516	3,612,334	0	0
October	9,209	2,676,580	6,520	2,187,210	0	0

Source: ERC, 2021

As tabulated above, the Ethio-Djibouti railway passenger service significantly decreased due to Covid-19 restrictions. The passenger travel service has been halt in March 2020, and then after following the state of emergency declared in April 2020 which is not resumed so far. The ERC show a 90 percent decline in bookings in March 2020 alone. The corporation suspended passenger service on Addis-Djibouti routes and only kept the most essential lines running freight like medical supplies, fertilizer and wheat imports.

In contrast to the commuters wing, the effect of the pandemic on the cargo service has been positive. Both the volume of cargo and revenue obtained have witnessed a rise since the start of the pandemic in the country in March 2020.

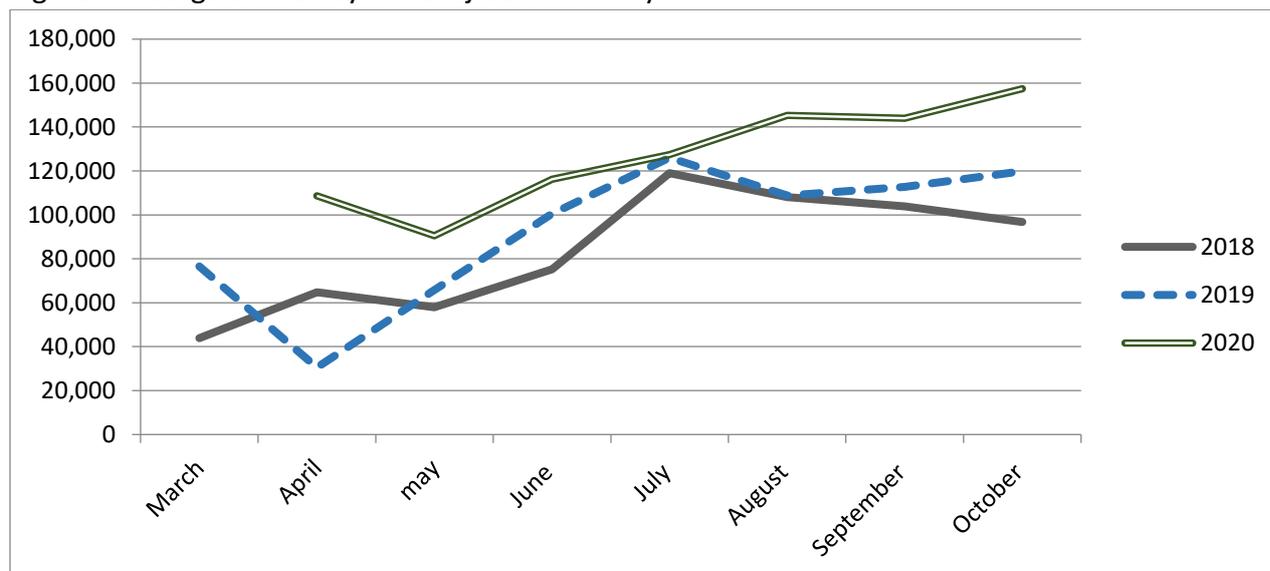
Table 39: Cargo carried and revenue obtained by ERC (2018 - 2020)

Months	2018		2019		2020		Percentage Comparison 2020 vs 2019	
	Cargo carried (Tons)	Revenue obtained (million ETB)	Cargo carried (Tons)	Revenue obtained (million ETB)	Cargo carried (Tons)	Revenue obtained (million ETB)	Cargo carried (Tons)	Revenue obtained
March	43,880	37.23	76,551	73.07	-	104.61		43%
April	64,740	52.61	30,512	28.04	108,680	94.17	256%	236%
May	57,952	44.16	65,806	56.72	90,502	71.97	38%	27%
June	75,300	56.56	100,493	82.93	116,272	97.58	16%	18%
July	119,015	91.87	126,032	110.43	127,425	104.33	1%	-6%
August	108,139	91.86	108,797	93.58	145,348	118.85	34%	27%
September	103,902	80.26	112,719	96.12	143,946	120.13	28%	25%
October	96,814	72.47	119,860	98.53	157,430	135.81	31%	38%

Source: ERC, 2021

A year-on-year comparison made between May and October 2019 and 2020 shows an average increment of both cargo volume and revenue obtained by 24% and 21%, respectively. The highest increment in cargo size hauled recorded was on April with a 256% rise compared to April 2019, and the heaviest amount carried was 157,430 tons immediately after the relieve of the restrictions in September 2020. The revenue from cargo also shows an increasing trend in the time of restriction. The only month showing a negative growth was the month of July (2020) as compared to the same month in 2019.

Figure 41: Cargo carried by Ethio-Djibouti Railway



Source: ERC, 2021

#### 4.7.2.5. Airline Passenger and Cargo Services

Aviation is one of the hardest hit economic sectors by the pandemic. The effect, however, is different in a sense that there is a confounding shock in the number of passengers travelled and a rise in the cargo volume.

With a total operating fleet of 130 aircraft and with more than 128 destinations, Ethiopian airlines has been recording an astounding average annual growth rate of 16% passenger travel and 15% cargo transport between 2014/15 and 2019/20. Nonetheless, the Covid-19 pandemic has caused the airliner to lose its number of passengers by nearly 60% in 2020/21 compared to figures in 2019/20. The pattern has been different when it comes to cargo haulage – a surge by 35% between 2019/20 and 2020/21. This greatly contributes to the resilience of the airliner in contrast to most other operators across the globe.

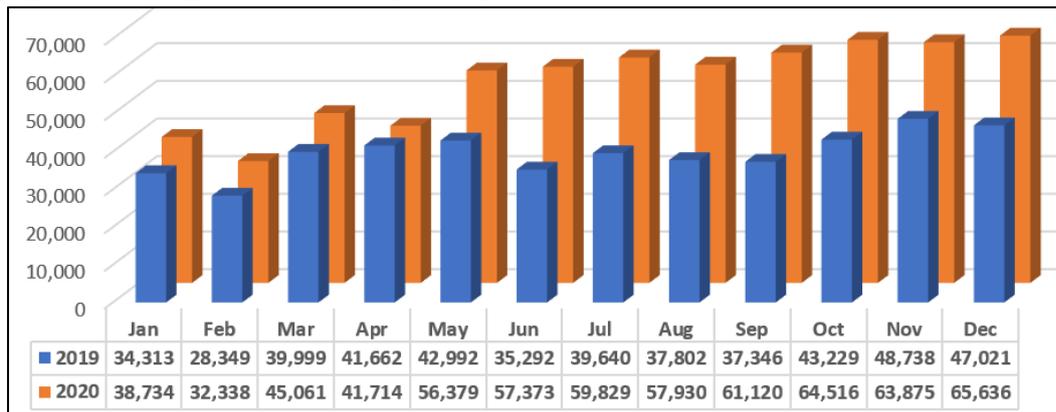
Table 40: Ethiopian Airlines in Figures

Description	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Aircraft	76	77	87	108	116	128	130
Destination	84	88	95	113	121	127	127
Passenger number	6,353,059	7,595,037	8,761,101	10,631,866	12,140,297	13,473,146	5,420,356
Cargo Tonnage	236,772	266,223	338,646	400,339	431,859	476,383	644,506
Revenue in Million USD	2,418	2,531	2,658	3,345	3,909	4,200	3,300

Source: Ethiopian Fact sheet monthly reports ([www.ethiopianairlines.com](http://www.ethiopianairlines.com))

A closer look at different statistical figures between 2019 and 2020 helps to analyze the effect of the pandemic on the operations of the airliner. As stated before, the cargo movement has increased by an average of 35% across the two periods. There is a clear increment in goods movement especially after the start of the pandemic in the country in March 2020. The highest cargo recorded after September 2020 which is just after the relive of the state of emergency. In general, 2020 shows the largest cargo movement as compared to the previous year 2019.

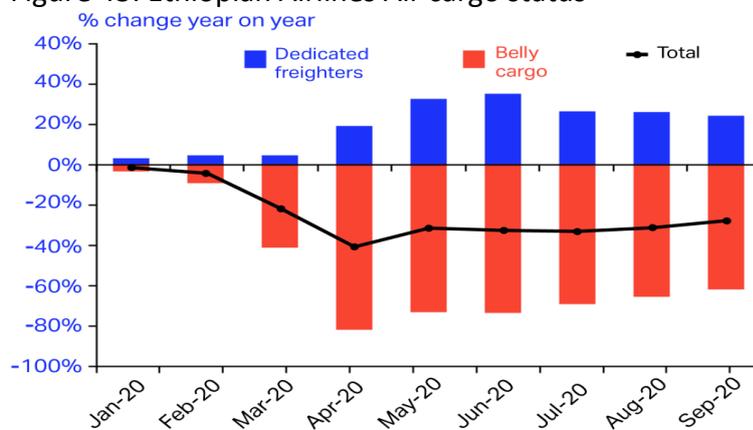
Figure 42: Cargo movement by Ethiopian Airlines



Source: EAL, 2021

Air cargo's story in 2020 differs from air travel's. Cargo volumes were slightly down but nowhere near as much as passenger numbers. At air cargo's low point in April, cargo ton kilometers (CTKs) flown were down around a quarter. And by September, air cargo volumes had risen to just 8% below the previous year's figures. Air cargo is, with few exceptions, not a vector for Covid-19. It remains, moreover, essential to sustaining global supply chains and to transporting medical equipment and pharmaceuticals (IATA Economics, 2021). The following graph depicts the Air Cargo status during the epidemic.

Figure 43: Ethiopian Airlines Air cargo status



Source: IATA Economics (using data from IATA Statistic Ethiopian Airlines two-year trend including the time during the pandemic).

Dissimilar to the cargo trend of most airliners, the passenger travel segment has been suffering substantially since the onset of the disease in December 2019 at Wuhan of China. Ethiopian airlines share this doom too. As per the Ethiopian carrier, the number of passengers travelled by the airline dropped by about 60% in 2020 from year 2019 due to the pandemic's effect. Aircraft movement for domestic and international passengers also dwindled by 41% and 35%, respectively in the period considered. International air travel particularly bashed hard compared to either domestic air travel or global air cargo. This is largely because governments across the globe imposing travel restrictions to prevent the import of Covid-19 from outside their national borders.

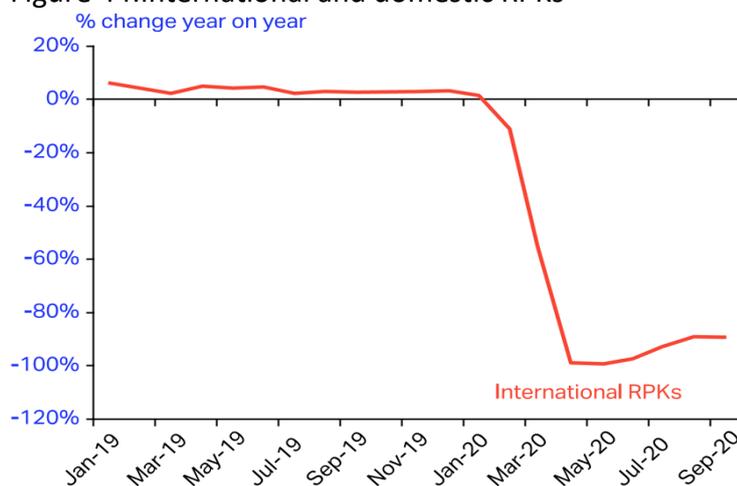
Table 41: Ethiopian Airline passenger number and AC movement

Description	2019	2020	Percentage
Passenger Number	13,473,146	5,420,356	-60%
AC Movement			
Domestic Passengers	38,598	22,618	-41%
International passengers	76,098	49,093	-35%

Source: EAL, 2021

According to IATA Economics (2021), international revenue passenger kilometers (RPKs) began falling in February. They collapsed in March and in April to a level 98% lower than in the previous year. The slow recovery of international air travel that followed has been tremendously discouraging for airline profits and global economic connections. By September, global RPKs were about 89 percent lower than a year ago.

Figure 44: International and domestic RPKs



Source: IATA Economics, using data from IATA Statistics

In the international situation, the domestic air travel has shown a more encouraging rise from its low point in April, which, at 87% less than the previous year, was not as severe as the low point for international air travel. By April, China's domestic air travel market—the world's second largest after the US's domestic market—had been recovering for two months, as

Covid-19 was brought under control and travel resumed earlier in that market than in other markets worldwide. But other domestic markets, too, have since April seen a return of air travel, which demonstrates that there is pent-up demand at least for leisure and visiting friends and relatives (VFR) travel.

There is a very wide divergence among different domestic air travel markets, there are very different results for air travel in the world's main domestic air transport markets. China's air travel market began its recovery early, having hit its low point in February, and by September was within 3% of its pre-crisis level, as China continued to keep Covid-19 cases low. Russia's domestic air travel market was fully recovered by late summer, as the normally substantial outflow of tourists did not occur; tourists were instead diverted to vacations at home. Australia's domestic air travel market, however, had barely improved by September, continuing to lag at 89% below the year before. Recovery in the world's largest domestic market for air travel, the United States, has also been disappointing, largely because air travel there has been hit by a second and third wave of Covid.

There is little doubt that the pandemic has had a significant impact on the worldwide aviation business, with Ethiopians being no exception. Despite this, the Ethiopians have demonstrated remarkable resilience, owing primarily to their superb cargo performance, despite the passenger market suffering greatly. With the global economy expected to recover from the pandemic's effects beginning in mid-2021, the country's aviation industry expects better results.

#### A synopsis of Covid-19 impact on the Ethiopian Aviation Industry

- A significant decrease in air travel with Ethiopian airline sales nearly stopping and cancellations with refunds being requested. By June 2020, airport traffic dropped by 90 percent.
- Ethiopian Airlines had been working at only 10% of its flight capacity as of July 2020. It incurred a USD one billion loss between January and mid-June 2020. The sector also experienced a 2.5 million decline in passenger traffic in the period.
- The airline has suspended flights to over 80 destinations and has sent some of its staff on leave and suspended non-essential staff as it tries to manage its cost.
- The airline has been taking advantage of its large fleet and destination networks to ferry cargo across the globe largely relating to medical aid items and some export cargo.

#### **4.7.2.6. Findings of the sample survey in the transport and logistics sectors**

##### **4.7.2.6.1. Financial and production impact**

As stated in the methodology part, the total sample size taken for the transport and logistics sector was 150, of which the majority (120) were from Addis Ababa and the rest from Adama, Bahirdar, Dire Dawa and Hawassa cities. We surveyed 36 container freight transporters, 29 passenger transporters, 26 inland freight transporters, 57 taxis and 1 tour and travel agent that renders transport service. The respondents were owner-managers (37%), managers (34%), employees (25%) and relatives (5%). Most (68%) have sole proprietorship (69%) and private limited company (21%) legal status.

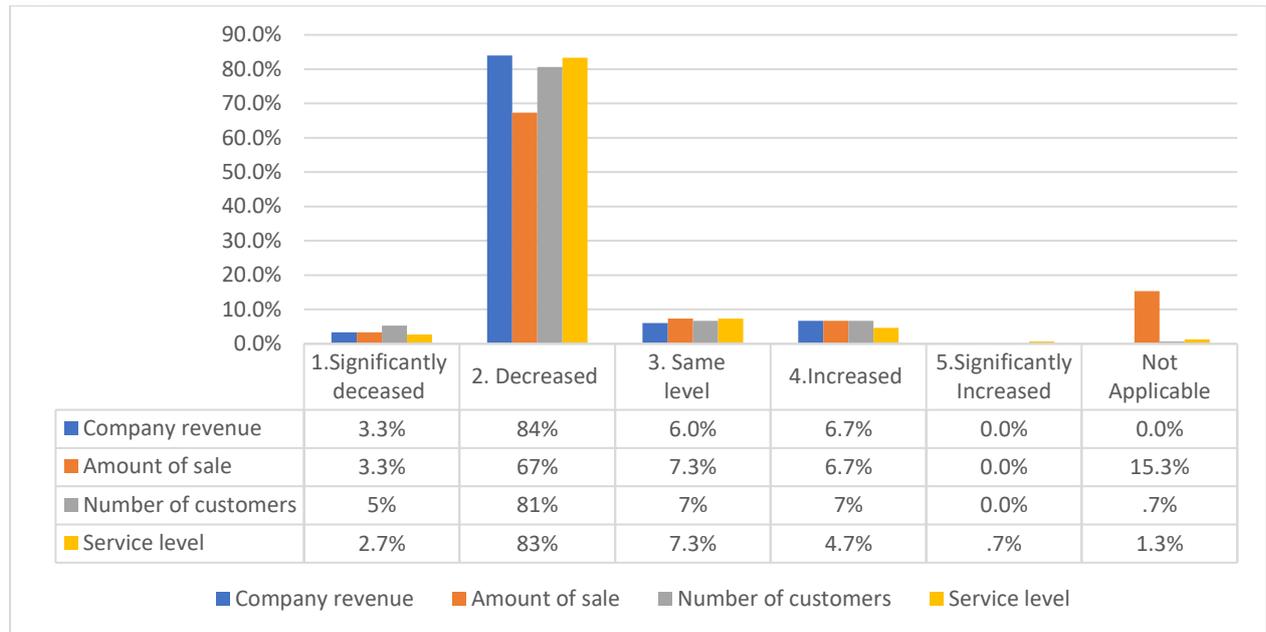
Because of the restriction on some activities, some sectors operations were affected heavily during the time of the outbreak. We found out that most of the respondent's haven't faced cashflow shortages (61%) with the remaining balance reporting the incidence of shortage (39%). Loans (45%), delay payments (14%) and other means (34%) are the leading coping mechanisms reported for managing cashflow shortages. In fact, the great majority reported that the pandemic has either 'very seriously affected' leading to serious difficulties in business operations and bankruptcy (58%) or 'greatly affected' with operations barely maintained (33%).

The Covid-19 pandemic not only impacts the movement and/or the current operations of businesses, but also influences one's expectations about the future operations of their business. In these connections, most have concerns with the future financial sustainability of their company as 53% stated 'somehow concerned' and 33% said 'very concerned'.

Revenue is directly related with the production level and service provision. During the early stages of the pandemic in the country and particularly during the state of emergency between April and September 2020, operations had been very slow in the transportation sector and public transports were obliged to carry passengers only half of their capacity. Service provision is based on the number of customers, and because of the partial lockdown the number of customers obviously encounters decline.

As shown in the chart beneath, although about 61% didn't stop operations because of the pandemic, most respondents declared drop in revenues (85%), sales (67%) and a number of customers (81%). This obviously brings financial stress to the company. Inadequate demand (76%), shortage of and high cost of inputs (62%) are identified as the top reasons for service reduction/loss among various responses given.

Figure 45: Status of sales and revenue in the Covid-19 era



Source: Sample Survey, 2021

As to whether they approached financial institutions for monetary assistance, only about 40% replied that they went to the institutions for loan assistance, with the majority (60%) haven't. Most (97%) sought for working capital. The response was favorable for 63% who approached (more than two-third went to the Commercial Bank of Ethiopia), and about 33% are on the waiting status for their loan application.

#### 4.7.2.6.2. Impact in Input supply and employment

As per the survey respondents, the lion's share encountered a rise in the cost of different operational categories. This is in contrast to the expectation. Because of the operational slow down during the pandemic and partial lockdowns, the need for different costs such as the material input and labor costs were supposed to decrease.

Yet, the survey result shows surge in different cost components notably during the partial lockdown of the pandemic. For most, their material input cost (87%), equipment cost (90%), labor cost (67%), and other operating costs (87%) increased or significantly increased. Several possible explanations might be recited for such incidences. As to the labor cost, for instance, it might be because most laborers who worked in the city centers went to the countryside because of the lockdown, and this resulted in a shortage of workforce and an increase in the cost of labor.

The productivity and operations of the logistics and transport sector has been impacted in several ways. In fact, 85% of the survey respondents in the sector indicated that their business has declined since the onset of the pandemic. The leading reflections by the survey

participants among the multiple responses on the way the pandemic affects their business include profit loss (42%), bankruptcy (43%), and drop in the number of customers (31%). Again among multiple responses, the top three challenges come across are drop in demand for the services (41%), business closure (41%), and drop in the number of customers (26%).

The social distancing measures have an expectantly significant impact on the transportation sector. The measures resulted in cutting the passenger number which in turn will have a significant impact on the passenger number and the ticket sales revenue. The survey findings show that the effect of social distancing has been largely moderate (45%) or minimum (20%) on the operations of the transport and logistics sectors. Only one third reported either a significant (16%) or complete/total (12%) effect on their activities and performances. As said before, this is in contrast to what was supposedly expected. Social distancing measures means there are lesser densities of people and hence drop in the number of customers resulting in revenue and sales losses.

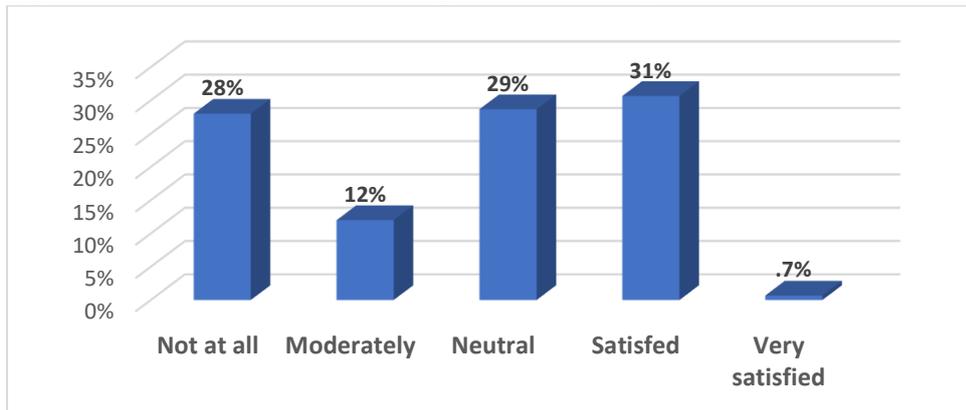
We also noted that those in the transport and logistics sector face serious disruptions with both domestic and international suppliers. As per the respondents, about 88% experienced disruptions and shortages with national suppliers with also 81% facing the same challenges with international suppliers. Total disruption of supply (70%) and supply shortages (19%) are the two top challenges identified facing the logistics operations and systems as reported by the respondents.

During the pandemic and partial lockdowns, several organizations laid off their employees due to business slowdown. We asked our survey participants in the logistics and transport sector if they released their employees. Most were found to retain their employees (57%), with the second majority saying they 'reduced slightly' (38%). Only few (5%) reduced their staff significantly. Also the preponderance (77%) faced no shortage of casual labor for their operations.

#### **4.7.2.6.3. Government Intervention/Policy/ Support Package**

Sectors and people usually require helping hands during crisis times like the current pandemic. Governments across the globe have been taking different support measures to rescue their businesses from the pandemic's impact. Coming to the survey respondents, about 63 percent disclosed they haven't got any form of support (be it financial or non-financial) from the government to lessen the pandemic's effects on their business since the Covid started. About 60% also said that they did not get any financial support during the outbreak, with the remaining balance claiming receipt of the support. Mixed results reflected as to the satisfaction level with the overall actions of the government to contain the virus as illustrated in the beneath chart.

Figure 46: Satisfaction level with government responses

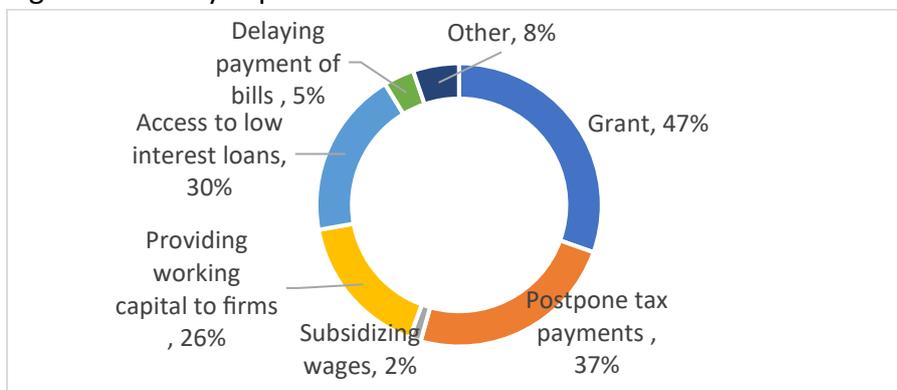


Source: Sample Survey

Of those who accessed support, the majority (68%) indicated that tax reduction as the leading assistance from the government. Other less significant supports include financial support, advertisement/marketing assistance and others.

The Covid-19 outbreak has an impact on the overall organizational management and strategic plan. In fact, companies employ different strategies and mechanisms to manage calamities during the times of crisis. We asked our survey participants about their own evaluations on their companies Covid-19 extent of crisis management. Most gauged the degree between 'average' (34%) and 'good' (58%). About 68% reflected that their crisis management measures enhanced transversal collaboration between faculties and departments 'to some extent'. This (collaboration) was 'very little' for 12% and 'not at all' for 13%. The Covid-19 pandemic's extent of disruption on the implementation of the company's strategic plan has been 'to some extent' for the two-third (66%) and 'not at all' for about 19%. The influence of the pandemic on affecting the collaboration level with authorities (local, national) has largely been either at the same level (51%) or positive i.e improved (19%). As to the policy responses expected from the government to help overcome the effects of the pandemic, most referred to financial related with direct grants/ financial assistance, debt postponement and access to low interest loan needs.

Figure 47: Policy expectations



Source: Sample Survey, 2021

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Despite all of the Covid-19's ups and downs, hope always shines through, even in the darkest of circumstances. The majority of survey respondents are optimistic that their company will recover from the pandemic's effects (49 percent). Roughly 23% are unsure about everything (neutral), and around 24% are deeply concerned, to the point where they are not completely confident in their company's recovery.

## CHAPTER FIVE: A SYNOPSIS ON KEY FINDINGS

### 5.1. An overview of major impacts

#### 5.1.1. Tourism and hospitality

The tourism and hospitality industry is one of the worst-hit economic sectors by the Covid-19 pandemic. Early projections show that the sector would gravely suffer owing to different measures taken to contain the virus's spread, which in one way or the other affects activities of the sector. Movement restrictions, lockdowns, visa issuance delays and quarantine requirements mean there would be less peoples' mobility from place to place, and thus shrink in the number of tourists and other customers. Hotel rooms would be empty, restaurants become vacant, tourist destinations become deserted and all along the tourism value chain would agonize due to the domino effect. The Ethiopian tourism industry suffers the pandemic's such sequels without exception. There are numerous evidences that hotels, restaurants, bars, barbers/saloons, taxis, and tourist sites are facing a complete loss of customers. Ethiopian Airlines, hotels, car rental companies and other tourism related businesses have experienced significant material losses and which they overcome the effect yet.

According to the hotel marketers association, the impact of Covid-19 in Addis Ababa at early periods of the pandemic in 2020 has seen 88% of hotels either full or partially closed and the market will take some time to recover. There is an estimated down to USD 35 million loss per month due to the effects of the pandemic. MOT sourced data shows the number of international visitors dropped from about 800,000 in 2019 to 600 thousand in 2020. The revenue obtained from the sector also slashed from 3.1 billion USD in 2019 to around 2 billion in 2020 which apparently indicates the negative impact of the pandemic. It is not surprising to witness that the sample survey respondents significantly ached in terms of service drops, slumped business grow, laid off more employees, encountered revenue and customers losses, faced financial constraints, and the like. The companies changed the way they operate to keep their employees safe while obeying to the nationwide state of emergency announcements. At the firm level, different strategies to cut costs and mitigate the cash shortage have been taken and the government has also supported the business through tax exemptions. But the hit is so hard to this sector, the Covid-19 impacts are so substantial and difficult to overcome in short period of time.

#### 5.1.2. Transport and Logistics

The Covid-19 pandemic has had an unprecedented impact on the logistics and transport networks that cover the trucking, air, rail and maritime industries across the globe including Ethiopia. Different nations have been taking assorted actions such as border closures, distance policies, quarantines and movement restrictions to contain the virus's spread. This directly affects the transport and logistics sector, a prime agent for the movement of goods and services unremittingly. Containment measures have been dramatically restricting the movement of goods and people which substantially affected the economy as a whole and

supply chains bringing in a diverse set of domino effects in almost all economic sectors and systems (Loske, 2020). Unreservedly, the pandemic has been affecting the activities and performances of the Ethiopian transport and logistics sector since its appearance.

The Ethiopian government in fact took different measures to minimize and prevent the impact of Covid-19 on the transportation and logistics sector especially during the five month state of emergency declared in April 2020. The economic effects of the pandemic has been largely mixed. The cargo section, be it on road, air or sea, performed well while passenger movement-related activities and businesses were deprived. Cargo shipped by sea increased by 14%, between 2019 and 2020. Addis Ababa LRT encountered a staggering 71% reduction/loss in the daily average number of passengers and revenues immediately after the onset of the pandemic in March 2020. A year-on-year comparison also shows a 45% and 46% drop in the number of passengers and revenues before and after of the advent. Intra-regional transport service rendered along the Addis Ababa-Djibouti route halted in March 2020 and never resumed since then. In contrast, the cargo volume transported using railways show a 24% rise bringing a revenue increment of 21% between October 2019 and 2020. As to the air transport service, the Covid-19 pandemic has caused Ethiopian Airlines to lose its number of passengers by nearly 60% in 2020/21 compared to figures in 2019/20. However, cargo haulage by the airliner surged by 35%. Ethiopian airline revenue fall from USD 4.2 billion in 2019 to USD 3.3 billion in 2020 Ethiopian fiscal year (The data shows records between July 2019 and July 2020).

Similar to other sectors, the operators in the transport and tourism sector encountered various effects of the pandemic. As learned from the sample survey, service contractions, revenue losses, business downturns, rise in costs, financial shortages, serious disruptions with both domestic and international suppliers, and other challenges were faced by many in the sector, and especially during the five months state of emergency since April 2020. The lion's share reported that help didn't arrive from the government to rescue the sector and most seek financial related support from the state. Despite all the challenges brought about by the pandemic, they hope and are confident that their business would recover from the messes encountered.

All in all, the Covid-19 pandemic resulted in a positive outcome on the cargo haulage with the opposite effect on the passengers travel. With its domino effect, other economic segments such the tourism, manufacturing and service sectors unquestionably impacted severely because their service depends on goods and particularly people's movement. A restriction on goods and people's movement means a loss in customers and revenues in the others sectors such as the tourism and hospitality. With an understanding of such chain reactions and proper disaster prevention preparedness, it can be possible to minimize the adverse effects of such incidences in the future.

### 5.1.3. Manufacturing

Similar to some sectors that hit hard by the pandemic such as tourism, the manufacturing sector has been severely hit. Early predictions show that more than 30% of Ethiopia's micro, small and medium enterprises (MSMEs) could be in trouble due to the effects of the pandemic (UN, 2020). The sector has been predicted to be severely impacted owing to the high drop in global demand and other factors (JCCE, 2020a). Early assessments depict that there has also been a disruption of supply chains in Ethiopia, owing largely to the closure of manufacturing industries and transport bans on services connecting the capital with regions during the early periods of the pandemic in the country (UN, 2020).

The sample survey (conducted for this study) results indicate that about 80 percent of the manufacturing firms experienced a decline in sales and number of customers compared to the same period of the previous year. Close to 84 percent of manufacturing firms have been experiencing a decline in revenue. Firms in Ethiopia are responding to the crisis through the adoption of digital technologies and different government policy responses. Only about 30 percent of the survey respondents have been satisfied with government responses to the pandemic. Finally, the survey result suggests policy response options to focus on the following areas: access to low-interest loans and grants, provision of working capital to firms, and postponement of tax payments.

Certainly the manufacturing sector has been suffering a lot due to the effects of the pandemic. It is expectantly a double hit to the Ethiopian manufacturing wing as it has already been struggling with a multitude of production/productivity challenges in the pre-Covid era. The sector's growth has been so sluggish despite massive efforts executed to uplift in the past decades.

### 5.1.4. Agriculture

Agriculture sector has been less impacted, in contrast to what was predicted at the onset of the pandemic in the country. Several early projections predicted a huge drops in production, deepened food security crisis, significant income loss to the small holder farm households and thus severed rural poverty situation, hefty rural unemployment, price hikes in agri-products, loss of foreign earnings and the like. Few foresaw less impact of the pandemic on the agriculture compared to other sectors.

Although there was no specific and direct package measures to protect operations of the masses in the agriculture from the pandemic's effect, the Ethiopian government has prepared and enforced Covid-19 action plan in five key areas for the agriculture sector.

In contrast to early gloomy projections, the agriculture sector generally performed well in the Covid era except slacks in few areas. The total area covered with crops and total production

show a 2.7% and 5.4% rise, respectively since last year (2019/20). Only drops recorded in production of some crops such as sugar cane and oil seeds. The size of land irrigated also declined by about 14% mainly due to investment issues in the sector. Export of flowers show no sign of drop and no decline in livestock population observed since the outset of the pandemic. Yield associated with animal products such as egg and milk registered growth except honey production. We haven't as such noticed major change in food utilization pattern since the emergence of the pandemic. Agricultural input distribution and utilization has been generally smooth.

Although most of the agriculturalist we surveyed expressed the pandemic's ill effects on their businesses in terms of such as causing cashflow shortages, production and revenue losses, input supply shortages, employment crisis, high input cost etc, they equally didn't stopped operations due to the pandemic and they are confident that their business would recover from the pandemic's effect.

In general, statistical figures show positive results, antipodal to what were feared at the outset. We argue that we could have seen a huge food security crisis due to production losses, export earnings from agricultural produces severed, agro-processing firms closed or significantly reduce capacities, etc, had there been early pessimistic predictions of the pandemic's effects happened.

## 5.2. Support Packages

The Ethiopian government has been providing support in the form of profit tax, pension contribution and employee income tax exemption to share the burden imposed due to the effects of Covid-19. Other supports such as up to two months office rent relief and employee salary forfeit were also some of the supports obtained during crisis. But these measures taken by the Government of Ethiopia were not enough to cover the severe loss and measures such as direct government subsidies, provision of favorable loans, and tax deferment would help the companies recover well in short period of time possible.

The Council of Ministers has put forward measures to curb the impact of Covid-19 on the private sector. These measures planned to be carried out by different government institutions are aimed at revitalizing the private sector which is hit hard by the impact the virus. By March 2020, the national income tax, value added tax (VAT) and excise tax debt were recorded at 78 billion birr. Tax debt cancellation and extension of payment period have been among the measures implemented in accordance with the tax debt cancellation and amnesty to minimize the impact of Covid-19 on tax-payers directive 64/2012 drafted by the Ministry of Finance and carried out by the Ministry of Revenues. This directive covers those engaged in service, manufacturing, export, finance, and construction sectors. In line with this, tax debt incurred

until 2014 was waived. This includes, returning the property of economically active enterprises that were held as leverage for tax debt during the period before 2014.

Meanwhile, for tax debt incurred from 2015 – 2018, enterprises are only expected to pay the principal while the interest and penalty are waived. However, for this to be effective, enterprises are required to pay 25% of the principal tax debt and pay the 75% within a year. Should the enterprises manage to pay the principal within 30 days, 10% of the principal would be reduced along with the waiving of the interest and penalty. To prevent the spread of coronavirus and because of shortage of finances, many enterprises have closed off their physical place of work and made their employees stay at home.

Due to the financial pressure this puts on the enterprises, they are usually forced to lay off employees. Taking the socio-economic crisis this would bring about into consideration, the government has taken some measures. Employee income tax could be up to 35% depending on the gross income and 7% pension contribution. Hence, to prevent employee layoffs by enterprises, the government took cost sharing measures by waiving the employee income tax and pension contribution for 4 months in 2020. Small and Medium Enterprises (SMEs) are especially vulnerable to the socio-economic consequences of the coronavirus and have been facing various problems.

And due to a shortage of finances, micro-finance institutions are unable to support these enterprises. Consequently, the government passed the decision for the Development Bank of Ethiopia (DBE) to provide loans for micro-finance institutions, cooperatives, and SMEs so they can keep their operations running throughout the pandemic. The National Bank of Ethiopia (NBE) has also provided a 15-billion-birr loan to banks, with the intention of extending bank loan payback period for enterprises.

Other measures focus on providing support to exporters who have been impacted by order cancellations and loss of foreign buyers due to the pandemic. Following a report by the Ethiopian Investment Commission proving that the exporters are unable to send their products overseas, manufacturer exporters were able to sell their products locally. Those engaged in manufacturing sectors that were highly impacted by the pandemic were also encouraged and allowed to engage in other types of manufacturing, especially in the production of Personal Protective Equipment (PPEs) and medical equipment for local and foreign market.

The following table summarizes the key measures taken (at times proposed) by the GOE and other actors in combatting the effect of the pandemic along with the extent of execution thus far.

Table 42: Policy measures taken in Ethiopia to contain COVID-19 transmission<sup>24</sup>

Date (year 2020)	Policy measure	Execution level
Mar-13	First confirmed Covid-19 case in Ethiopia	Not Applicable
Mar-16	Authorities closed schools across the country and banned all public gatherings, including sports	Done
Mar-20	The Ethiopian government announced that its state-carrier would suspend flights to 80 destinations	Done
Mar-23	The Prime Minister suggested that the aid package announced in early March would be increased to Birr 5 billion (US\$154 million)	Not Applicable
	A measure that would put all arriving passengers into a 14-day mandatory quarantine introduced	Done
	The country closed its land borders to nearly all human traffic	Done
Mar-27	Ethiopia's National Bank plans to inject Birr 15 billion (\$456 million) as liquidity for private banks	It was not possible to verify exactly how much of the approved size utilized
Mar-30	Regional authorities ban public transportation which was later relaxed	Done
Mar-31	Ethiopia has postponed its much-anticipated parliamentary election scheduled for August to a time when the pandemic is no more a health threat	National election postponed, later run in June 2021
Apr-02	To help Ethiopia mitigate the effects of COVID-19, the World Bank Group approves \$82.6 million (\$41.3 million grant and \$41.3 million credit) from the International Development Association	Active
Apr-03	The Prime Minister's office announced a COVID-19 Multi-Sectoral National Emergency Response Plan (NERP), which will require US\$1.64 billion in funding	"
Apr-05	Ethiopia confirms the first COVID-19-related local death	Not Applicable
Apr-08	Ethiopia's Prime Minister declared a nationwide state-of-emergency that gives it the mandate to take measures to further curb the transmission of the virus	Done and ended in September 2020
	Ethiopia's cabinet approved a loan of \$54.9 million from the Africa Center for Disease Control and Prevention	It was not possible to verify exactly how much of the approved size utilized
Apr-13	Authorities implement door-to-door screening in Addis Ababa, followed by cities in other regional states	Largely executed
Apr-30	The IMF's executive board approves US\$411 million in emergency assistance to Ethiopia to address the COVID-19 pandemic	It was not possible to verify exactly how much of the approved size utilized

<sup>24</sup> For further elaborated policy measures, see World Bank (2021). *Eighth Ethiopia Economic Update: Ensuring resilient recovery from COVID-19*. pp 44-46.

Date (year 2020)	Policy measure	Execution level
May-02	To stimulate the economy, the government introduced tax waivers, cost-sharing measures, and so forth, reaching Birr 78 billion that is hoped to benefit 80% of businesses affected by COVID-19	Done
Jul-03	African Development Fund approves a grant of 120 million Units of Account (UA) or US\$165 million to Ethiopia to support the NEPR	It was not possible to verify exactly how much of the approved size utilized

Source: Based on (Aragie et al., 2021)

### 5.3. Business communities policy expectation

Covid-19 global pandemic has been disrupting the socio-economic fabric of mankind in recent period since its emergence in Wuhan of China in December 2019. Its effect in Ethiopia is part of the global crisis manifested by the virus.

We elaborated in previous sections the major disruptions the pandemic brings to various economic spheres in Ethiopia and the government's responses to mitigate its adverse impacts. The actions, however, were not adequate as facts and figures show. We learnt from the survey that most (about two-third) haven't received any support from the government and only a quarter (24%) felt satisfied with the government response to contain the effects of the pandemic, and the remaining 76% with reservations. This is a clear indicator that robust measures need to be taken to embolden the commenced interventions.

As explicitly voiced in the sample survey, focus group discussions and in-depth interviews conducted, the business community expects an assortment of policy responses from the government. We specifically found out from the sample survey that financial intervention related measures is a top priority for the businesses communities. This, among others, is manifested in terms of tax payment postponement (43%), access to low interest loans (37%), financial assistance/grant (30%), provision of working capital to firms (24%), delaying bill payments (15%) and wage subsidy (9%). The following table presents details on the policy responses expected from the four sectors covered by the study.

Table 43: Policy response expectations from the government

Policy expectations	Sector				Total
	Agriculture	Logistics/Transport	Manufacturing	Tourism/Hospitality	
Grant	28	70	10	13	121
Count					
% within Sector	74%	47%	11%	10%	
Postpone tax payments	21	55	11	86	173
Count					
% within Sector	55%	37%	13%	69%	
Subsidizing wages	10	3	1	20	34
Count					
% within Sector	26%	2%	1%	16%	
Providing working capital to firms	24	38	23	12	97
Count					
% within Sector	63%	26%	26%	10%	

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Policy expectations		Sector				Total	
		Agriculture	Logistics/ Transport	Manufacturing	Tourism/ Hospitality		
Access to low interest loans	Count	24	44	57	21	146	
	% within Sector	63%	30%	66%	17%		
Delaying payment of bills	Count	12	8	3	35	58	
	% within Sector	32%	5%	3%	28%		
Other	Count	0	12	4	6	22	
	% within Sector	0.0%	8%	5%	5%		
Total		Count	38	148	87	125	398

Source: The sample survey, 2021

#### 5.4. Key experiences drawn: The Pentad Lessons

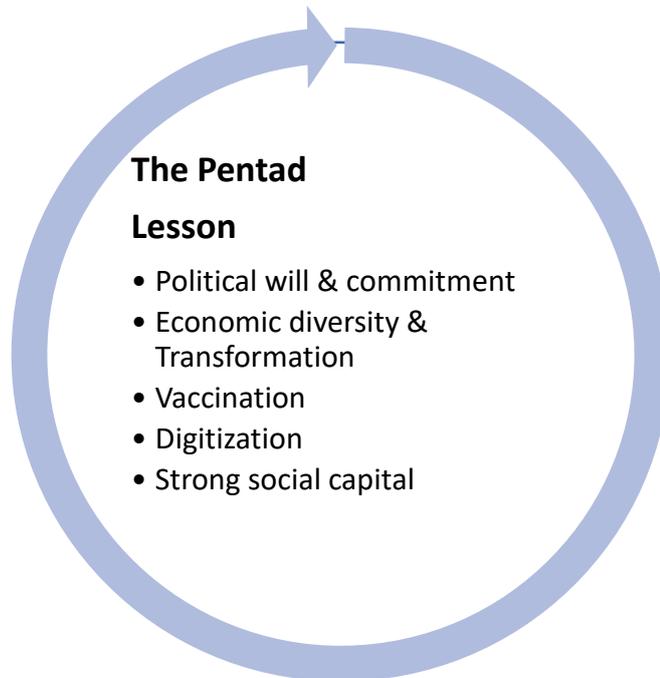
The Covid-19 pandemic has caused raking miseries to the world and the human race. The extent of agony might vary across geographies, sectors, economies, cultures and so forth. And there are always lessons to learn while passing through such rages. Although several excerpts can be grabbed from what has been witnessed thus far, all might not be equally important. Based on our findings and observations, we summarized the key lessons learned in five brackets (labeled as the pentad lessons) under social, economic and political gamut as elaborated hereunder. Additional picks also recounted at the end.

- **Strong political will and commitment help mitigate effects of the pandemic.** Various measures including the partial lockdown and economic stimulus packages taken by the Government of Ethiopia helped daily lives to continue and the economy to survive the pandemic's storm. The spread of the virus remained low compared to the catastrophe recorded elsewhere. In short, strong political will and commitment are found crucial in fighting such pandemics. Resilience is critical in times of uncertainty so leadership really matters to pass through such times
- **Vaccines, Vaccines, Vaccines.** Pandemics such as Covid-19 disrupt everything. They indiscriminately affect economies, social systems, political setups, etc. The economic health of a nation goes side by side with societal health and in this regard **vaccines are** considered essential tools to effectively fightback pandemics and quickly bring life to the pre-pandemic era.
- **Strengthen social capital and relations.** The impact of social organizations and relations in passing through the turbulent times of Covid-19 has been significant in the country. Social capital and social organizations have significant importance in the life of all Ethiopians (Angaw, 2021). Social organizations in the country commonly share the principles of social solidarity and members' participation to mutually benefit by sharing socioeconomic burdens (ibid). These organizations played a paramount contribution to averse the socioeconomic crises of the pandemic in Ethiopia and it were interactive with the government policy responses. In a country like Ethiopia where social security and emergency response scheme (recovery and stimulus package) for natural and manmade disasters is scanty, the role social relations and

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organizations play is immeasurable. Indeed, Ethiopia is a poor country with no luxury to put aside an enormous stimulus package similar to what rich countries did since the onset of the pandemic. With limited resources, Ethiopia’s practice of exploiting social organizations, relations and capital can be considered a success. No doubt strengthening such a social form would help mitigate similar catastrophes.

Figure 48: The Pentad Lessons



- **Digitization/digital transformation.** Despite the fact that Ethiopia’s digital penetration is still at its infancy, experiences elsewhere witness how digitization remarkably helped in navigating through the pandemic’s pick times, notably in the year 2020. The pandemic introduced a new urgency to what had been a gradual switchover to platforms like Zoom for remote communications. People and businesses have been using online platforms more often than before and this trend is expected to sustain even after the pandemic is over. As also emphasized in this study’s FGD conducted at Addis Ababa, a pandemic like this needs technological apparatus and, the government should concentrate on developing a digital economy with an ultimate aim of building a technology friendly business community. This can be materialized, as also suggested by Arkebe Okubay (PhD) in the UNU-WIDER webinar (May 15, 2021), through such as “developing basic research competence, improving educational system, building technological capability, advancing regulatory capability” and other necessary channels.

- **Economic diversification, transformation and inward looking.** One big takeaway from the Covid-19 incidence is that those nations with narrow economic base (such as oil dependent countries), were in severe economic agony due to the pandemic than those with diversified economic base. Economic diversification (transformation added in the long run) therefore helps to attenuate the devastating effects of future similar pandemics by reducing the vulnerability of the economy to shocks. Boosting production capacity is equally important in periods of pandemics. Especially for the country like Ethiopia with an abject poverty, narrow economic base and agrarian featured agriculture, ensuring food security should be a forefront priority. Ethiopia needs to boost its domestic production capacity of food and essential consumer goods to better cope with such pandemics (Alemyehu Geda, 2021). Another inward looking strategy could be strengthening cooperation with regional neighbors in addition to enhancing local production capacity. African countries launched African free trade area in January 2021. This would create an immense opportunity to tap resources nearby via regional supply chains and integration. We learned from the Covid-19 pandemic that global value chain significantly disrupted and the world witnessing weak resilience. This has been justified by results of our sample survey.
  
- **Extra picks may include:**
  - **Change challenges to opportunities:** Some businesses looked and grabbed unique opportunities out of the Covid-19 pandemic. Ethiopian airlines, the biggest airline in Africa, converted a considerable number of its passenger planes into cargo planes and intensified its cargo haulage that helped the carrier survive the pandemic's pick era in 2020 without a rescue package. Hawassa industrial park has commenced manufacturing of PPE as part of survival strategy. Some beverage manufacturers also diverted their alcoholic beverage production into sanitizers. All these leads tell that challenges could be converted into opportunities through innovations and smart thinking.
  
  - **Tailored strategy required:** We learnt from the Covid-19 pandemics that all economic sectors have not been affected equally. Our findings show that the tourism sector has had the worst time with Covid and yet struggling to recover while manufacturing and transport/logistics sector slowly recovering. Agriculture has been largely unaffected except few segments. Therefore, any support package and mitigation measures aspired need to be tailored which consider the very facts on ground.

## CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

### 6.1. Conclusion

Our world has been hit by several pandemics since time immemorial. Archives show that there have been four pandemics in the past 130 years in the globe (Maital & Barzani, 2020). Covid-19 is a recent pandemic phenomena that originated from Wuhan of China in December 2019. Since its emergence, it ached more than 200 million people, took millions of life, made hundreds of thousands jobless, disrupted movements, crippled economies and so forth. Its crisis is yet far from over. Ethiopia registered its first case on March 13, 2020 and since then lots of incidents happened.

Initiated and commissioned by the Ethiopian Chamber of Commerce and Sectoral Association (ECCSA) and TradeMark East Africa (TEMA), this study has been conducted in view of understanding the major challenges triggered by the Covid-19 pandemic on manufacturing, logistics, agriculture and tourism sectors so as to provide concrete recommendations on measures to be taken by the Government of Ethiopia in lessening the ravages. Pertinent nationwide data gathered and analyzed including 400 samples on the business community from across five cities of the country (Addis Ababa, Adama, Bahirdar, Dire Dawa and Hawassa).

The study findings show that the agriculture sector is less impacted compared to others. Mixed outcomes manifest for the logistics and transport sectors. The pandemic has had a positive effect on the cargo hauling division while the passenger traffic wing suffered considerably. Airline, sea and rail line cargo movements show an increase while the number of passengers travelled slacked in the Covid era. Road freight transport follows a similar pattern. Visible impacts on all sectors observed during the five months state of emergency declared in April 2020 by GOE to limit the virus's spread in the country. Different indicators show that the tourism/hospitality sector has been severely tormented with the pandemic's grave effects than any other segment of economy. We learned from the sample survey, focus group discussions and key informant interviews the grievous impacts of the pandemic on the business community. Production/service and revenue levels greatly slashed as asserted by 77% of the sample survey respondents, business growth declined (86% of the sample survey interviewees), a number of customers dropped significantly and many aftermaths encountered due to the effects of the pandemic. Government support has been largely considered inadequate with various policy responses expected as reflected by the business community.

Government responses to the pandemic and the deep-rooted social relations in the country substantially helped mitigate the virus. The economy however still struggles to recover from the pandemic's effect. The Ethiopian economy has been vulnerable to shocks such as Covid-

19, climate changes, desert locust infestation, and war in 2019, 2020, and 2021. On top of this, Ethiopia has conducted a national election in 2021 and spent millions of dollars. Relatedly the government officially announced that nearly 100 billion birr spent for 8 months of the war in Tigray. Obviously, these shocks have been putting pressure on the national economy in general and the private sector in particular. This makes it difficult to clearly single out the effect of the Covid-19 pandemic on the economy. In this regard, we share Geda's (Alemyehu Geda, 2021) perspective concerning the extent of Covid-19's influence on the Ethiopian economy. The country's economy has been already troubled (notable macroeconomic imbalances and precarious fiscal and balance of payment, and hence foreign exchange problem situations) due to different other factors prior to the emergence of the pandemic owing to partly the structural factors and partly because of macroeconomic mismanagement sustained for more than two decades (Alemyehu Geda, 2021). The pandemic has only added fuel to the already deteriorating macro-economic situation of the country. Merchandise export has been deadlocked under USD 3 billion with import exceeding export three to five-fold for more than a decade; Value of Birr has been significantly depreciated in recent years with no impact on raising exports but with aggravating the worrying inflation problem; the ever widening gap between gross domestic saving and investment with several macro-economic implications including high indebtedness (reached 55.6% of GDP by 2019/2020) and many more. With the government predicting about 30 million people to become food insecure due to the pandemic's effect in 2019/20, on top of the already macro-economic turbulences aggravated with the intensified conflict in the country (especially in Tigray, Amhara and Afar regions), measuring the pandemic's real effect is elusive.

In sum, no crisis lasts forever. History shows that every economic crisis has an end. In modern world history, the 2008 financial crisis was the worst economic disaster since the Great Depression of 1929. The causes of the crisis in 2008 were the deregulation of financial derivatives. The financial crisis of 2008–2009 influenced industries in many countries (Gajdzik & Wolniak, 2021). To this end, immediate remedial policy action and coordination are required sooner or later in mitigating the impact of the pandemic. Hence, in the subsequent table, specific recommendations are presented framed across the target sectors, possible impact areas, the likely responsible actors and expected results as well as with implementation time span.

## 6.2. Recommendations

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
<b>M</b> anufacturing	<b>On employment</b>	-Manufacturers should put in place urgent and contingent safety measures including instituting sanitation rules in the workplace for their employees and should decide which functions can be carried out remotely	-Manufacturers/Private investors, Employees, Ministry of Health, Ethiopian Public Health Institute	-New cases can be significantly decreased.	Short-term
		- Firms may need to outsource some corporate functions (e.g., moving information technology (IT) to the cloud or shifting internal non-core operating functions to contractors).	- Manufacturers/Private investors, Ministry of Innovation and Technology, Information technology companies	-Such changes can reduce operating costs and eliminate maintenance capital.	Medium-term

<sup>25</sup>The phrase "**short term**" refers to the time between the announcement of the first Covid-19 case and the end of the registration of additional cases. Its main goal is to prevent new cases from occurring and maintain the firm's operation. The phrase "**medium - term**" refers to the time between when Covid cases reached their peak and when zero new cases are registered. Its main aim is to strengthen firms coping mechanisms and rescue firms from collapse. Whereas, **long-term** measures refer to the overall firm actions to mitigate a crisis like the Covid-19 pandemic and cover the time after the Covid 19 pandemic extinction. In a nutshell, both the medium and short-term measures are inherently necessary to fulfill the long-term measures. On top of this, the medium and long-term periods can be categorized and called recovery and post-recovery periods, respectively, whereas, the short-term period mainly includes measures taken as a response to the pandemic. Relatedly, however, that both the responses and recovery measures ought to be employed simultaneously as new cases kept registering and no one can be sure when it ends.

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		-Focus and fund allocations for research and development (R and D)	-Firm owners, Investors, Manufacturers, Associations, Universities, Research Institutes (ex: EDRI), Chamber of Commerce, and GOE (Ministry of Industry, Ministry of Innovation and Technology)	-A crisis like the Covid-19 pandemic will be easily mitigated and possible to avoid unprecedented negative consequences ahead	Long-term
		-Encourage manufacturing projects with the largest impact on job creation	-GoE (mainly Ethiopian Investment Commission/ EIC, Ministry of Industry, Ministry of Labor and Skills), Regional Investment Offices, Chamber of Commerce	-Job opportunities created	Long-term
	<b>On Inputs supply</b>	-Update best practices as the situation evolve and assist suppliers in implementing the practices. This requires increasing transparency in the supply chain through daily self-reporting with all critical suppliers	- GoE (mainly Ethiopian Input Development Enterprise, Ministry of Industry, Ministry of Transport and Logistics and EIC), Chamber of commerce Manufacturers/Private investors	-Supply chain disruption will be avoided	Medium-term
		-Transfer of new knowledge throughout the supply chain	-Manufacturers, GoE (mainly Ministry of Industry, Ministry of Innovation and Technology, Ministry of	-Firms become more resilient	Long term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
			Labour and Skills and EIC), Academia, Chamber of commerce, Research Institutes		
		-Facilitate performance of the logistics sector for faster delivery of inputs and manufactured goods	-GoE (Ministry of Transport and Logistics)	-Unnecessary contact could be avoided	Short term
		-Reduce raw material importation related taxes (such as import tariffs)	-GoE (Ministry of Finance, Ministry of Industry, and EIC)	-Firms able to compensate for the loss occurring due to Covid-19	Short term/Medium-term
	<b>On Finance</b>	- Governments ought to introduce debt relief measures and offer businesses deferral programs	-GOE (Ministry of Revenues, Ministry of Trade and Regional Integration, National Bank of Ethiopia), Financial institutions, donors	-Immediate cash-flow challenges will be solved	Medium-term /Long-term
		- Cutting costs and seeking debt relief and compensation	-Manufacturers, Financial Institutions, Donors, GOE (Ministry of Revenues, National Bank of Ethiopia)	-Debt related problems solved	Long term
		-Create prioritized access to foreign currency	GOE (Ministry of Industry, Ministry of Trade and Regional Integration, National Bank of Ethiopia), Financial Institutions	-Foreign currency stress solved	Short/Medium-term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
	<b>On production</b>	-The disruption of trade and its impact on international production networks and global value chains need to be evaluated	-GoE (Mainly Ministry of Trade and Regional Integration, EIC, Ministry of Industry), Manufacturers	-Production will not be hampered by the lack of intermediate supplies.	Medium-term /Long-term
		-Remodel/Repurpose factories towards producing items necessary for containing the spread of the pandemic	- Chamber of Commerce, Academia, Manufacturers, GOE (mainly Ministry of Industry, Ministry of Health, Ethiopian Public Health Institute)		Short/Medium-term
		Encourage import substitution via such as strengthen input supply linkages with domestic firms	-GoE (mainly Ministry of Industry, Ministry of planning and development, Ministry of Innovation and Technology), Manufacturers, Chamber of Commerce		Long term
<b>Agriculture</b>	<b>On employment</b>	- Inclusive job creation such as off-farm activities	-GoE (Ministry of Agriculture and regional counterparts, Ministry of Planning and Development, Ministry of Labour and Skills), Agriculture product producers	-Alternative jobs created	Short term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		- Effectively shutting out the possibility of seasonal labor from other places	-GoE (Ministry of Labour and Skills, Ministry of Agriculture and regional counterparts, and EIC), Regional Governments, respective government offices	-Pressure coming from additional labor can be decreased	Long term
	<b>On inputs</b>	- Mobilize domestic input sources	-GoE (Ministry of Agriculture and regional counterparts, Agricultural Transformation Agency, Ministry of planning and development), Farmers/producers, Regional Government respective offices, NGOs (such as FAO)	-Input sources maintained	Short term
		-Mobilize input sources from regional, and global sources that can be utilized to support input gaps	-GoE (Ministry of Industry, Ministry of Agriculture and regional counterparts, Ministry of planning and development), Regional Government respective offices	-Additional input sources can be created	Medium/Long term
	<b>On Finance</b>	-Direct transfers to the most affected such as price subsidies on key consumption and intermediate commodities	-GoE (Ministry of Finance, Ministry of Industry, Ministry of Agriculture)	- Maintaining the financial deficit	Medium-term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		-Design business support packages such as tax holidays	-GoE (Ministry of Finance, Ministry of planning and development), Chamber of commerce, Academia	-Debt related to tax can be mitigated	-Short to medium term
		-Diversify off-farm activities for job creation	-GoE (Ministry of Finance, Ministry of Industry, Ministry of Agriculture and regional counterparts) and Regional governments respective offices	-Additional jobs created	Long term
	<b>On Production</b>	- A quick rebooting of domestic supply as well as restoring it	-Agriculture producers and - GoE(Ministry of Finance, Ministry of Industry, Minister of Agriculture and regional counterparts) and regional governments respective offices	-Continue domestic production supply	Short-term measure
		-Reshaping the functioning of global value chains	-GoE (Ministry of Labour and Skills, Ministry of Transport and Logistics, and EIC) Chamber of commerce	-Global supply chain can be maintained	Long term
		- Internalizing production and establishing new supplier networks	- GoE Ministry of Agriculture, Minister of Planning and development) Producers and regional government respective offices	-Supplier network maintained and additional network created	Long term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		-Encourage new investment projects that have the potential to boost and maintain production	-GoE (Ministry of Labour and Skills, EIC), Chamber of commerce	-Production will not be disrupted	Long term
		-Encourage urban agriculture practices in urban areas for food security	- GoE (Ministry of Agriculture, Ministry of planning and development), Urban farmers		Short-term measure
		-Introduce SafetyNet program for the poor and vulnerable in the agriculture sector	- GoE (Ministry of Agriculture, Ministry of planning and development)	-Support package for vulnerable groups in place	Short-term measure
		-Mobilize input sources from regional, and global sources that can be utilized to support input gaps	GoE (Ministry of Agriculture, Ministry of Trade and Regional Integration, Ministry of Transport and Logistics), Respective regional government offices	-Additional input sources created	Long term
		- Encourage agricultural investments with restitution of supply chains functionality	- GoE (EIC, Ministry of Agriculture, Agricultural Transformation Agency, Ministry of planning and development)	-Additional jobs can be created and the existing jobs available can be maintained	Long term
		-Internalizing production and establishing new supplier networks, considering multiple supply channels	- GoE (Ministry of Agriculture, Ministry of Transport and Logistics) and respective regional government offices		Long term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
<b>T</b> ourism	<b>On employment</b>	-Alternative work arrangements, including short-term leave, telecommuting, and cost-sharing through partial salary adjustments need to be installed	-GoE (Ministry of Tourism, Ministry of Innovation and Technology), Hospitality industry actors/owners (Food and Beverage, Travel and Tourism, Lodging and Recreation), Chamber of commerce	-Layoffs mitigated	Short term
		-A partnership with the private sector to provide affordable internet access	-Ethio telecom, Ministry of Innovation and Technology, Chamber of Commerce, the Business community	-Alternative work arrangements and communication can be created	Medium-term
		-Regulations could be introduced to prevent large-scale layoffs	-GoE (Ministry of Tourism, Ministry of Labour and Skills)	-Layoffs decreased and additional employment opportunities can be created	Long-term
	<b>On Services</b>	-Implementing all national and global Covid protocols	-GoE (Ministry of Tourism, Ministry of planning and development), Hospitality industry (those actors in Food and Beverage, Travel and Tourism, Lodging and Recreation)	-Tourist flow can be maintained	Short-term
	<b>On Finance</b>	- Public funding schemes to facilitate investment in the tourism sector	-GoE (EIC, Ministry of planning and development, Ministry of Finance, Ministry	-New finance means and additional tourism investment created	Medium/long-term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
			of Tourism, Ministry of Culture and Sport)		
		-Debt relief on the sector	-GoE (Ministry of Finance, Ministry of Revenues, Ministry of Tourism, Ministry of Culture and Sport), Financial Institutions including NBE and Commercial Banks	-Debt gap can be narrowed	Long term
	<b>On Revenue</b>	- Other means of doing business ought to be encouraged, for example, by improving their web presence, advertising via social media, enhancing customer service functions via phone and online, and engaging in e-commerce.	- GoE (Ministry of Tourism, Ministry of Labour and Skills), Hospitality industry (those actors in Food and Beverage, Travel and Tourism, Lodging and Recreation), Chamber of commerce	- Hospitality industry actors (Food and Beverage, Travel and Tourism, Lodging and Recreation) will be incentivized	Medium-term
		Tax holidays need to be installed	- GoE (Ministry of Finance, Ministry of Revenues, Ministry of planning and development)	-The sector becomes more resilient	Long term
		-Adopt Public-Private Partnership (PPP) business model as a new strategy to promote the tourism and hospitality sector to realize its potential and move to the next level.	GoE (Ministry of Finance, Ministry of planning and development) and chamber of commerce	-PPP platform in place	Long term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
<b>Logistics</b>	<b>On employment</b>	-Introduce new protocols on social distancing at warehouses, disinfecting work areas, or providing protective gears	-GoE (Ministry of Health)	-Additional cases can be controlled while the sector operating	Short term
		-Giving staff unlimited unpaid time off	-GoE (Ministry of Transport and Logistics)	-Layoff can be controlled	Medium-term
		-Gain good-quality and affordable ICT connectivity	-GoE (Ministry of Innovation and Technology, Ministry of Transport and Logistics)	-Global operation can be maintained	Long term
	<b>On supply chain</b>	-Employ e-commerce as consumers opt for online shopping of essential goods and services	- GoE (Ministry of Innovation and Technology and Ministry of Transport and Logistics)	-Operation can be maintained	Long term
		-Create additional Services and production nodes	- GoE (Ministry of Transport and Logistics)	-Services can be maintained	Long erm
		-Place additional warehousing capacity or dry ports near demand centers to shorten the time to get goods to market.	- GoE (Ministry of Transport and Logistics)	-The shortening of supply chains	Long term
	<b>On finance</b>	-Support packages installed	- GoE (Ministry of Finance and Ministry of Transport and Logistics)	-Financial constrained can be controlled	Long term
	<b>On logistic service</b>	- Firms outsourcing their logistics functions to third-party logistics services providers, especially those with integrated, end-to-end solutions capabilities	- GoE (Ministry of Transport and Logistics) - Maritime Authority	-Logistics operation maintained and sustained	Short term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		- Investments in technology, such as internet cloud computing, automation, and data analytics	- GoE (Ministry of Innovation and Technology and Ministry of Transport and Logistics)	-Logistics/transport service facilitated	Short/medium term
		-Employ robotics, drones, and autonomous vehicles	- GoE (Ministry of Innovation and Technology and Ministry of Transport and Logistics)	-Logistics sector can be modernized so that the detrimental impact of a pandemic like Covid-19 pandemics would be mitigated	Long term
		-Support digital industry supply chain by facilitating customs and logistical processes (including classifying network equipment as essential infrastructure).	- GoE (Ministry of Innovation and Technology and Ministry of Transport and Logistics)	-The logistic sector has become digitized	Long term
	<b>On transport service</b>	-Working on existing and new multimodal transport routes	- GoE (Ministry of Transport and Logistics)	-An efficient and steady flow of goods and services ensured	Long term
		-For air: ensure access to digital services end to end of the process	- GoE (Ministry of Transport and Logistics, Ethiopian Airlines, Ethiopian Civil Aviation Authority)	- Operation maintained	Short term
		-For land: Strengthen communication and the transport user ought to respect Covid-19 pandemic protocols such as working with social distancing	- GoE (Ministry Of Transport And Logistics)	-Additional cases and be controlled while operation maintained	Short term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		- Employ financial packages support for transport operators, as well as mothballing arrangements for fleets	- GoE (Ministry of Finance, Ministry of Transport and Logistics)	-Financial sustainability	Short term
		-Emergency support for temporarily laid-off workers	- GoE (Ministry of Finance, Ministry of Labour and Skills, Ministry of Transport and Logistics)	-Temporary lay-off can be mitigated	Short term
		-For sea: global Covid-19 pandemic protocols need to be employed	- GoE (Ministry of Transport and Logistics, Ethiopian Maritime Affairs Authority)	-Sea transport can be maintained	Short term
		-For rail; working with social distancing, and global Covid-19 pandemic protocols need to be followed	- GoE (Ministry of Transport and Logistics, Ethiopian Railway Corporation)	-Operation can be maintained and sustained	Short term
<b>Cross-Sectoral</b>	<b>On employment</b>	-Prepare contingency plans for the provision of critical workers under emergency circumstances -Implementing all national and global Covid protocols -Install alternative work arrangements, including short-term leave, telecommuting, and cost-sharing through partial salary adjustments where applicable -Introduce regulations to prevent large-scale layoffs	- GoE (Minister of Health, Ethiopian Public Health Institute, Ministry of Transport and Logistics, Ministry of Finance, Ministry of Labour and Skills Development)	-Negative Covid impacts on employment would be mitigated	Short-term/medium-term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		-Institute sanitation rules in the workplace, and assess mobility policies to encourage remote working, where possible and necessary.			
	<b>On production</b>	-Develop pandemic response protocols and roadmap for sectors - Transfer of new knowledge to the respective sectors along with their value chain system.	- GoE (EIC, Ministry of Transport and Logistics, Ministry of Finance, Ministry of Innovation and Technology, Ministry of Labour and Skills)	-Maintain firm production level	Medium- and long term
	<b>On inputs</b>	-Develop an information-sharing tool among key actors	GoE (Ministry of Industry, Ministry of Transport and Logistics, Ministry of Innovation and Technology, Ministry of Finance, Ministry of Labour and Skills Development and EIC)	-Timely information delivered	Medium-term
	<b>On finance</b>	-Focus and fund allocations for Research and Development -Extend the support packages such as tax reductions and exemptions, delay tax payments, loan repayment delays delivered to businesses since the Covid-19 impacts are long-lasting	- GoE (Ministry of Finance, Ministry of Revenue, NBE, and EIC), Financial Institutions, Research Institutes, Academia	-Share or cover part of financial loss	Medium- and long-term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		<ul style="list-style-type: none"> <li>-The government should cover /share parts of operational costs (such as utilities and advertisement expenses, delay land /working premise lease fees, etc) through direct and indirect means to support firms recover financially</li> <li>-Assist firms in adjusting their operations to cope with the effects of the pandemic through measures such as cost reductions, adept sales strategies, introducing new but innovative business lines, maximizing the digital operations and the like.</li> </ul>			
	<b>Overall</b>	<ul style="list-style-type: none"> <li>-Expand vaccinations</li> <li>-Build a strong diversified economic base that can resist shocks</li> <li>-Establishing crisis and emergency communications strategies for sectors</li> <li>-create 'Covid-bond' with the aim to produce income for the business communities and fill cash flow imbalances.</li> </ul>	<ul style="list-style-type: none"> <li>-GoE (respective ministerial organs including the Prime Minister Office), and regional governments, Ethio-telecom, Chamber of commerce, Donors, Academia, Media</li> </ul>	<ul style="list-style-type: none"> <li>-Additional cases decreased, the economy respond and recover from the pandemic before getting to late</li> </ul>	Short term, medium and long term

Sector	Possible Covid-19 impact	Possible remedy	Responsible organ/units	Expected results	Expected time-span <sup>25</sup>
		<ul style="list-style-type: none"> <li>-Knowledge exchange to share experiences among countries on the impact of Covid on sectors</li> <li>- Strengthen social organizations</li> <li>-Promote the development of digital and communication technologies</li> <li>-Professional support and guidance to sectors on the mechanisms to handle such crisis times</li> <li>-Promote the business community to work hard via taking the advantage of experiences working and surviving in the era of the Covid-19 pandemic i.e. working while preventing the spread of the virus</li> <li>-Emplace effective communication systems and strategies to mitigate and contain the likely impact of similar pandemics through such as public awareness creation and education campaigns.</li> </ul>			

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## ANNEXES

### Annex 1: Survey Questionnaire

#### A Questionnaire for “An assessment on trade data tracking and analysis with particular emphasis on the impact of the Covid-19 pandemic on selected sectors”

Background: as you may know, Ethiopian Chamber of Commerce and Sectoral Associations (ECCSA) is a membership based organization, established as an autonomous, nongovernmental, and non-political, and non-profit organization to act on behalf of its members. As part of its mandate, ECCSA in collaboration with TMEA conducts research in different business related areas to effectively represent the interests and views of the business community.

Accordingly, the general purpose of this questionnaire is to gather information that would help gauge the impact of Covid-19 pandemic on selected economic sectors (tourism, manufacturing, trade, agriculture and transport) with the intent of making policy recommendations. We therefore kindly request you to look at the following questions and respond accordingly in a truthful way. The information you are providing will be kept confidential.

Many thanks in advance for taking your time to respond this questionnaire.

	Description	Response
<b>I</b>	<b>GENERAL</b>	
1.1	Name of the respondent	
1.2	Position of the respondent	1) Owner Manager 2) Manager (different from owner) 3) Employee 4) Spouse/child/relative of owner 5) Other
1.3	Sex of the respondent	1) Female 2) Male
1.4	Business Address:	Sub city _____ Woreda _____ House no. _____
1.5	Enterprise Name:	_____
1.6	Sector:	1) Manufacturing 2) Tourism 3) Wholesale and retail trade 4) Transport 5) Hospitality industry 6) Import 7) Export 9) Other _____
1.7	Specific activity /sub sector	
1.8	Year of the establishment Ethi. Calender (E.C.)	
1.9	Legal form of enterprise	1. Sole proprietorship 2. Private limited company 3. Share company 4. Other _____
1.10	Firm Origin	1. Domestic 2. Foreign
1.11	Capital in Ethi. Birr (ETB)	Start-up _____ Current _____
1.12	Number of employees in the enterprise	Male _____ Female _____ Total _____
<b>II</b>	<b>Covid IMPACT</b>	
2.1	In what ways has your business been affected by the Covid-19 pandemic?	1) No impact 2) Increase demand / revenue 3) Profit loss 4) Bankruptcy 5) Domestic supply chain problems 6) Overseas supply chain problems 7) Reduced access to domestic customers 8) Reduced access to overseas customers 9) Reduced cash flow 10) Imbalance of income and expenditure 11) shortage of workforce 12) complete loss and shutdown 13) Other _____
2.2	If your company has been affected by Covid-	

	Description	Response
	19, to what extent does have the production /services of your firm altered?	1)Very high 2)High 3)Medium 4)Low 5)Very low
2.3	Select top challenges your company is facing after the advent of the Covid-19 pandemic (Select all that apply)	1) Business is closed 2) Lack of operational cash flow 3) Many workers cannot return to work 4) Decline in workers' production/productivity from working remotely 5) Reduction of opportunities to meet new customers 6) Drop in demand for products/services 7) Suppliers not meeting my needs 8) Challenges in logistics and shipping of products 9) Difficulties in accessing relevant technology in the context of Covid-19 10) Issues with changing business strategies and offering alternative products/services 11) No significant effect 12) Other (Please specify) _____
2.4	How do you label the pattern of growth of the enterprise after the Covid-19 pandemic?	1) Growing 2) No change 3) Declining 4)No comment
2.5	Have you stopped operations because of the current Covid -19 crisis?	1) No, operations are still running 2) Yes, temporarily stopped because of Covid-19 cases in our business 3) Yes, temporarily stopped because of reduced orders 4) Yes, temporarily stopped because of instructions by authorities 5)Yes, stopped operations previously but currently running again 6)Yes, permanently stopped 7) Other _____
2.6	What are the potential positive impacts of the pandemic in your view?	1) Promote the establishment of remote office work 2) Enhance information and digital construction of firms 3) Help to better realize firm's shortcomings and solve existing problems 4)No positive impact 5) Other
III	<b>FINANCIAL IMPLICATIONS</b>	
3.1.	Please indicate amount of company turnover in the last three years (ETB)	
	June 2019	
	June 2020	
	June 2021	
3.2	Has the impact of the pandemic jeopardising the financial sustainability of the company?	1)Yes, we are very concerned about the future of the institution 2)Yes, we are somewhat concerned about the future of the institution 3) We are indifferent 4)No, we are not really concerned for the future of the institution 5)Not at all, we are very confident for the future of the institution
3.3	In light of Covid-19, have you approached financial institutions for financial support?	1) Yes 2) No
3.4	If yes, which type of financial institution?	1) Commercial banks 2) Microfinance institutions

	Description	Response					
	[you can tick more than one]	3) Moneylenders 4) Credit or savings associations 5) State/public sector loans 6) State/public sector grant 7) Other (please specify) _____					
3.5	If there is a governmental scheme providing financial support for Covid-19 pandemic, has your institution benefited from this scheme?	1) Yes 2) No					
3.6	If No, why?						
3.7	If you approached financial institutions, what was the purpose of the Loan? [tick the most relevant]	1) Working capital 2) Factoring/Debt recovery delays 3) Asset financing: Machinery and technology 4) New product(s) 5) Other (please specify) _____					
3.8	If approached, what was the response from the financial institution/bank?	1) Favourable 2) Waiting 3) Rejected 4) Abandoned request					
3.9	Have you faced difficulties with the shortage of cash flow so far due to Covid-19	1)Yes 2) No					
3.10	How currently/planned to cope with the cash flow shortage? (multiple choice).	1) Funding from existing shareholders 2) Adding new shareholders 3) Loans 4)Delaying payment 5) Cutting pay and jobs 6) other (specify)					
3.12	Using a scale of 1 (significantly decreased) to 5 (significantly increased), answer the following questions for what's happening after the pandemic	(1) Significantly deceased	(2) Decreased	(3) Same level	(4) Increased	(5) Signific antly increas ed	Not applicable
	Production /service level						
	Company revenue						
	Amount of sale						
	Number of customers						
	Number of employees						
	Material/input cost						
	Equipment cost						
	Labor cost						

	Description	Response					
	Other operating costs						
	Market price						
IV	<b>SHORTAGE OF SUPPLIES/INPUT MATERIALS</b>						
4.1	Total value of input sourced locally (percent)						
4.2	Total value of input sourced abroad (percent)						
4.3	Do you face a shortage with national suppliers since the global outbreak of Covid-19?	1) Yes 2) No					
4.4	Do you face a shortage with international suppliers since the global outbreak of Covid-19?	1) Yes 2) No					
4.5	Can you please indicate challenges faced with logistics and shipping (including border challenges)?	1) Border closures and delays 2) Delays in freight transportation 3) Limited space or frequency of cargo shipments 4) Transport logistics costs have become too high 5) Supply shortages 6) Total disruption of supply 7) Satisfactory supply 8) Normal supply 6) Other (please specify) _____					
V	<b>IMPACT ON EMPLOYMENT</b>						
5.1	How has Covid-19 affected employment?	1) Salary has been reduced 2) Planning to lay off 3) Laid off 4) Been placed on furlough 5) Unaffected					
5.2	If you have you had to furlough staff due to Covid-19...	.....How many? 1)Under 5 2) 5 – 10 3) 11 – 20 4)21 – 30 5)Over 30 6)Unknown			....Interms of percentage 1)Reduce greatly (30–50%) 2) Reduce slightly (10–30%) 3)Remain basically the same 4) Increase slightly(10–30%) 5) Increase greatly(30–50%)		
5.3	How has social distancing measures impacted your current operation interms of such as company's turnover ?	1)No 2)Minimum 3)Moderate 4)Significant 4)Total					
5.4	How has the pandemic affected recruitment?	1)Increase in labour costs      2) Unable to find a suitable recruitment channel 3)Postponement or cancellation of the existing recruitment plan 4) Transition to online recruitment      5) other _____					
5.5	Has there been any unemployment due to Covid-19?	1) Yes 2) No					

	Description	Response					
5.6	Has a shortage of casual labour been observed due to Covid-19?	1) Yes 2) No					
VII	<b>On production</b>						
6.1	Production/Service capacity utilization (percent)	1) Before the advent of Covid -19 _____ 2) After Covid-19 _____					
6.2	Reason for production loss, if any	1)Labour access 2) Shortage of input 3)High cost of input 4) Inadequate demand 5) Increase in equipment and machine failures 6) Decline in working hours 7) Restriction placed by local law enforcement impact operations 8) other (specify) _____					
6.3	To what extent production and operations of your firm been affected by this pandemic?	1)Very serious impact, leading to serious difficulties in business operations and bankruptcy 2)Great impact, operations barely maintained 3) Small impact, some difficulties in business operations, but overall stability 4)No significant impact 5) Positive impact, providing new opportunities for development 6) Other /specify/					
VIII	<b>Coping mechanisms/How firms responded to the crisis</b>						
7.1	How would you evaluate the Covid-19 crisis management at your institution?	1) Very good 2) Good 3)Average 4) Insufficient 5) Largely insufficient					
7.2	Has the crisis management enhanced transversal collaboration (between faculties and departments)	1)To a great extent 2)To some extent 3)Very little 4) Not at all					
7.3.	Was communication among and between all staff effective during the pandemic?	1)To a great extent 2)To some extent 3)Very little 4) Not at all					
7.4	Has the Covid-19 pandemic disrupted the implementation of the strategic plan at your institution?	1)To a great extent 2)To some extent 3)Very little 4)Not at all 5) Our institution does not have a strategic plan					
7.5	Will the strategy of the institution be modified taking into account the effect of the pandemic?	1)To a great extent 2)To some extent 3)Very little 4) Not at all					
		(1) Significantly deceased	(2) Decreased	(3) Same level	(4) Increased	(5) Significantly increased	Not applicable
7.6	Has the collaboration with authorities changed due to the pandemic?						
	Collaboration with national authorities						
	Collaboration with foreign authorities						

Description		Response				
	Collaboration with local authorities					
7.7	How is your enterprise responding to the crisis?	1) Changes to production 2) Prioritizing safety and well-being of employees 3) Revising annual budget 4) Cutting costs 5) Adjustment of long-term business strategy 6) Investing in IT support for remote work 7) Finding alternative sources of supply 8) Financial support from government or other sources 9) Addressing labour shortages 10) Business as usual/no impacts 11) Closed/Planning to close if no improvement 12) Other _____				
viii	The expectations of firms/What impact of Covid-19 on your business do you expect?					
8.1		Increase	No change	Decrease (0-25%)	Decrease (0-50%)	Decrease (above50%)
	Profit/revenue					
	Debt					
	Tax					
	Subsidy					
	Workforce					
VIII	Measures and Policy options:					
9.1	Have you ever received any help so far from the government that help lessen economic impact of Covid-19?	1)Yes 2)No				
9.2	If the answer is 'yes' for the above question, type of support obtained	1) Grants / financial support 2) Promotion / Advertisement / Marketing 3) Rent reduction/freeze / Rate relief/freeze / Suspension of bid payments 4) Tax reduction 5) Utility subsidy 6) Salary subsidy 7) Access to the domestic market 8) Other /specify/ _____				
9.3	How satisfied are you by the Government responses?	1)Not at all 2)Moderately 3)Neutral 4)Satisfied 5)Very satisfied				
9.4	What policies do you expect the government will put in to place to help your firm overcome the difficulties?	1) Grant 2) Postpone tax payments 3) Subsidizing wages 4) Providing working capital to firms 5) Access to low interest loans 6) Delaying payment of bills 7) Other (please specify)				

	Description	Response
9.5	How confident are you that your business can recover on a scale of 1 to 5?	<ol style="list-style-type: none"> <li>1) Not at all</li> <li>2) Somehow</li> <li>3) Neutral</li> <li>4) Confident</li> <li>5) Yes definitely</li> </ol>
9.6	What future measures anticipated to address the economic impact?	<ol style="list-style-type: none"> <li>1) Not sure</li> <li>2) No measures</li> <li>3) Close permanently</li> <li>4) Adjusting operations to respond to Covid-19 Pandemic</li> <li>5) Contemplating closure</li> <li>6) Reductions in hours of operation/production</li> <li>7) Close business temporarily</li> <li>8) Loans or other credit options</li> <li>9) Other /specify/</li> </ol>
9.7	Have you identified any new business opportunities that might have been possible with the new situation?	<ol style="list-style-type: none"> <li>1) Yes 2)No</li> </ol>
9.8	What, do you see as the biggest potential opportunities for your company in the coming period?	<ol style="list-style-type: none"> <li>1) Operations improvements</li> <li>2) Growth in existing markets</li> <li>3) Changes in the business and/or regulatory environment</li> <li>4) Improved competitive position in core market(s)</li> <li>5) New business line(s)</li> <li>6) Mergers and acquisitions (M&amp;A)</li> <li>7) Expanded and/or new offerings</li> <li>8) Changes in the trade environment</li> <li>9) Expanded geographic footprint</li> <li>10) New market segment(s)</li> <li>11) Joint ventures and/or partnerships</li> <li>12) Shift to new technologies</li> <li>13) Online selling</li> <li>14) Conducting business remotely</li> <li>15) Don't know</li> <li>16) Other (please specify) _____</li> </ol>
9.9	Any other comments to add?	

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**We thank you very much for your time and valuable inputs!!**

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## Annex 2: Checklist for collecting information from different entities

| S.no. | Institutions/entities to be contacted                        | Issues to be raised/data to be collected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Ethiopian shipping and logistics services enterprises        | <ul style="list-style-type: none"> <li>• Data on freight transported by volume, revenue obtained by the service providers before and after the advent (last five years)</li> <li>• Data before and after the advent on               <ul style="list-style-type: none"> <li>• Freight volume transported</li> <li>• Revenue generated</li> <li>• Cost of service incurred</li> <li>• Capacity utilized (percent)</li> <li>• Employment level</li> <li>• Investment size</li> </ul> </li> <li>▪ Impact of the advent on the sector</li> <li>▪ Measures so far taken</li> <li>▪ Challenges encountered</li> <li>▪ Future plan</li> </ul> |
| 2     | Customs authority (Ethiopian Customs and Revenues Authority) | <ul style="list-style-type: none"> <li>• Import – export data last five years</li> <li>• Before and after:               <ul style="list-style-type: none"> <li>• Altered customs clearance procedures</li> <li>• Number of days it takes to clear before and after</li> </ul> </li> <li>▪ Impact of the advent on the sector</li> <li>▪ Measures so far taken</li> <li>▪ Challenges encountered, opportunities exist and lessons learnt</li> <li>▪ Future plan</li> <li>▪ Any other comments</li> </ul>                                                                                                                               |
| 3     | Ethiopian Investment Commission                              | <ul style="list-style-type: none"> <li>• Data on investment pattern and trends last five years (registered investments by number, sector, capital, employment level, implementation status, origin, region, etc)</li> <li>▪ Impact of the advent on the sector</li> <li>▪ Measures so far taken</li> <li>▪ Challenges encountered, opportunities exist and lessons learnt</li> <li>▪ Future plan</li> <li>▪ Any other comments</li> </ul>                                                                                                                                                                                              |
| 4     | AACCSA, ECCSA, EEA                                           | <ul style="list-style-type: none"> <li>• How do you generally assess impact of Covid-19 on the performance of the business community ?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| S.no. | Institutions/entities to be contacted | Issues to be raised/data to be collected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                       | <ul style="list-style-type: none"> <li>• What measures have been taken by associations and relevant authorities to mitigate the negative impact ?</li> <li>• How has been satisfactory the level of measure so far taken?</li> <li>• What measures do you think should be taken to improve performance of the business community?</li> <li>• What innovative business opportunities exist related to Covid-19 ?</li> <li>• What should be your role now and in the future in the fight against the pandemic?</li> <li>• Any other comments to add?</li> </ul> |
| 5     | Academicia                            | <ul style="list-style-type: none"> <li>▪ How do you generally assess impact of Covid-19 on the performance of the business community ?</li> <li>• What measures do you think are effective in containing the negative impact of Covid-19 on the economy? Which ones have not been fruitful and why?</li> <li>• In which research areas should universities an research institute focus to mitigate the economic challenges posed by the pandemic?</li> <li>• Any other comments to add?</li> </ul>                                                            |