POLICY DOCUMENT

MINISTRY OF ECONOMIC PLANNING AND DEVELOPMENT

QUANTIFYING THE ECONOMIC IMPACT OF RECENT CATASTROPHIC EVENTS IN ESWATINI (2020 – 2021)

PUBLISHED BY THE MACRO FORECASTING TEAM JUNE 2022

CATASTROPHIC EVENTS IN ESWATINI

2020 – 2021

MINISTRY OF ECONOMIC PLANNING AND DEVELOPMENT

IN PARTNERSHIP WITH THE CENTRAL BANK OF ESWATINI

JUNE 2022

CENTRAL BANK
OF ESWATINI
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THIS ANALYSIS REPORT REFLECT DEVELOPMENTS THAT OCCURRED IN 2020 – 2021, DATA QUANTIFIED SPAN FROM JANUARY 2014 UP TO JUNE 2022.

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List of Abbreviations

COVID-19	Coronavirus disease of 2019
CIT	Corporate Income Tax
CSO	Central Statistical Office
EHIES	Eswatini Household Income and Expenditure Survey
ERS	Eswatini Revenue Service
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HP-filter	Hodrick-Prescott Filter
ICT	Information Communication Technology
MFT	Macro Forecasting Team
MSMEs	Micro Small Medium Enterprises
NDMA	National Disaster Management Agency
PIT	Personal Income Tax
RSA	Republic of South Africa
TC	Tropical Cyclone
UNDP	United Nations Development Programmer
VAT	Value Added Tax
WHO	World Health Organization

EXECUTIVE SUMMARY

Eswatini is an open economy, classified as a lower middle-income country, with a gross domestic product (GDP) estimated at E72.598 billion (nominal) ~ US$4.909 billion in 2021. In terms of per capita income, this is equivalent to E62,565 ~ US$4,231 (for a population of 1.15 million). The country has a national poverty rate of 58.9 percent in 2017 and an unemployment rate of 33.3 percent in 2021. The country's income inequality, as measured by the Gini-coefficient, is estimated at 49.3 percent (EHIES, 2017).

The domestic economy has been experiencing major economic setbacks in the past including climatic shocks (i.e., drought), government cash-flow challenges and other external shocks. Most recently (2020 and 2021), the economy faced three major catastrophic events; (a) the COVID-19 Pandemic (ii) La Nina-induced Tropical Cyclone (TC) Eloise and (iii) Socio-Political unrests, which occurred sequentially and with lasting impacts for some sectors. These catastrophic events resulted in an (unquantifiable) loss of lives, destruction in infrastructure and loss of production output. This report provides an aggregated quantification of the potential losses on output as well as those relating to property and other infrastructure damages. It provides a one-stop summary analysis for all these events (some of which have been exclusively undertaken by other institutions).

The analysis reflects that the combined losses to output and infrastructure arising from the three catastrophic events (mentioned above) amounted to at least E6.208 billion over the two-year period with bulk of the losses (E4.378 billion) arising from the negative impact of COVID-19 across a number of sectors. The socio-political unrests, on the other hand, are estimated to have resulted in losses amounting to E1.553 billion (combining losses to infrastructure, vandalism, stock destruction and hours of production lost due to disruptions). Losses arising from the TC Eloise were estimated at E276.9 million, most of which were on road and water infrastructure as well as the agricultural output.

The losses in production relative to what could have been potentially achieved in the absence of the COVID-19 shock were significantly higher in the manufacturing sector due to global value-chain disruptions and weak external demand. Other sectors hit hard by the pandemic were tourism and transport, which were severely constrained by travel restrictions and banning of gatherings (considering social distancing and other COVID-19 containment measures). The analysis also notes that some sectors were impacted positively due to new ways of doing business in the advent of the COVID-19 pandemic. Notably, the ICT sector is estimated to have benefited by approximately E906.7 million, relative to what it would have been in the absence of the shock.

Losses arising from the TC Eloise weighed more negatively on the 'agriculture & forestry' subsector in terms of production losses with crop production being the severely hard-hit subsector. Production losses arising from the social riots were most felt in the 'wholesale & retail' and 'manufacturing' sectors. This was in terms of inventory looting as well as loss in operating hours.

The losses in production affected other macroeconomic variables, particularly, trade, credit extension and tax revenues. Exports potentially lost about E2.536 billion due to COVID-19 induced trade disruptions whilst imports potentially declined by E2.479 billion in 2020. On the monetary sector, lockdown restrictions due to COVID-19 affected credit extension to the private sector, as it fell by 8.6 percentage points relative to potential.

On the fiscal sector, a gap amounting to E824.6 million was recorded on domestic tax revenues at the back of COVID-19 induced disruptions. These losses can be disaggregated into two elements (i) losses due to output falling below potential and (ii) losses/gains from efficiency and other administrative reasons. In terms of losses to the output gap, losses amounted to E904.1 million while net gains on efficiency and administrative issues yielded about E79.7 million, as debt relief measures on taxpayers

resulted in a notable improvement in Value Added Tax (VAT) of approximately E199.7 million. On the contrary, this was associated with inefficiency losses on Corporate Income Tax (CIT) of E187.2 million. Net efficiency gains on Personal Income Tax (PIT) were marginal (relative to total PIT) at E67.2 million. Lower revenues also led to deliberate cutbacks in overall government spending despite pressures to fight the pandemic. Capital expenditure and expenditure' on 'goods and services' were potentially lower by E1.603 billion and E803.3 million, respectively.

The lower real GDP due to the catastrophic events, further worsened some social indicators mainly poverty and unemployment rates. National poverty is estimated to have regressed by 2.34 percentage points from the 58.9 percent that was reported in 2017 following declines in the growth rate in per capita income. Similarly, unemployment rates were recorded to have surged to historical high levels at 33.3 percent in 2021. Social sectors, such as education has also been put to disarray by the combination of COVID-19 and social unrests effects.

In response to the catastrophic events, the government implemented several policy measures in the fiscal and monetary space. Under fiscal, the response mechanisms included; targeting expenditures towards the health sector, creating fiscal space through the multilateral funding packages (IMF, World Bank and the AfDB), relief of small business entities through the stimulus packages of E90 million relief fund and E45 million COVID-19 relief fund as well as setting up the post COVID-19 recovery plan, amongst others. Additionally, government provided a stimulus of E1 billion for the reconstruction fund to support rebuilding of infrastructure damaged during the riots. The government further targeted vulnerable groups by providing food and cash-based transfers benefitting about 406,981 Emaswati in the two years. On preserving employment, the government released General Notice No. 22 of 2020 meant to mitigate against income losses. The Notice indicated that companies were to prioritize payment of wages &

salaries through suspending some obligatory contributions. Similarly, under monetary policy, the government through the Central Bank of Eswatini (CBE) implemented measures such as cutting the discount rate by 275 basis points, adjustment of liquidity and reserve requirement ratios for banks as well as state-backed loan guarantees and lending programmes.

These interventions were targeted at stimulating economic activity during the unprecedented events, as well as supporting small businesses and livelihoods to increase resilience against the catastrophes. Going forward, it is imperative to ensure that these measures are fully implemented and sustained in the short to medium term, to ensure full recovery of the domestic economy from the recent shocks as well as create resilience to handle future catastrophes.

CHAPTER 1. INTRODUCTION

The economy of Eswatini has experienced several catastrophic events over the past two years (2020 and 2021), which constrained economic activity and further amplified the economic woes for the domestic economy. These challenges have been in the form of a global health pandemic (Coronavirus disease), climate change-induced cyclone (Cyclone Eloise), and the unprecedented domestic socio-political unrests. As a result, there has been significant losses in economic output, which had devastating effects on the country's social outcomes (i.e., unemployment and poverty rates). Economic output, measured by gross domestic product (GDP), is defined as the total value of all goods and services produced by economic agents, in a country in a given period. It depicts how the various economic agents are performing in an economy and combining the different factors of production.

This policy report primarily unpacks the impact of these catastrophic events on economic output (across all sectors) and the associated (negative) social outcomes. The documentation of these impacts will provide a narrative on how the economy was affected and the response measures taken in addressing these shocks. It is important to assess and quantify the collective impact of these losses on economic output and livelihoods to enhance evidence-based-policy making, as some of these shocks are observed to be recurring.

CHAPTER 2. BACKGROUND INFORMATION ON THE CATASTROPHIC EVENTS IN ESWATINI

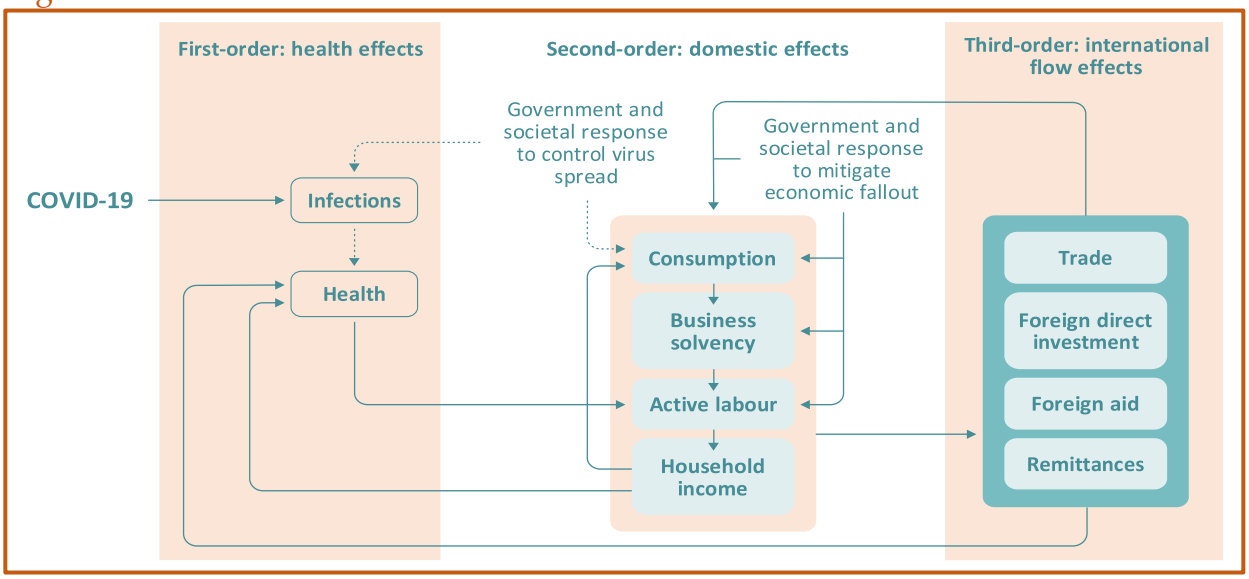
A catastrophic event, by definition, is a sudden or unanticipated occurrence that can either be natural, man-made or both. It is usually accompanied by major destruction or huge losses. In Eswatini, COVID-19, cyclone Eloise and the socio-political unrests, have been identified to be the main catastrophic events experienced over the past two years (2020 and 2021). These events are further discussed in the following:

2.1. COVID-19 Pandemic

The World Health Organization (WHO) first declared the Coronavirus disease (COVID-19) as a global health emergency in January 2020 and later a pandemic in March 2020. From a health perspective, there was a significant surge in the number of infections putting pressure on the health system. Efforts to 'flatten the curve' included lockdowns, travel restrictions and other containment measures.

These response measures resulted in a global economic downturn, with both immediate and long-term consequences for socio-economic development. In addition, there were disruptions in the flows of trade, foreign aid, remittances and foreign direct investment (FDI) affecting mainly the countries highly dependent on the flow of goods and finance across borders (i.e., trade, grants and remittances). The transmission of the COVID-19 effects is depicted in figure 1.

Figure 1: Transmission of COVID-19 Induced Effects



Source: UNDP Regional Bureau for Africa, 2021

Similarly, Eswatini being a small and open economy, the economic shocks imposed by the virus were transmitted to the domestic economy through global supply chain disruptions, and other domestic restrictions. The first case of the virus in Eswatini was discovered on the 14th of March 2020. Subsequently, on the 17th of March 2020, the country's authorities invoked section 29 of the Disaster Management Act of 2006 and declared the pandemic a national emergency. On the 27th of March 2020, the country moved into a partial lockdown with stringent measures on travel and gatherings, marking the first wave of the virus. While there were marginal threats to health outcomes (i.e., lower mortality), there were severe economic disruptions arising from the restrictions. Notably, some contact-facing activities such as 'Army Day', 'King's birthday celebration', 'Good Friday & Easter services', 'MTN Bushfire Festival', and others (which coincided with the early days of the COVID-19 outbreak), were immediately cancelled.

In addition, COVID-19 became a recurring issue with the second wave occurring between December 2020 and February 2021, third wave (July - September 2021) and the fourth wave taking place in December 2021. The second wave was epitomized by high mortality rate and severe loss of lives, whilst the latter waves saw the emergence of newer and highly infectious variants such as the Delta and Omicron. Figure 2 indicates the periods coinciding with the different waves experienced by the country.

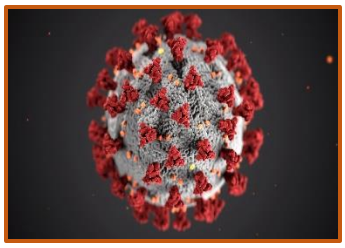
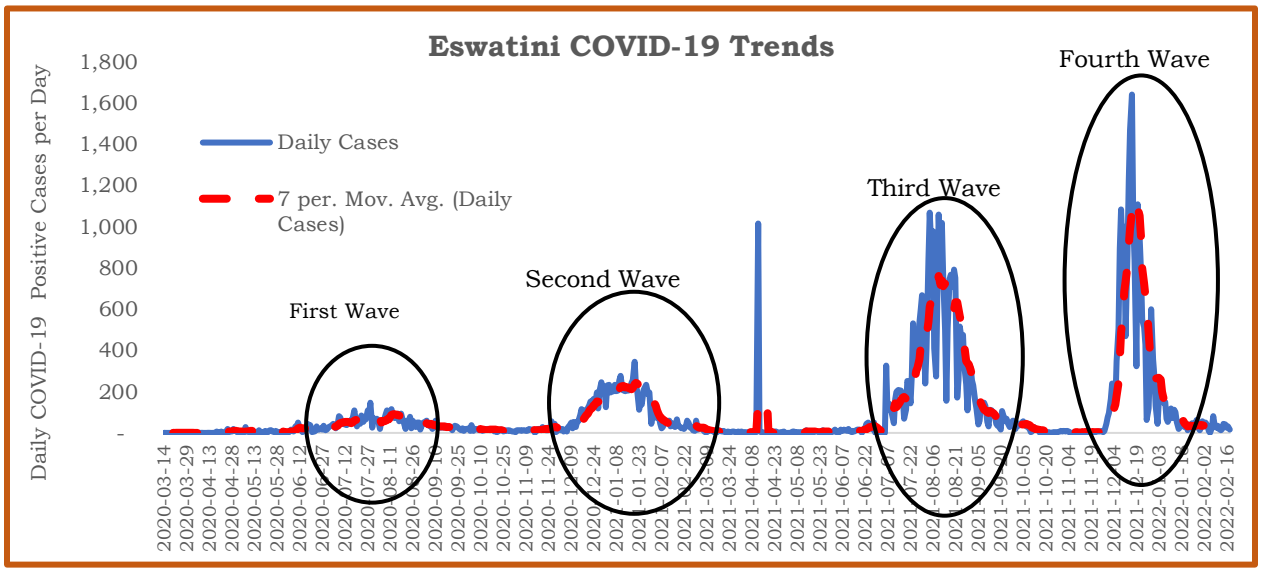


Figure 2: COVID-19 wave occurrences



Source: Ministry of Health, MFT calculations

2.2. Tropical Cyclone Eloise

In the year 2021, the Eswatini economy further experienced a natural climatic shock in the form of a cyclone in the period between the 14th and 25th of January. The tropical cyclone "Eloise" was a fifth catastrophic natural event in the recent past (i.e., 2001 – 2018), having been preceded by other events such as the El Nino-induced drought, Cyclone Dineo, Idai and other cyclones. The cyclone developed over the Southwest Indian Ocean basin on the 15th of January 2021, tracked south-westwards and made a landfall in

Mozambique approximately a week later (National Disaster Management Agency (NDMA), 2021).

The Northern part of Eswatini started receiving rains leading to localized flooding. Low-lying areas located in the Eastern part of the country were at high risk of flooding resulting in widespread displacement and the need for shelter support. According to the NDMA Rapid Assessment report of January 2021, Cyclone Eloise affected a total of 2,768 people, 777 houses, 53 bridges, and 774.3km road with about six casualties recorded. In monetary terms, the disruption costs were estimated at E192.8 million (NDMA, 2021).

2.3. Socio-Political Unrests

The country experienced episodes of unprecedented civil unrests in the form of riots, which occurred between the 26th of June to the 6th of July 2021 as well as on the 17th of October 2021. The riots were characterized by the destruction of physical assets, looting of stock & inventory and loss of lives. Additionally, there were disruptions in supply chains, particularly fuel supply and internet shutdown as well as constrained operational hours due to curfews. Sectors such as the wholesale & retail, manufacturing, transport & logistics and other services were amongst the hardest hit. During the October episode of riots there was a total shutdown in public transport services followed by abrupt closure of schools and disrupting operations of some businesses. In both instances, fatalities were recorded as well as the loss of livelihoods.

CHAPTER 3. IMPACT OF THE SHOCKS ON THE ECONOMY

3.1. Quantifying the impact of the shocks

This section provides an overview impact analysis of the catastrophic events on all the broad sectors of the economy (i.e., real, monetary, fiscal and external sectors). Selected indicators were assessed and represented the four sectors of the economy. In doing the assessment, the following indicators were used; gross domestic product (GDP), merchandise trade, domestic taxes, interest rates, and credit extension etc. In analyzing the impact of the shocks, different approaches (discussed below) were followed to ascertain how the economy would have performed in the absence of these calamities.

3.1.1. COVID-19 losses

In quantifying losses emanating from the COVID-19 pandemic, potential economic output was estimated to assess the deviations from actual data against what would have been in a normal year, i.e., the year 2019. The COVID-19 effects quantified in this report, are those linked with the onset of the shock in 2020, which imposed deviation from normality in the previous year, subjecting the economy to significant losses in output. This is despite observed COVID-19-related effects that remained in 2021 as well as subsequent years and continued to pose severe strain on the country's health system and an unquantified loss of lives.

According to Cotis (2020), in his research titled *'Estimates of potential output: benefits and pitfalls from a policy perspective'* observed that there are several methods to estimate potential output and a gap in an economy, and these include linear trend, univariate filters, multivariate filters and production function approaches, amongst others. For

purposes of this analysis, the Hodrick-Prescott (HP) filter is used[1]. Several authors have considered this approach in estimating the potential output (Balan & Vlad, 2018; Quast et.al, 2020; Grguric et.al, 2020). However, this approach has several limitations, as suggested by Hamilton (2017). In particular, he noted that the HP filter, results in spurious dynamics that are not found in the underlying data and further produces datasets with properties that differ between the middle and end of the sample (end of sample bias). To address the outer year bias, the analysis inferred to forecasts before the COVID-19 pandemic (MFT 2020 GDP forecasts). In addition, noting gaps in the data to be used and lesser observations being available for some indicators, the simple average was also applied to estimate the potential output for trade and credit extension. This methodology considered a simple average (i.e., Arithmetic mean) of five (5) years to estimate monthly average growth rates to be inferred in estimating potential monthly output.

Information Box 1: HP Filter and Business Interruptions Loss Methods

The HP Filter Method for estimating potential output and the Business Interruptions Loss.

This method filters the actual GDP data to extract the trend as an estimate of potential output. The paper uses this method to leverage on its simplicity, as it is a non-parametric approach with less stringent requirements on time series dataset properties. The approach uses the following specification:

Equation 2: Hodrick-Prescott (HP) Filter

$$\hat{f}_t^{HP} = \arg min_{f_t}\left\{\sum_{t=1}^{n}(x_t - f_t)^2 + \varphi\sum_{t=2}^{n}(\Delta^2 f_t)^2\right\}$$

And

$$(\hat{c}_t^{HP}) = \left(x_t - \hat{f}_t^{HP}\right)$$

Where:

x_t is the actual output realized,

f_t is the trend component, which is the series that shows the long-term growth,

c_t is the cyclical component or output gap,

φ is the smoothing parameter or adjustment factor[1].

Equation 2: Business Interruptions Loss

BIL = TQV

Where:

BIL- business interruption loss

T – Number of time units (Hrs or Days) operations are shut down

Q - quantity of good normally produced/ sold per unit of time used in T

V – Value of each unit of production

Notably, one major limitation to this approach was the difficulty in disentangling the intertwined occurrences of the shocks i.e., socio-political riots coinciding with the third wave of COVID-19 pandemic.

[1] See Information Box 1

3.1.2. Tropical Cyclone (TC) and Socio-Political Riots losses

Shocks emanating from the TC and socio-political riots occurred in 2021, following a non-normal year (i.e., 2020), which was clouded by the COVID-19 economic disruptions, and hence could not be quantified with reference to potential output losses. It can be noted that these two shocks were deemed to have caused business interruptions (BI) coinciding with the periods of occurrence (i.e., 1 week for TC- January and 3 weeks for the socio-political unrests- June/July, October). Business interruptions loss focuses[2] on the number of days/hours lost in operations/production.

Notably, one major limitation to this approach was the difficulty in disentangling the intertwined occurrences of the shocks i.e., socio-political riots coinciding with the third wave of COVID-19 pandemic.

[2] See information box 1.

Table 1: Methodological Summary

Event	Method	Variables	Notes
COVID-19	Hodrick Prescott Filter	• GDP • Productive Sectors • Domestic absorption • Income & Consumption Taxes	• Other indicators inferred with GDP output loss. • Employment • Poverty
	Arithmetic Mean - 3- & 5-years' growth rates (Y/y growth rates) on monthly data	• Trade • Total Credit • Fuel tax	
Cyclone Eloise	Business Interruption (BI) loss **[BIL = TQV]**	• GDP • Productive sectors	• Loss in-terms of inventory damaged. • Damage in infrastructure taken directly from NDMA. • Uses loss in days to estimate potential output lost due to riots
Socio-political Unrest			

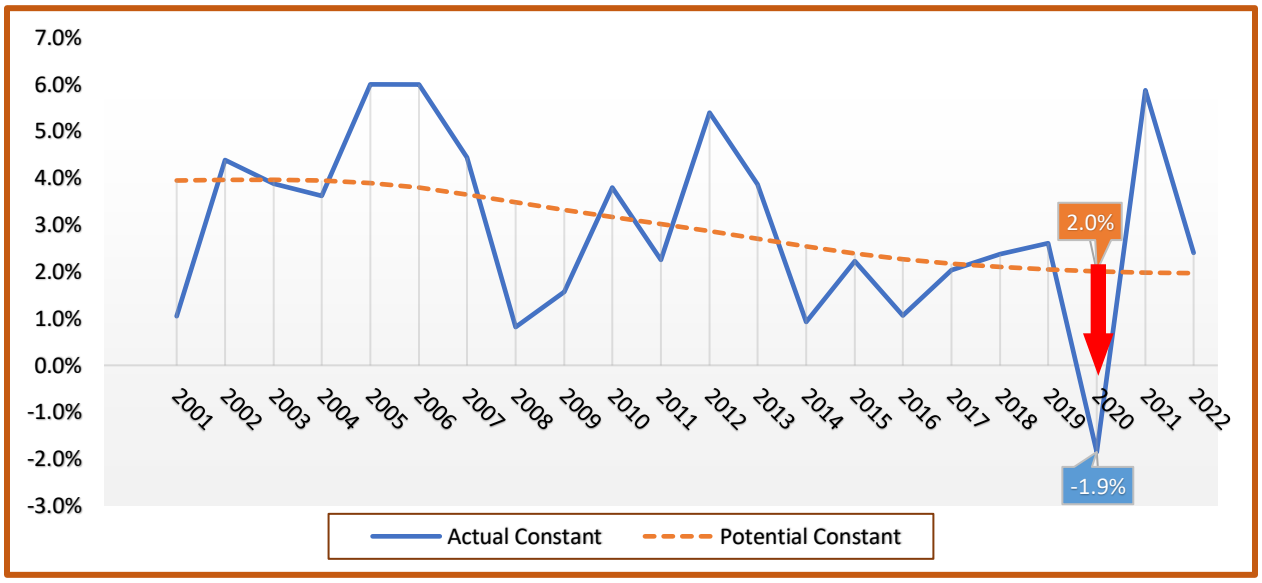
Source: Author's calculation

CHAPTER 4. IMPACT OF COVID-19 ON ECONOMIC OUTPUT

The impact of COVID-19 on economic output is observed clearly in 2020 and more precisely in the advent of the first wave of COVID-19, which triggered stronger lockdown restrictions that weighed negatively on economic activity. According to data sourced from the Central Statistical Office (CSO, September 2021), Eswatini's real GDP contracted by 1.9 percent in 2020, from an increase of 2.6 percent in 2019. In calculating the potential real GDP using an HP Filter, the results indicated that the country's potential growth was 2.0 percent in 2020, although, reflecting an overall declining trend since the turn of the 21st century. The potential growth for the country shows that if assuming all factors of production in the economy were utilized at optimal levels, and under normal circumstances as observed in the pre-COVID-19-era, domestic economic activity would have expanded by 2.0 percent. Thus, the actual (observed) growth of (-1.9) percent is 3.9 percentage points lower than what could have been potentially realized.

In terms of levels, gross economic output is estimated to have been (in nominal terms) E4.378 billion lower than the potential output, in the absence of the COVID-19 pandemic shock. This implies that the economy lost a total amount of E4.378 billion, in nominal output, due to COVID-19-induced disruptions (particularly during the first wave of COVID-19 where there were severe economic disturbances). Given these losses, it can be assumed that the sustained disruptions (though lesser than in the first wave) would have triggered other losses, which may be difficult to quantify further.

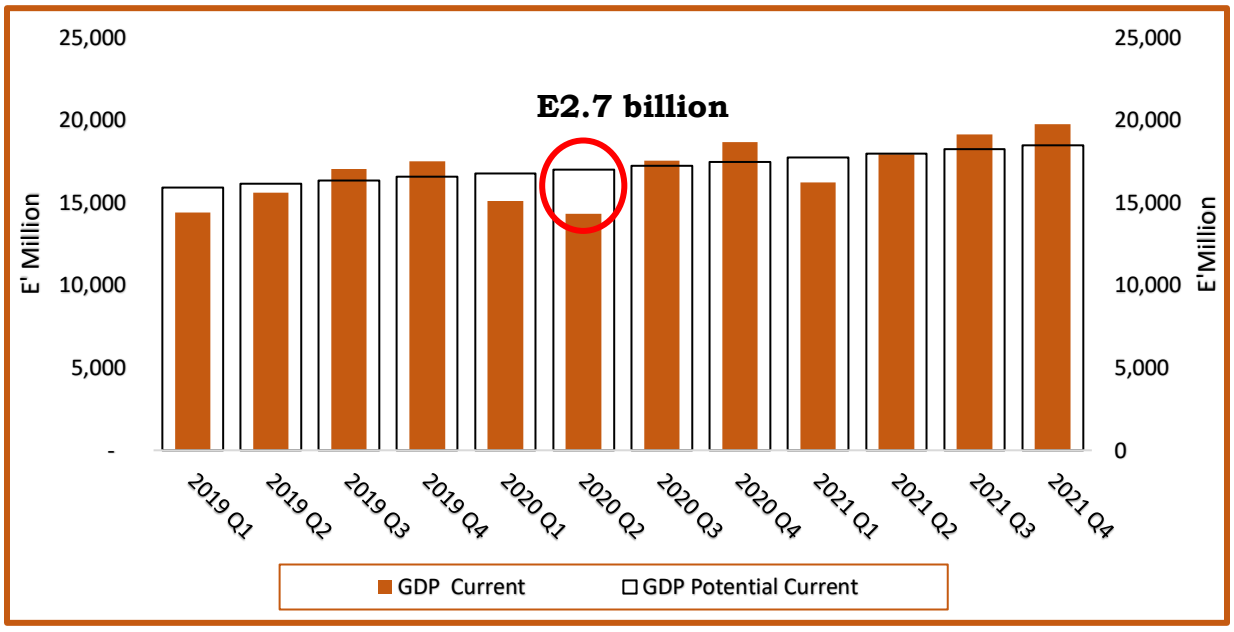
Figure 3: Actual annual GDP compared to potential GDP



Source: CSO and MFT

In close assessment of the impact on national output, using the domestic high frequency (quarterly GDP) data, it was revealed that most of the losses incurred coincided with the onset of the COVID-19 pandemic. Relative to potential quarterly GDP, actual GDP output was lower by E2.696 billion (in nominal terms) in the second quarter of 2020. This reflects that bulk of the output loss coincided with the period of strict restrictions (i.e., on travel and gathering) that were imposed in April and May 2020. In growth rate terms, real GDP was lower by 13.2 percentage points relative to what could have been in the absence of the shock.

Figure 4: Actual Quarterly GDP compared to Potential GDP



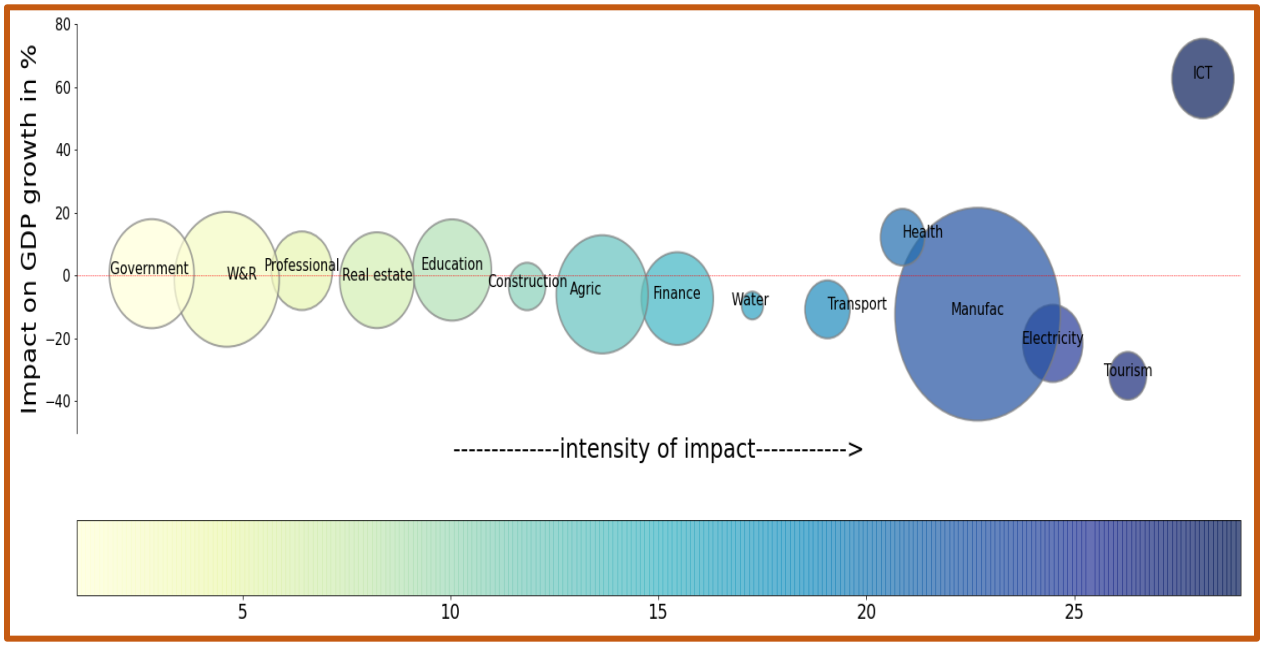
Source: CSO and MFT

4.1. Impact on selected productive sectors

This section provides an in-depth analysis of the sectoral impacts due to COVID-19 pandemic. An overview on the various sectors' response to the pandemic is observed to have had varying dynamics. On one hand, some sectors were significantly impacted, whilst others reflected resilience and benefitted positively. Subsectors that were significantly impacted included manufacturing, tourism, and transport. The manufacturing subsector suffered from the effects of weak external demand for some of the domestic export commodities, owing to supply chain disruptions. Meanwhile, in the tourism subsector, international travel restrictions weighed negatively on international tourist arrivals in the country. Furthermore, other restrictions in the domestic economy such as a ban on social gatherings and local travel restrictions dampened the performance in the tourism and transport subsectors.

In the information, communication and technology (ICT) subsector, the new norm in doing business accelerated the demand for ICT related services thereby positively supporting the subsector. Also of note, is that some sectors faced other challenges apart from COVID-19 induced effects in 2020. For example, the 'agriculture & forestry' sector output was lower by more than E500 million relative to its potential but only E191 million could be associated with the COVID-19 impact (mainly losses in the forestry subsector). Approximately E312 million losses in the 'agriculture & forestry' subsector can be attributed to other factors such as unfavorable weather conditions and the outbreak of pests.

Figure 5: Intensity of Impact on sectors



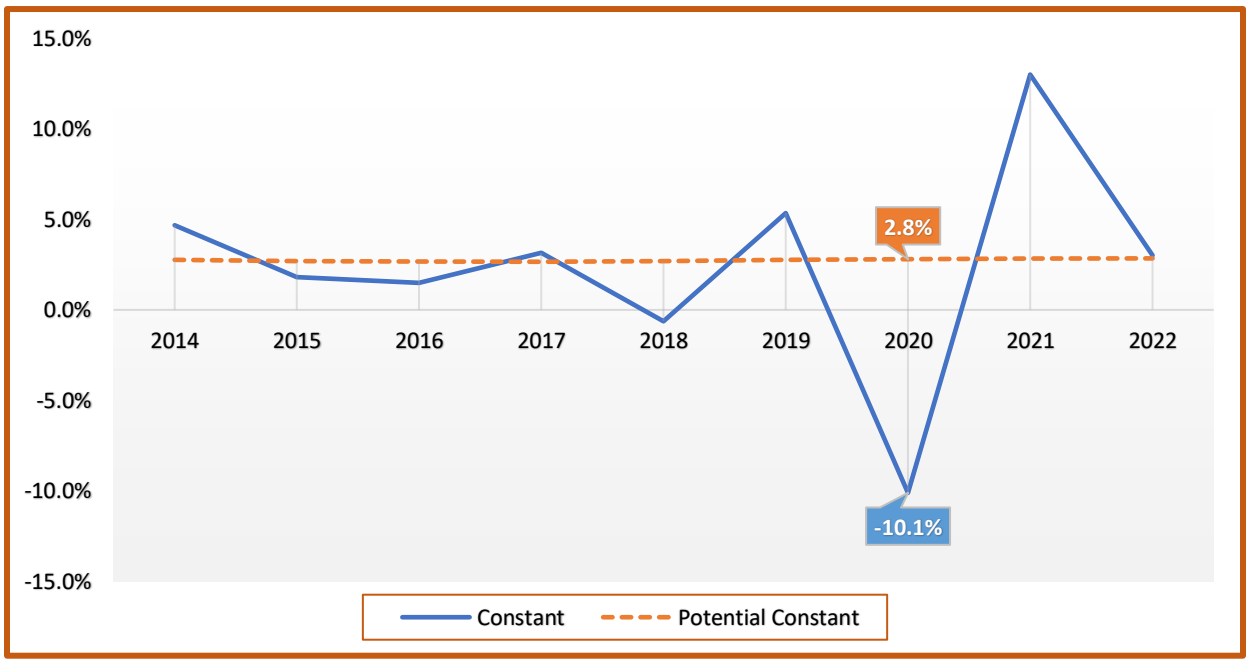
Source: MFT

4.1.1. Impact on Manufacturing

Manufacturing remains the largest contributor to domestic GDP with a share of 26.6 percent in 2020 against 29.7 percent in 2019. The subsector is estimated have lost E3.486 billion (nominal) worth of output in relation to what could have been realized in the absence of the shock. In growth terms, this subsector recorded a decline of 10.1 percent

in real terms compared to the potential growth of 2.8 percent, yielding a gap of 12.9 percentage points. This output gap resulted from weakened external demand, scaled down production levels, as well as disruptions in global value chains. Within manufacturing activity, the manufacture of beverages suffered more disruptions due to the extended ban in the consumption of alcoholic beverages, which in turn affected production.

Figure 6: Potential compared to actual manufacturing trends



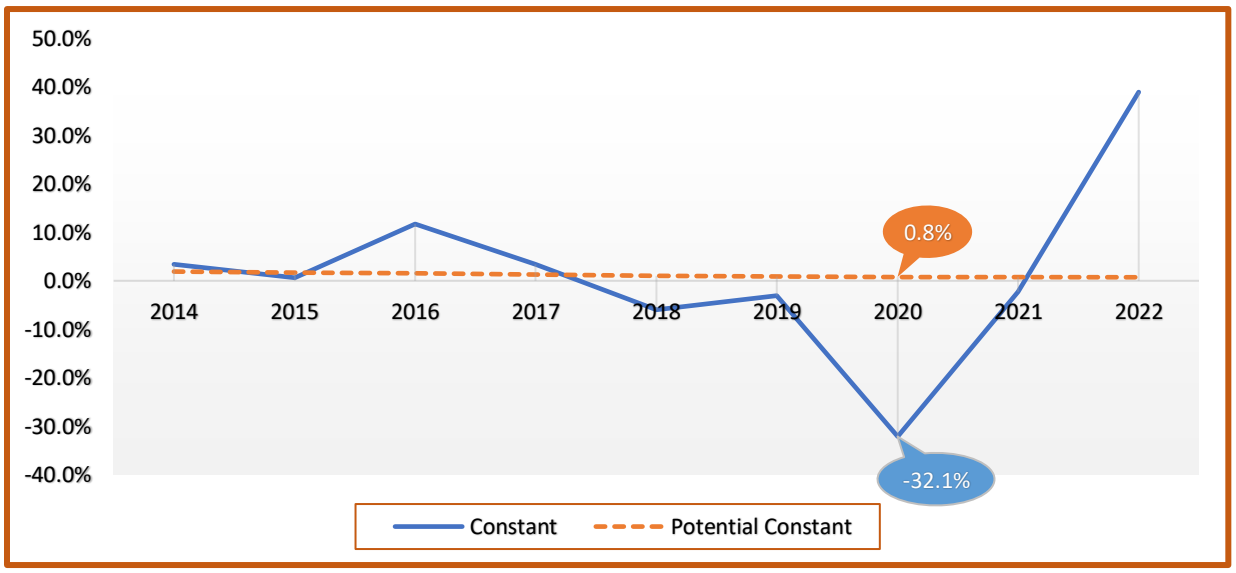
Source: CSO and MFT

4.1.2. Impact on Tourism

The domestic tourism industry is largely dependent on international tourist arrivals from; RSA (69%), Mozambique (15%) and the rest of the world (9%). The subsector further relies on domestic activity such as conferencing and hosting of events (particularly cultural activities). The restrictions on international travel coupled with local containment measures (i.e., social distancing, travel restrictions etc.), weighed negatively on tourism and tourism related activities.

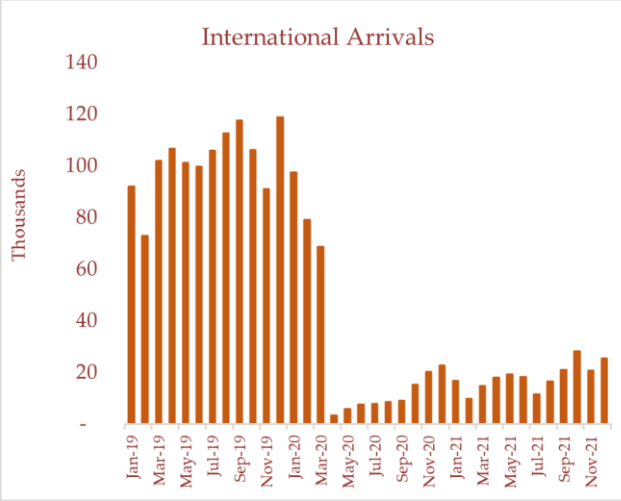
As a result, tourism output is estimated to have been lower by E399.9 million (nominal) compared to its potential on a normal year. In growth rate terms, the subsector recorded a decline of 32.1 percent in real terms in 2020. Notably, the tourism industry in terms of potential growth was already muted at 0.8 percent in the pre-COVID-19 era. Thus, the decline (in growth rate terms) associated with COVID-19 is equivalent to 32.9 percentage points below potential.

Figure 7: Tourism actual output against potential output

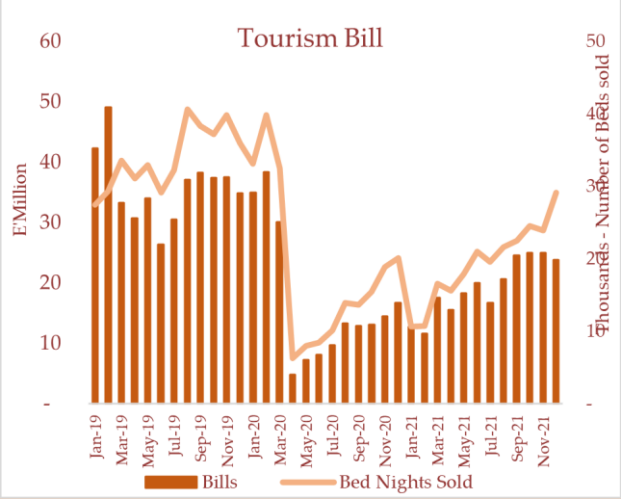


Source: CSO and MFT

Information Box 2: Potential impact on the Hospitality establishments



Source: Eswatini Tourism Authority



Source: Central Statistics Office

Performance of hospitality establishments

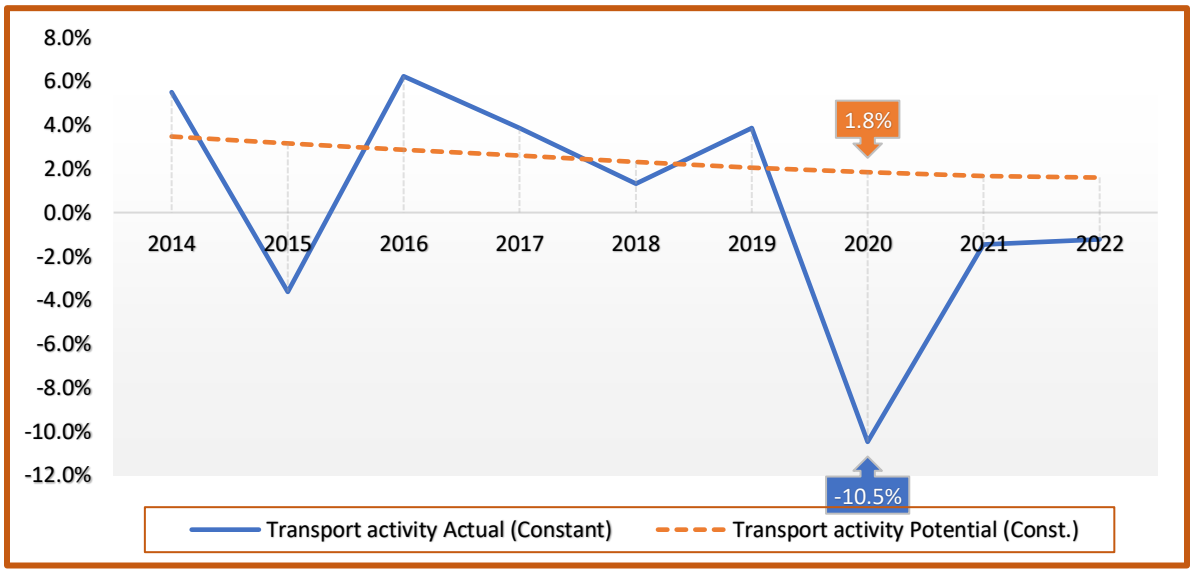
The tourism industry suffered significantly, as a sector within the contact-facing activities. Local establishments are estimated to have suffered a major blow as there was a halt in operations for a period of about 6 months. This was due to a combination of factors i.e.: a fall in the number of tourist arrivals, restriction on social gatherings (0 to 50 people), banning of cultural and entertainment events, restrictions in the consumption of alcohol, imposed domestic curfews, as well as reduced conferencing activities (due to work from home policy). International arrivals contracted by 71.8 percent from 1,225,514 recorded in 2019 to 219,376 in 2020. Similarly, the tourism bill was down by 52.7 percent partly due to bed-nights sold which declined 45.9 percent in the period.

The collapse in the tourism indicators coincided with the first wave, which had strict travel restriction both domestically and internationally thus having huge ramifications for the tourism sector. On analysis, it was observed that a hospitality establishment is likely to have made a loss of about E2.7 million in 2020, on average, on account of the COVID-19 situation.

4.1.3. Impact on Transport & Storage Services

Under the transport subsector, a 10.5 percent decline, equivalent to E277.2 million was observed as a result of the restrictions imposed to deal with the pandemic. This is in comparison to an estimated potential growth of 1.8 percent that would have been realized without the pandemic. Notably, the sector was already on a downward trajectory, with the outbreak of COVID-19 further dampening the situation.

Figure 8: Actual transport growth against potential transport growth



Source: CSO and MFT

Information Box 3: Impact on Public Transport

A synopsis of the estimated potential losses to a public transport entity due to COVID-19

The transport industry was amongst the hardest hit sectors following the travel restrictions that were imposed in consideration of the COVID-19 pandemic. This follows that the COVID-19 epidemic was highly infectious and weighed heavily on contact-facing activities hence imposing restrictions related to people's movements was inevitable. The pronouncement made in-country, on March 27th, 2020, constrained public transport operations by imposing reduced passenger capacity as well as the number of daily trips covered, to maintain the 1-metre social distancing and also focused on essential travelling.

As a result, the number of passengers was reduced from the normal 100 percent capacity to 50 percent and subsequently 70 percent for all public transport vehicles. Government continually assessed the effect of this policy on the sector, necessitating a review or easing of the restriction. The effect of these restrictions mainly on public transport owners was the reduced gross earnings, falling by 83.3 percent in the first wave coinciding with the severe restrictions in the period.

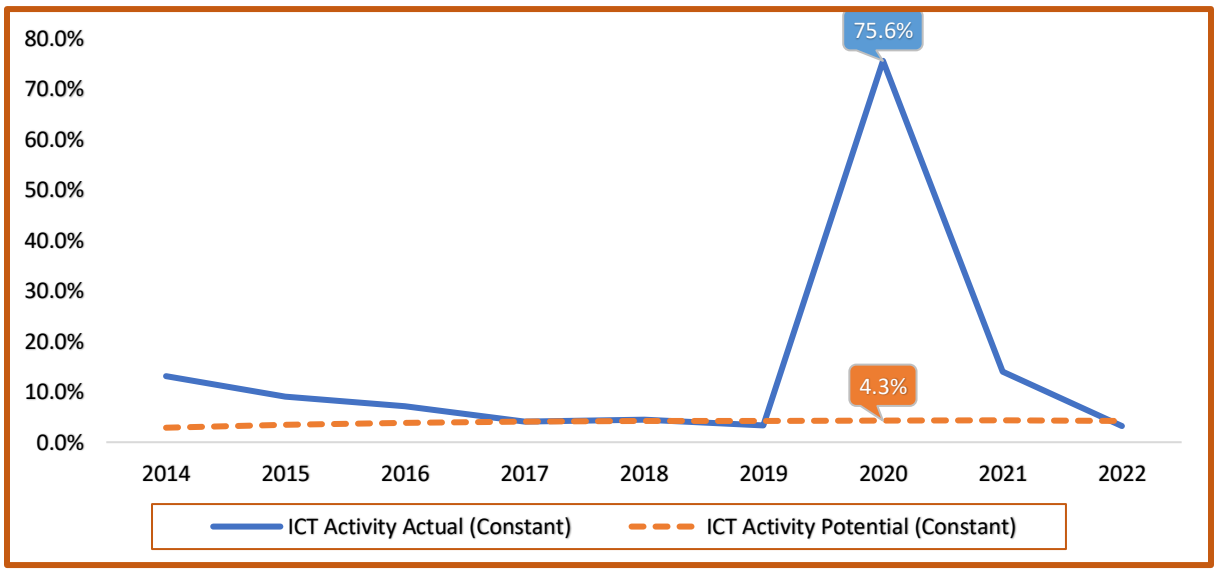
Shocks	Passengers	Trips	Days	Bus fare	Monthly Takings	Change
Baseline (before shocks)	14	6	30	26	65,520	-
COVID-19 (worse case - 1st wave)	7	4	15	26	10,920	-83.3%
COVID-19 (2nd wave)	10	5	30	26	39,000	-40.5%
COVID-19 (3rd wave)	14	6	30	26	65,520	0.0%

Source: Author's calculations; figures benchmarked on Mbabane-Manzini route.

4.1.4. *Impact on Information, Communication & Technology (ICT)*

Contrary to the experience of other subsectors, the COVID-19 outbreak brought positive spillovers for the ICT subsector, which translated to a significant growth of 75.6 percent in 2020. In terms of potential growth, the subsector was growing below its potential prior to the COVID-19 shock. In the absence of the pandemic, the subsector would have increased by 4.3 percent in 2020. However, at the onset of COVID-19 with the associated restrictions for containing the pandemic, the use of digital platforms in conducting business gained momentum and resulted in a significant increase in demand for data services. As a result, the ICT subsector outperformed its potential growth by 61.3 percentage points. This is equivalent to an output gain valued at E906.7 million (nominal) than what would have been realized in the absence of the pandemic.

Figure 9: ICT actual and potential growth trends



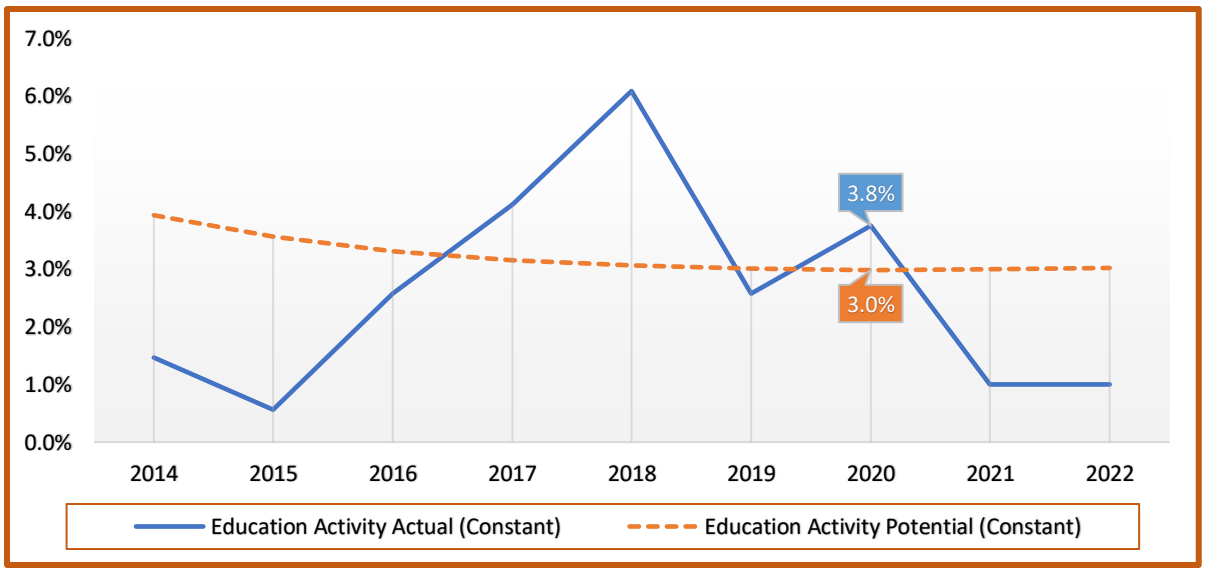
Source: CSO and MFT

4.1.5. *Education*

In terms of production of education services in volume terms, the education subsector appeared to have been 0.8 percentage point above potential. This is mainly because at the time of the COVID-19 shock, the volume indicators such as enrollment levels and number

of teachers engaged for the year was already set. In nominal value terms, however, the education subsector recorded losses (relative to potential) amounting to E1.845 billion in 2020. It is important to note though that under the education subsector there are more of unquantifiable losses that emanated from the significant disruptions in learning which is anticipated to have amplified challenges in education subsector, and further compromised the quality of education in the economy. Moreover, despite mitigation efforts pursued to ensure that learners are not left behind through use of other educational facilities, i.e., online learning, radio, and other media services, the access to these facilities may have not covered all children due to several factors.

Figure 10: Education actual and potential growth



Source: CSO and MFT

Information Box 4: Effects on the Education sector

A synopsis of the potential impact of the COVID-19 pandemic on the Education sector

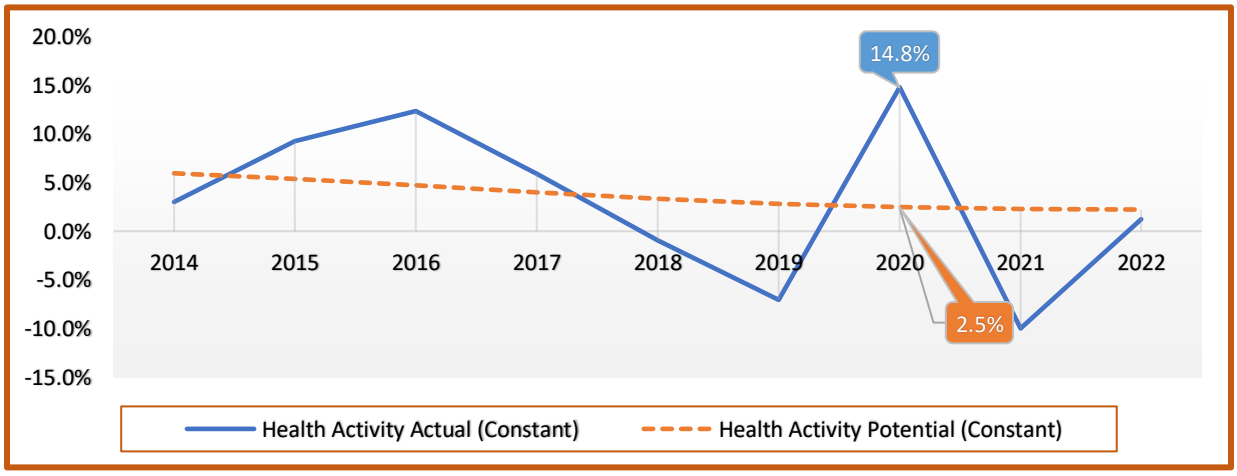
The COVID-19 outbreak is anticipated to have left scarring effects on the education sector mainly through widening the disproportion in access to education. The imposed containment measures resulted in the abrupt closure of schools for a prolonged period, which necessitated the use of new learning platforms (i.e., e-learning, media broadcasting etc.). However, these developments fell short in terms of access to education between urban and rural areas. Furthermore, the infrastructural limitations prevailing, in terms of internet facilities and availability of the digital gadgets, additionally amplified the learning inequalities in the country by widening the education access gap.

The drop-out rates were also observed to be high on account of constrained disposable incomes following job losses emanating from the closure of some companies. Additionally, the surge in drop-out rate was also driven by the reported increase in pregnancy rate. The education access gap is expected to pose detrimental effects to human capital development in the country, necessary for inclusive and sustainable growth.

4.1.6. Health

The health sector grew by 14.8 percent in 2020, compared to a historical potential growth of 2.5 percent. The positive gap is largely explained by the notion that COVID-19 was a health crisis and demanded production of more health services in the fight against the pandemic. The increase in production in real terms, however, did not translate to an increase in nominal value earned by the sector (relative to potential).

Figure 11: Health actual and potential growth

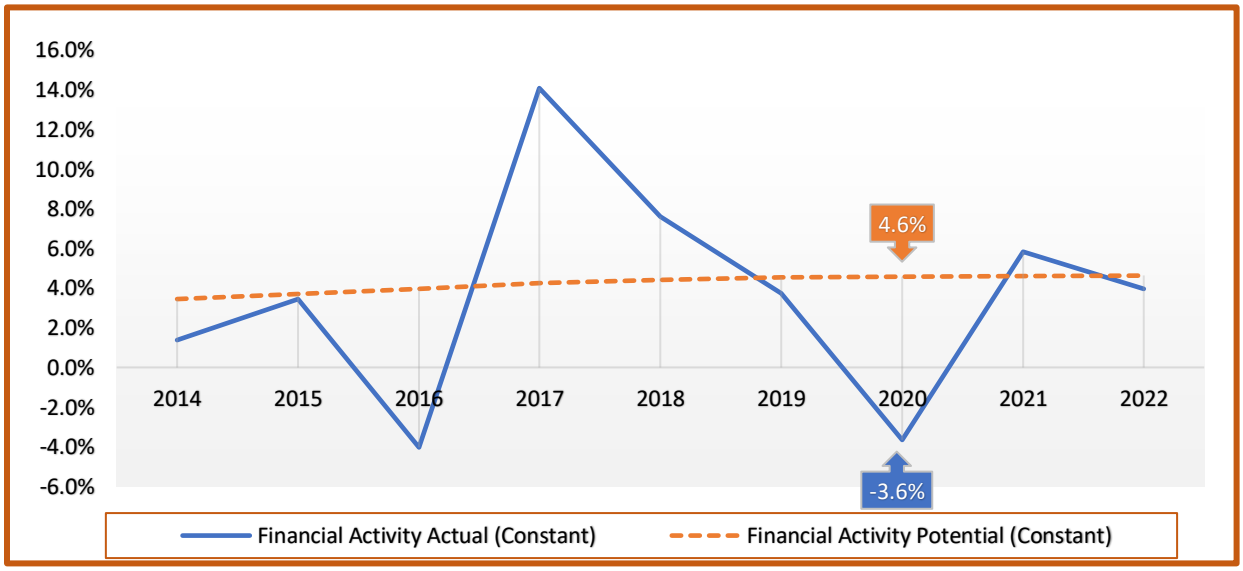


Source: CSO and MFT

4.1.7. Financial

The financial services sector recorded a decline of 3.6 percent in 2020 relative to a potential growth of 4.6 percent yielding a gap of 8.2 percentage points. The decline was due to weak economic activity, which affected interest income from credit extension as well as the negative impact of lockdown measures on transactions activity, negatively affecting non-interest income. Insurance and pension services' output was curtailed as the growth in claims exceeded that of premiums. Tight liquidity conditions in global financial markets coupled with the collapse in commodity markets at the advent of COVID-19 also weighed negatively on offshore asset investment. The financial services sector recorded potential losses equivalent to E450.0 million in nominal terms.

Figure 12: Financial actual and potential growth

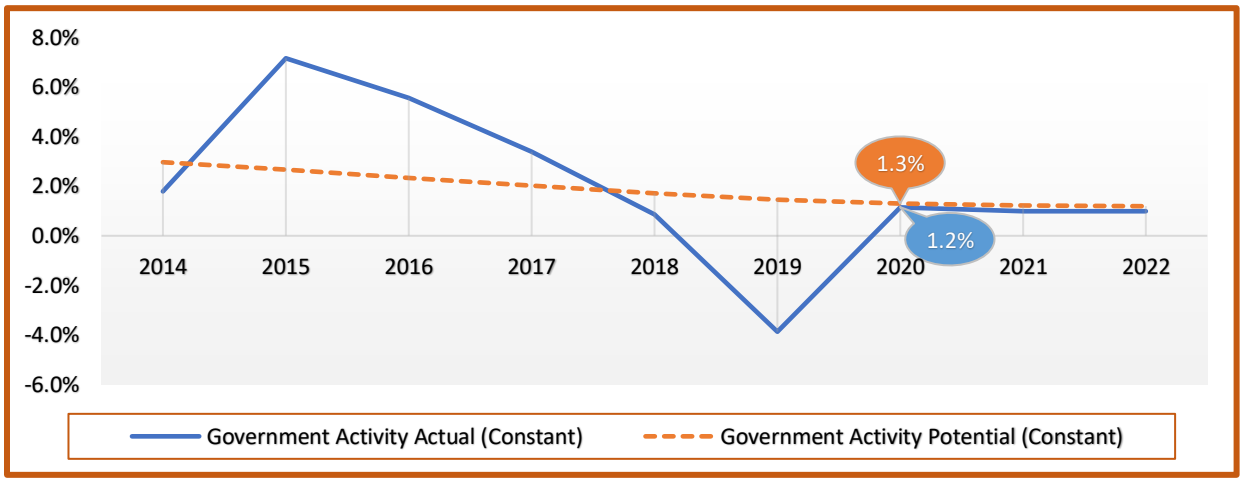


Source: CSO and MFT

4.1.8. General Government

In terms of volumes (i.e., payroll numbers) the general government services was aligned to its potential growth of 1.3 per cent. However, in nominal value terms, government expenditures were increased to be E1.064 billion above potential, supporting activities directed to fight against the COVID-19 pandemic.

Figure 13: General Government actual and potential growth and Levels trends



Source: CSO and MFT

Table 2 provides a summarized overview of selected sectors potential losses and gains in monetary levels and percentage.

Table 2: Summary of sectoral Impact in Growth rates and levels

	2020			
	Actual Growth	*Potential Growth*	*Percentage points loss/gains*	*Losses/Gains in E' Millions*
Manufacturing	*-10.11*	*2.21*	*-12.3*	*(3,486.25)*
Tourism	*-32.12*	*-0.42*	*-31.7*	*(399.13)*
Transport	*-10.48*	*0.31*	*-10.79*	*(443.47)*
Financial	*-3.6*	*4.6*	*-8.2*	*(450.01)*
Education	*3.75*	*2.98*	*0.77*	*(1,844.50)*
ICT	*75.56*	*13.66*	*61.89*	*906.65*

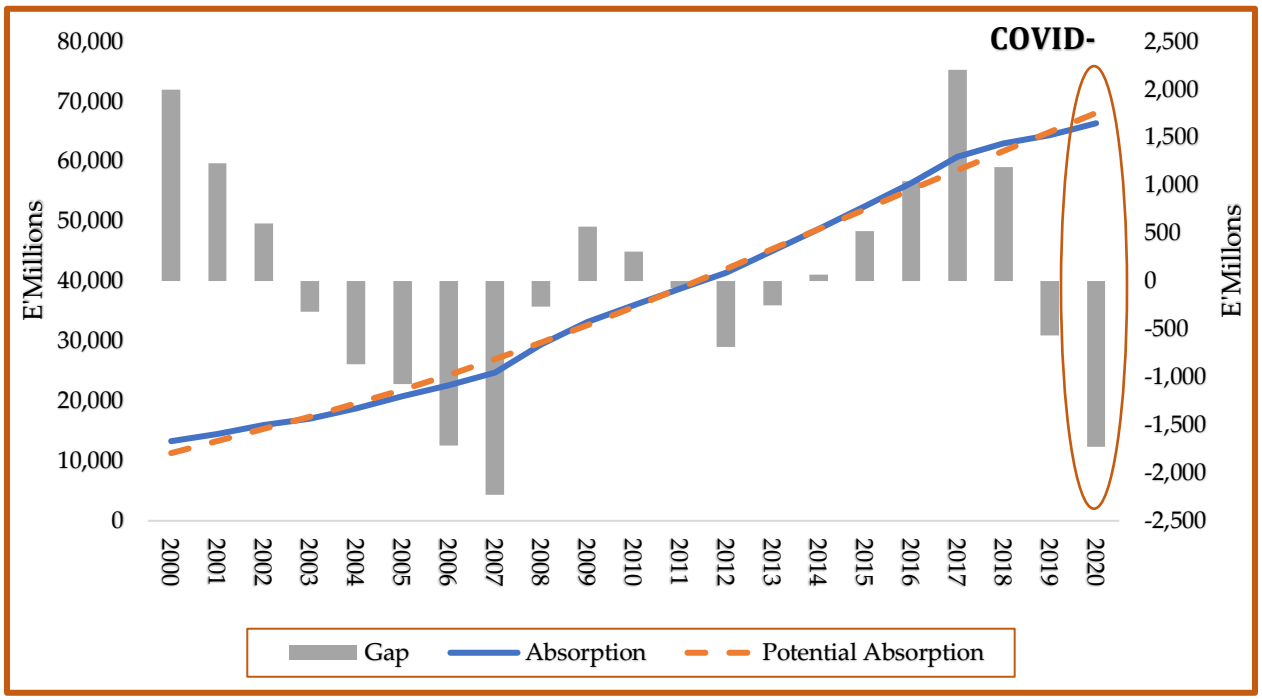
Source: MFT

4.1.9. Domestic Absorption

Domestic absorption, which is a measure of total demand for all final goods and services in the economy produced by economic agents, reflected a 2.5 percent decline, relative to its potential in 2020. Prior to the advent of COVID-19, domestic absorption (i.e., demand) was already depressed in 2019 at 0.9 percent below potential. Thus, it is observed that the advent of COVID-19 in 2020 further weakened domestic demand by approximately 1.6

percentage points. The fall is attributed to the sharp decline in investment spending and a slower growth in the consumption level, as the main components of domestic absorption.

Figure 14: Absorption trends



Source: CSO and MFT

4.2. Other impact due to COVID-19

The decline in production had spillover effects in other segments of the economy notably trade, fiscal, and monetary sectors. With respect to trade, lower output meant a decline in exports relative to what was potentially achievable. Lower output also translated to lower tax collection and domestic revenues. These impacts are further analyzed, below, in a disaggregated manner.

4.2.1. Impact on the Fiscal Sector

The fiscal sector comprises of government revenue mobilization and expenditure, financing, and debt. To quantify the impact of COVID-19 in the fiscal sector, both revenue

mobilization and expenditure rationing were assessed. In terms of revenue assessment, only the domestic tax component was proxied, i.e., personal income tax (PIT), corporate income tax (CIT) and value added tax (VAT). These income tax categories form the major components of domestic revenue collections. The assessment was based on how responsive these taxes were to changes in GDP, which was used as the broad tax base. The total tax revenue in the absence of the shocks was estimated by means of 3- and 5-year averages of tax buoyance and effective tax rates.

4.2.1.1. Impact on Tax Revenue

To assess the impact of COVID-19 on tax revenue, GDP is used as the broad tax base for taxes such as income taxes (Corporate and Personal Income Tax) and consumption taxes (mainly Value Added Tax). In this regard, the observed actual tax revenue for fiscal year (FY) 2020/21 (the period dominated by COVID-19) is compared to what could have been the realized in taxes, assuming the country was operating at its full potential (i.e., normal operations). The assumptions for the different major tax lines that use GDP as a tax base are summarized in Table 3.

Table 3 : Tax Assumptions for Potential Tax Revenue

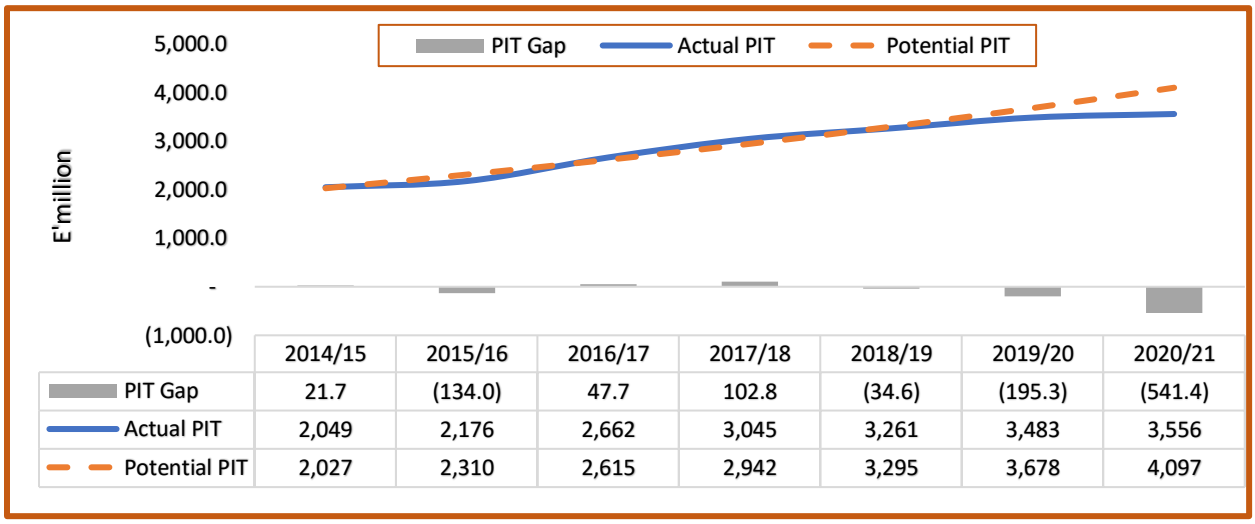
TAX ASSUMPTIONS		BUOYANCY/TAX RATE
Personal Income Tax (PIT)	Based on a (5- and-10-year average) buoyancy to nominal GDP	1.8 percent
Corporate income tax (CIT)	Based on the effective tax rate to nominal GDP (average for 3-years)	2.4 percent
Value Added Tax (VAT)	The effective tax rate on Nominal GDP (average for 3-years)	4.4 percent
GDP Assumptions (As a Tax Base)		
Potential GDP	Potential GDP is estimated using HP filter, based on pre-COVID-19 growth assumptions (produced by MFT in January 2020). For FY 2020/21, potential nominal GDP growth is estimated at 6.5%	
Actual GDP	Actual GDP is based on CSO Official estimates for 2020 as well as MFT estimates for 2021 as published in January 2022 Review. For FY 2020/21 actual nominal GDP growth is estimated at 3 percent.	

Source: MFT

4.2.1.1.1. Personal Income Tax

Based on the assumptions, the potential PIT for FY 2020/21 was estimated at E4.097 billion. Actual data for the same period was reported at E3.556 billion, reflecting that, the personal income taxes were lower by 13.2 percent relative to potential, which is equivalent to a potential loss amounting to E541.4 million.

Figure 15: Personal Income Tax (PIT) Actuals Compared to Potential



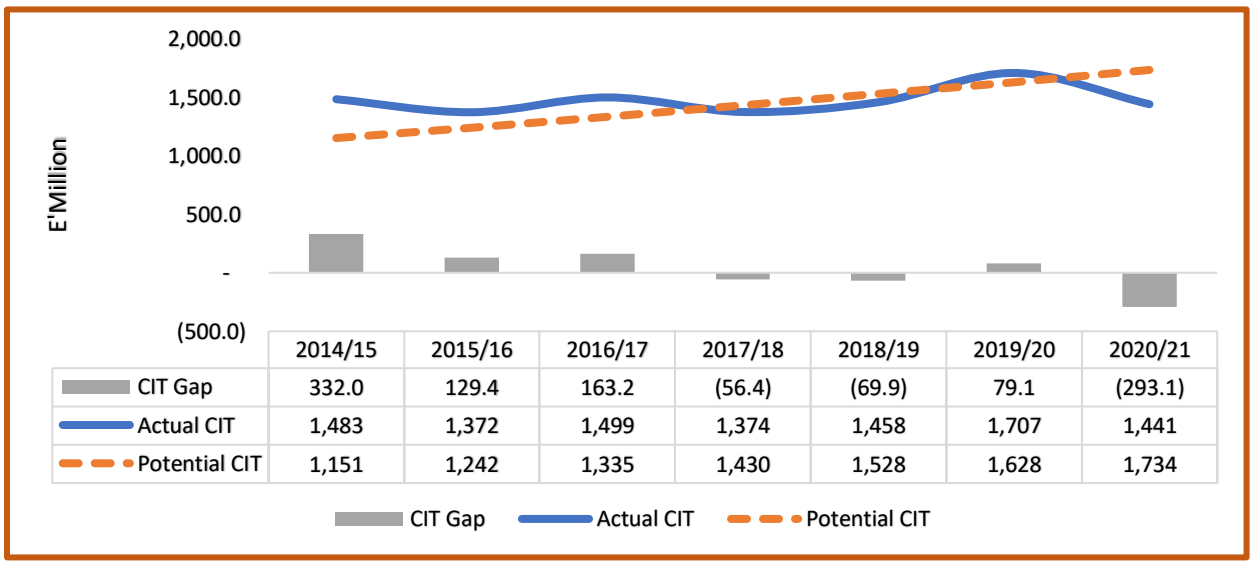
	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
PIT Gap	21.7	(134.0)	47.7	102.8	(34.6)	(195.3)	(541.4)
Actual PIT	2,049	2,176	2,662	3,045	3,261	3,483	3,556
Potential PIT	2,027	2,310	2,615	2,942	3,295	3,678	4,097

Source: MOF and MFT

4.2.1.1.2. Corporate Income Tax

Actual data depicts that CIT collections for 2020/21 were recorded at E1.441 billion. This indicated a E293.1 million gap below potential CIT (applying effective taxes rates to potential output), which is estimated to have been E1.734 billion. In growth terms, this reflected a 16.9 percent decline, relative to what was potentially achievable.

Figure 16: Corporate Income Tax actual compared to potential



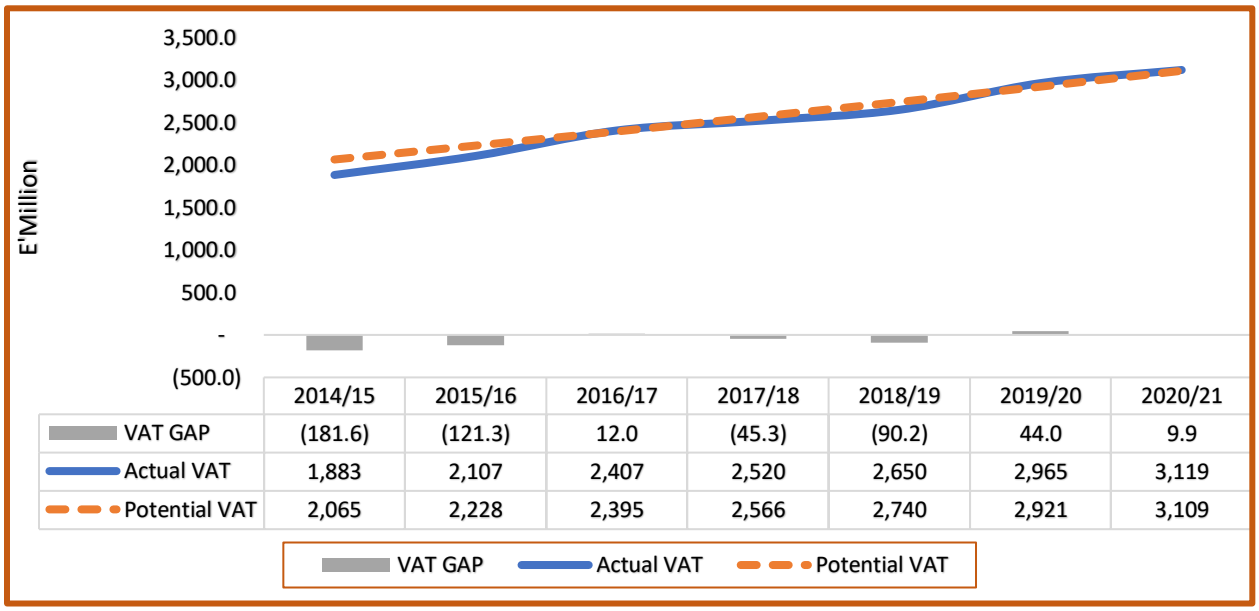
	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
CIT Gap	332.0	129.4	163.2	(56.4)	(69.9)	79.1	(293.1)
Actual CIT	1,483	1,372	1,499	1,374	1,458	1,707	1,441
Potential CIT	1,151	1,242	1,335	1,430	1,528	1,628	1,734

Source: ERS and MFT

4.2.1.1.3. *Value Added Tax*

VAT is estimated at E3.109 billion (based on the potential GDP) for the year 2020/21. Actual VAT collections almost matched the potential (at E3.119 billion) despite the shock of COVID-19, with a small positive variance of E9.9 million.

Figure 17: Value added Tax actuals compared to potential



	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
VAT GAP	(181.6)	(121.3)	12.0	(45.3)	(90.2)	44.0	9.9
Actual VAT	1,883	2,107	2,407	2,520	2,650	2,965	3,119
Potential VAT	2,065	2,228	2,395	2,566	2,740	2,921	3,109

Source: ERS and MFT

The total losses observed when comparing the potential achievable (based on potential GDP) and the actual tax revenues for selected lines (PIT, CIT and VAT) collected by the Eswatini Revenue Services (ERS), can be further partitioned into two categories namely, (i) losses due to lower actual GDP relative to potential[3] and (ii) efficiencies, policy changes and administrative measures related losses/gains. The results of this disentanglement are reported in Table 4. For PIT, losses due to GDP-gap are higher at E608.6 million though with efficiency gains amounting to E67.2 million. The efficiency gains can be attributed

[3] The losses due to lower GDP are calculated by applying the same buoyancy / effective tax rates to both potential and actual nominal GDP. Losses related to efficiencies are calculated as a residual between total losses and losses due to lower GDP.

to COVID-19 debt relief measures, which were implemented to cushion businesses from the shock. Moreover, within the E293.1 million total losses estimated for CIT, only E105.8 million is due to GDP-gap, inefficiency losses amounted to E187.2 million.

On VAT, GDP-gap related losses were estimated at E189.8 million, however these are fully overshadowed by efficiency/policy gains of approximately E200 million. The gains in VAT are mainly linked to clearance of VAT- arrears by some owing entities, which broadly benefited from debt relief measures implemented at the height of COVID-19. Notably however, is that the relief measures had an opposite impact on CIT.

Table 4: Summary losses in Tax

Tax Type	Personal Income Tax (E')	Company Income Tax (E')	Value Added Tax (E')
Tax Actual Collection [I]	3.556 billion	1.441 billion	3.119 billion
Tax based on actual Nominal GDP [II]	3.488 billion	1.628 billion	2.920 billion
Tax based on Potential GDP [III]	4.097 billion	1.734 billion	3.109 billion
Total Potential Losses [I]-[III]	-541.4 million	-293.1 million	9.9 million
Losses due to lower GDP Outcome [II]-[III]	-608.6 million	-105.8 million	-189.8 million
Efficiency and policy gains (net) [I]- [II]	67.2 million	-187.2 million	199.7 million

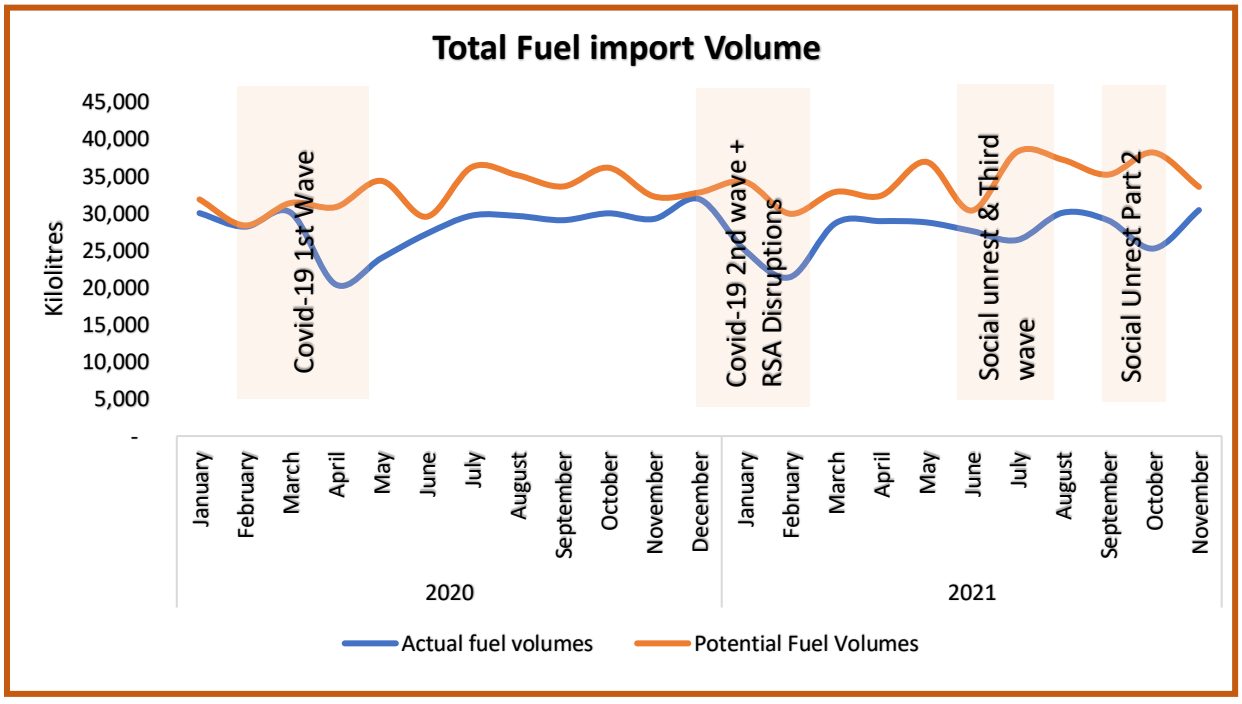
Source: ERS and MFT

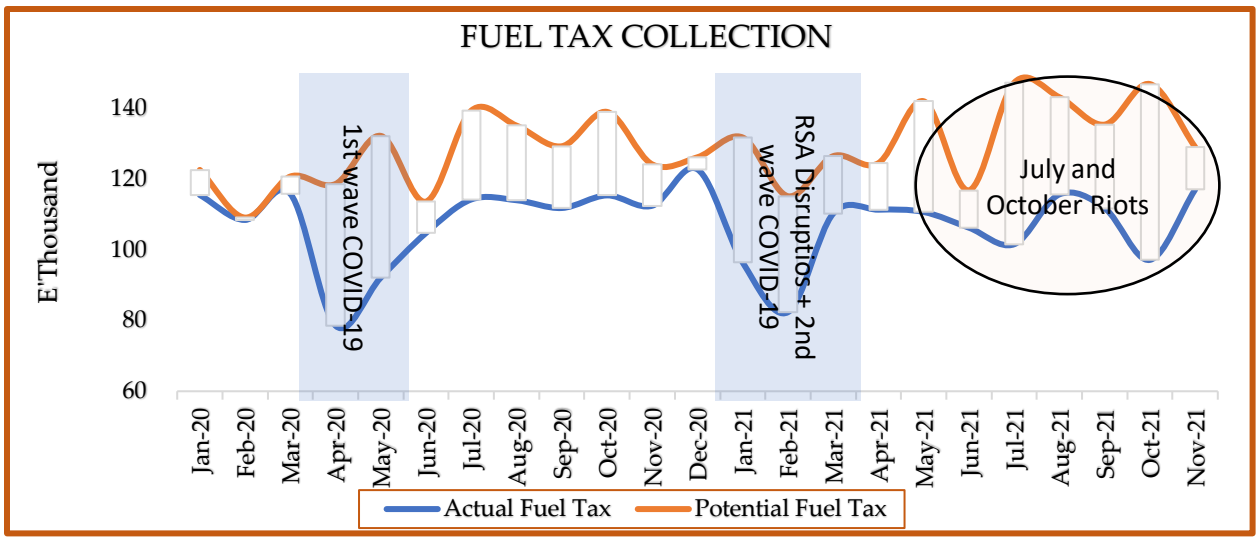
Total losses due to GDP being lower than potential for the three (3) main taxes (PIT, CIT & VAT) is estimated at E904.2 million, which prospectively represent losses due to COVID-19 in 2020/21.

4.2.1.1.4. Fuel Taxes

Actual fuel import volumes declined by 12.9 percent to record 326,202 kiloliters for the financial year 2020/21, compared to 374,649 kiloliters in 2019/20. The significant decrease in total fuel import volumes reflects a 16.8 percent gap from fuel volumes that would have been potentially observed. As a result, actual fuel taxes, as levied (E3.85 levy as at 2020) on fuel imports, is estimated to have declined by 15.2 percent relative to potential achievable in 2020/21 fiscal year. At the advent of COVID-19 and its associated factors, fuel taxes declined by 24.4 percent relative to potentially achievable in the second quarter of 2020, coinciding with the first wave of COVID-19.

Figure 18: Other Taxes (Fuel Imports Volumes and Fuel Tax)





Source: MONR and MFT

4.2.2. Impact on Government Expenditures

Analysis for adjustments in government expenditures was done using the HP-filter, to assess the pre-COVID-19 budget expenditures (in the fiscal framework) against what would have been (potentially). The analysis results reflect that total government expenditures would have risen to E25.898 billion in the period under review against actual expenditures of E23.245 billion in FY 2020/21 indicating adjustment of about 10 percent (relative to the potential).

Main expenditure item lines that were adjusted in the period were the capital expenditure and goods and services. The capital expenditure was lower by E1.603 billion (24.3 percent) relative to what it could have been in the absence of the COVID-19 shock. This adjustment was driven by the disruptions on construction activity at the wake of the COVID-19, which slowed the implementation rate of most capital projects, while there was also a redirection of some funds towards the fight against the pandemic.

Similarly, expenditures on goods and services were lower by E803.3 million, relative to potential as spending on travel and professional services was curtailed due to the enforced restrictions as well as the introduction of the 'work from home policy'. There

were no significant changes observed in the expenditures on 'compensation of employees' and 'transfers'. Interest payments and debt costs were however higher by E210.7 million (17.1 percent) relative to potential as more debt was acquired to compensate for the shortfall in government revenues coupled with exchange rate depreciation in the period.

Table 5: Actual Versus Potential Expenditures in 2020/21

Expenditure Items	Estimated Potential (E^P)	Actual (E^a)	Difference (E^a-E^P)
	In E' Million		
Total Expenditure	25,898	23,245	(2,653)
Compensation of Employees	8,405	8,374	(31)
Goods & Services	3,701	2,898	(803)
Transfers	3,454	3,535	80
Capital Expenditure	6,602	4,999	(1,603)
Interest Expenses	1,233	1,444	211

Source: Ministry of Finance & MFT Estimates

4.2.3. Impact on the External Sector

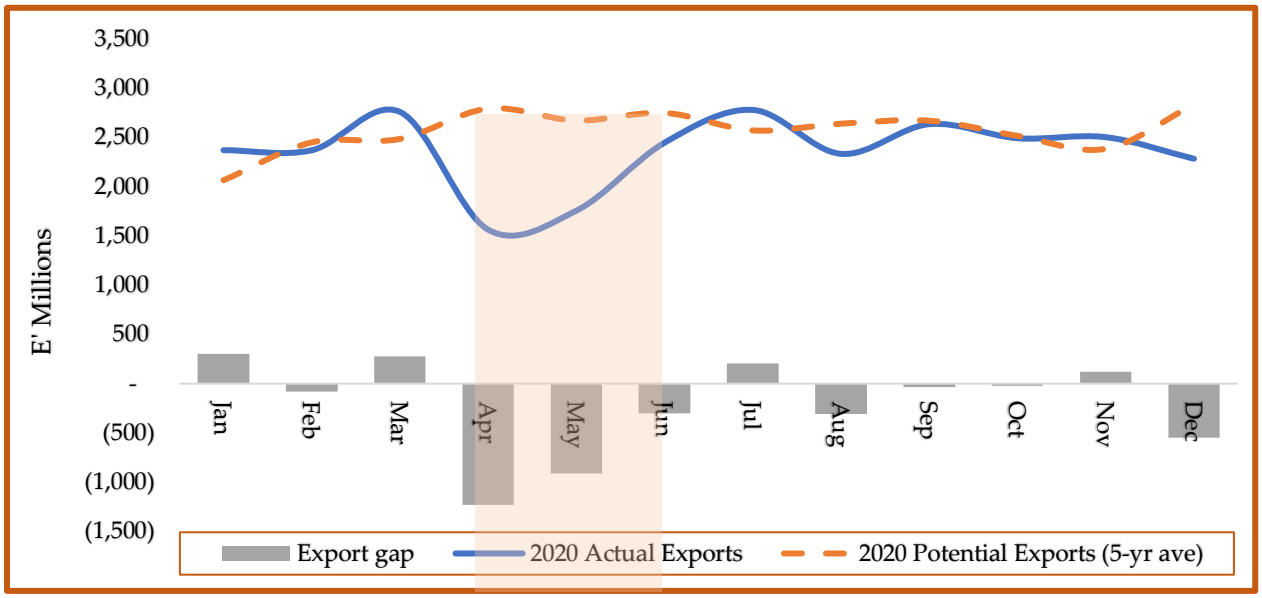
The Eswatini economy is an open economy and relies heavily on trade. The country's main trading partner has remained the Republic of South Africa (RSA), with about 74 percent accounting for imports and 69 percent for exports. Developments in the RSA economy has, over time, been linked to be the source for major issues for the domestic economy. At the advent of COVID-19, RSA like other countries, effected a number of restrictions including border-shutdowns, which disturbed supply value chains in the domestic economy. An in-depth analysis of the COVID-19 impact on trade is discussed below.

4.2.3.1. Impact on Merchandise Exports

The impact on trade was assessed using the five (5) year annual growth rates for corresponding months, as a basis for what could have been realized in the absence of the

pandemic. Considering the potential output for trade, total exports would have increased by 9.1 percent in 2020. Actual data analyzed depicted a 1.0 percent decline for overall nominal exports, which is 10.1 percentage point lower than what could have been in the absence of COVID-19 shock. In terms of levels, nominal exports were lower by E2.536 billion compared to what could have been realized in 2020, with about E2.445 billion lost only in the second quarter of the year. This was associated with the negative effects of COVID-19 wherein harder lockdowns were imposed in the domestic economy.

Figure 19: Total Exports Trend Compared to Potential Exports for 2020

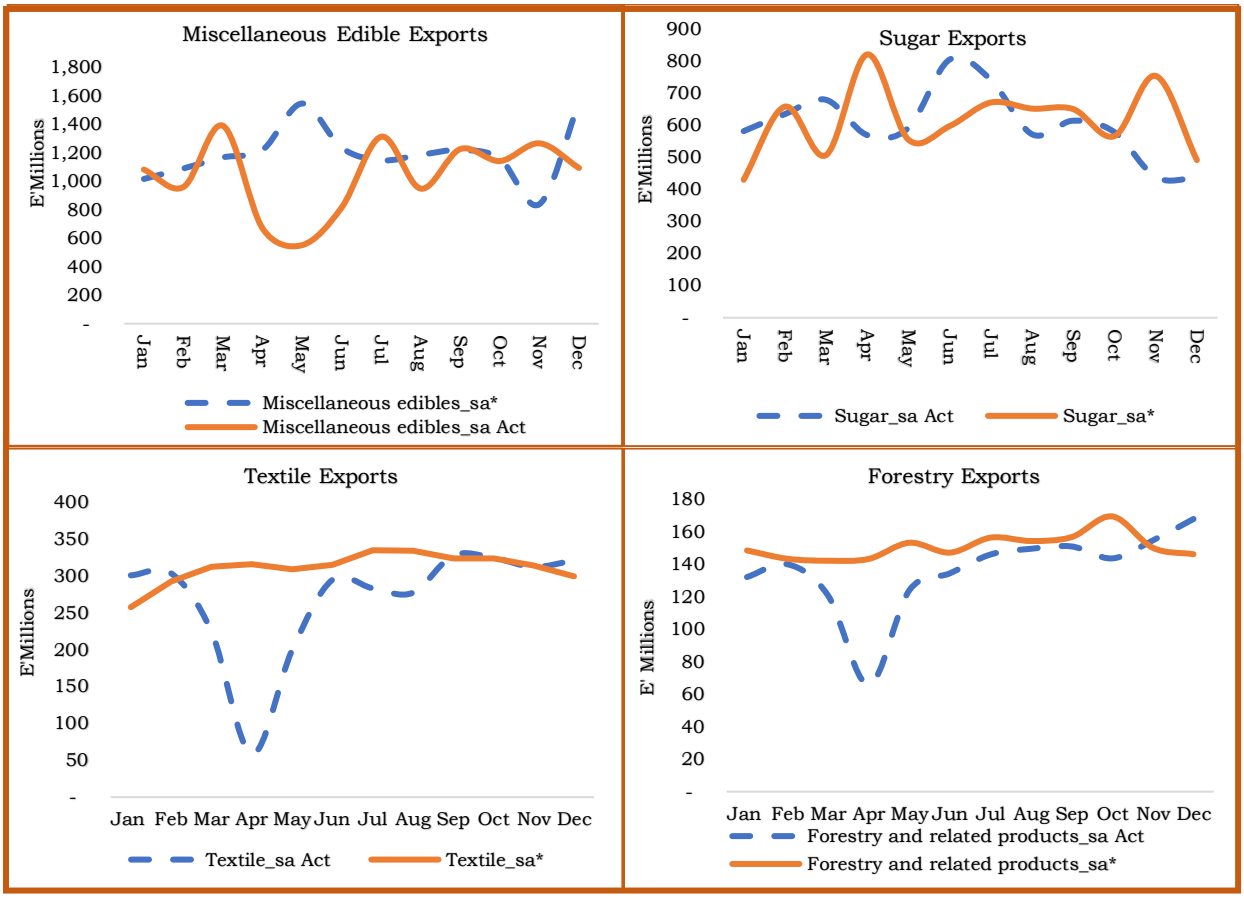


Source: ERS and MFT

Further assessment of the impact was done on the different major export lines, that is 'miscellaneous edibles', 'sugar', 'textiles' as well as 'forestry and related products'. Data available indicated that exports for 'miscellaneous edibles' were E1.966 billion lower in the second quarter of 2020, relative to what would have been potentially achieved based on five (5) years corresponding monthly' growth rates. Similarly, exports for 'textiles' were estimated to have been E388.3 million lower while exports for 'forestry products' were E119.5 million lower. On the contrast, exports for 'beverage products' (mainly ethanol) made gains of about E199.8 million compared to what would have been realized

in the absence of the COVID-19 pandemic in the second quarter of 2020. These gains mainly benefitted from the increased demand for alcohol-based sanitizers, which use ethanol as a major input. There was a minimal impact on exports for 'sugar' and 'other food products' during the second quarter of 2020.

Figure 20: Selected Export Categories Trade for 2020



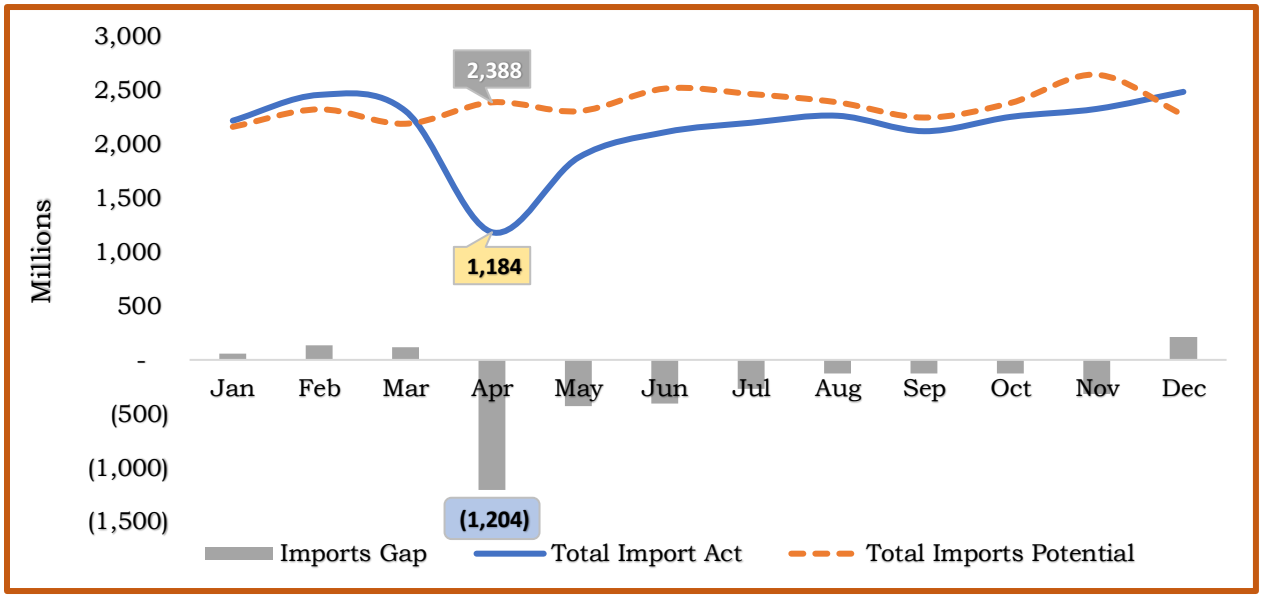
Source: ERS and MFT

4.2.3.2. Impact on Merchandise Imports

On the other hand, imports would have potentially grown by 9.6 percent in the absence of the pandemic in 2020. However, actual data indicates that imports declined by 1.8 percent, which is about 7.8 percentage points lower than what could have been realized in the absence of the pandemic. In levels, this decline in nominal imports is estimated to

have been E2.479 billion lower than what could have been potentially realized, with an estimated loss of E2.039 billion in the second quarter.

Figure 21: Total Imports Trend Compared to Potential Imports for 2020



Source: ERS and MFT

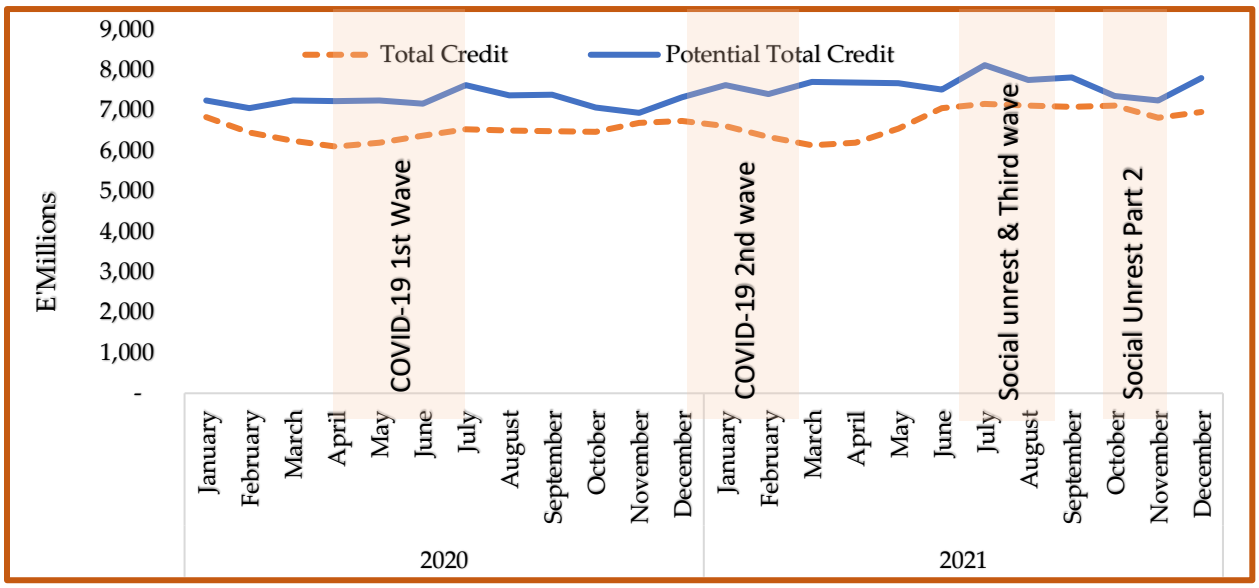
The impact of the pandemic was also analyzed on some of the country's major imports, which include 'fuel & energy', 'food', 'construction' as well as 'other intermediary consumption'. Based on actual data, 'fuel & energy' imports were E478.8 million lower in the second quarter of 2020 relative to what would have been potentially achieved, based on five (5) years corresponding monthly' growth rates. Similarly, 'food', 'other intermediary consumption', as well as 'construction' imports were lower by E267.6 million, E218.1 million and E117.1 million, respectively, in the second quarter of 2020. The estimated import gap associated to each commodity is mainly attributed to the COVID-19 induced lockdowns, which disrupted trade flows in 2020.

4.2.4. Impact on the Monetary Sector

The impact of COVID-19 on credit extension is assessed using the four (4) year average growth rates as a basis for what could have been realized in the absence of the pandemic.

Based on history, credit extension would have grown by 6.4 percent for the year 2020. Actual data depicted a 2.2 percent decline, which is 8.6 percentage points lower than what could have been in the absence of the COVID-19 shock. Assessing the impact in the different quarters, the shock on credit extension reflected an 8.8 percent decline in the second quarter of 2020 compared to a four-year average potential growth rate of 5.7 percent, which has been observed in the pre-COVID-19 era (i.e., 2016-2019).

Figure 22: Total Credit Actuals Compared to Potential



Source: CBE and MFT

Similarly, during the second wave of COVID-19, credit extension growth averaged (-2.3) percent in the first quarter of 2021 compared to 5.5 percent potentially achievable in the pre-COVID-19 period. This was mainly due to the disruption of business activity as well as heightened uncertainty, which resulted in a postponement of investment plans and thereby affecting demand for credit. Notably, during the COVID-19, interest rates were at their record low levels (3.75 %), yet demand for credit remained below average.

4.2.5. *Impact on Micro Small and Medium Enterprises (MSMEs)*

Micro Small and Medium Enterprises (MSMEs) are viewed as the engine of an economy. Similarly, the Eswatini economy is largely dominated by MSMEs, which account for approximately 75 percent of businesses in terms of numbers in the economy (Ministry of Commerce, 2020). MSMEs play an intrinsic role in employment creation and sustaining livelihoods, as they provide employment to about 70 percent of the workforce who are non-governmental employees, and accounting for 14 percent of household's income, according to the Eswatini MSME Diagnostic survey of 2018.

The MSME sector has in the recent past experienced perpetual challenges such as lack of access to finance, lack of inputs and market availability, which were further worsened by the advent of COVID-19. In addition, other challenges that emerged for the MSME sector included volatile cash flow, loss of income, stock damages and drastic decline in demand for products. This emanated from the strict containment measures focusing on reduction of operating hours in the form of curfews and curtailing the movement of people as well as forcing businesses to operate below optimal levels, thus leading to massive lay-offs as well as low activity and closure of some businesses. These potentially worsened unemployment, poverty levels as well as domestic tax revenue collections. The wholesale & retail entities were observed to be amongst the hardest hit, particularly those in alcohol retailing.

According to a rapid assessment (SEDCO survey of 2020), conducted by the Ministry of Commerce revealed that 75.1 percent of the sampled MSMEs across the country reported an anticipated reduction of 50 percent and above in their annual turnover for the year 2020. Moreover, the assessment further indicated that 47.3 percent of MSMEs faced challenges with liquidity due to loss of income whilst 19.9 percent eventually terminated employment of their workers.

At the peak of the pandemic, the economy further grappled with the strain emanating from the unprecedented social unrests, marked by the implementation of curfews. This development further weakened the already fragile environment pushing most businesses into bankruptcy. Some MSMEs had to survive through business rescue loans by government to support their operations. Moreover, the advent of the social unrest forced most MSMEs out of business, resulting in development financiers reportedly writing-off loans valued at E817,738, as of December 2021.

In the same token, informal traders were also not spared from the impact of the pandemic as a majority of beneficiaries of the informal trader's fund failed to meet their contractual obligations. This necessitated the development financiers to suspend loan issuances based on financial sector standards. Local and international travel bans resulted in loss of income for informal traders sourcing their products from neighboring countries like South Africa, Mozambique and Lesotho. Moreover, the high cost of the COVID-19 test priced at E850 was steep for the informal traders. However, government stepped in to subsidize the cost, contributing E650 and the balance was paid by the trader.

4.2.6. Socio-Economic Impact

The COVID-19 pandemic is envisaged to have worsened the country's socio-economic challenges such as unemployment, high rates of poverty, high-income inequality, and inadequate social protection systems.

4.2.6.1. COVID-19 Impact on Unemployment

Following the declared recession in 2022, global unemployment trends is estimated to have worsened. By definition, an economic recession occurs when there is a substantial drop-in overall economic activity, diffused throughout the economy for a period longer than two consecutive quarters. While past recessions were driven by an inherently economic or financial shocks, the current recession was as a result of the public health

crisis. The COVID-19 pandemic was observed to have resulted in a drop in consumer demand across all industries and eventually leading to an economic recession, coupled with a significant increase in unemployment[4]. The situation affected not only hourly paid workers, but also salaried professionals. A range of factors contributed to the spatial variation in economic damages. These included a share of jobs in industries that are mainly contact-facing (specifically non-essential services), disruption in consumption patterns, as well as the implementation of social distancing policies (i.e., work-from-home, travel restrictions).

The advent of COVID-19 posed negative effects in the Eswatini economy as the overall unemployment rate increased to 33.3 percent (Labor Force Survey, 2021), an unprecedented level of joblessness since the year 2007. In line with developments observed globally, Eswatini realized a sizable number of displaced workers with some losing part of their income. Even though most people were still employed, some employees had to forgo a portion of their income due to under-utilization, as workers were forced to work in shifts or for lesser hours relative to normal operations in the pre-COVID-19 era. This was mainly observed in sectors such as airlines, retail and accommodation, food services, as well as the textile and garments, which are highly feminized sectors. Most of the affected sectors employ a bigger proportion of the low-income earners. Subsequently, as of December 2021, data sourced from the Ministry of Labor and Social security indicated that a total of 29,979 lay-offs were approved in 261 companies, (Ministry of Labor, 2021).

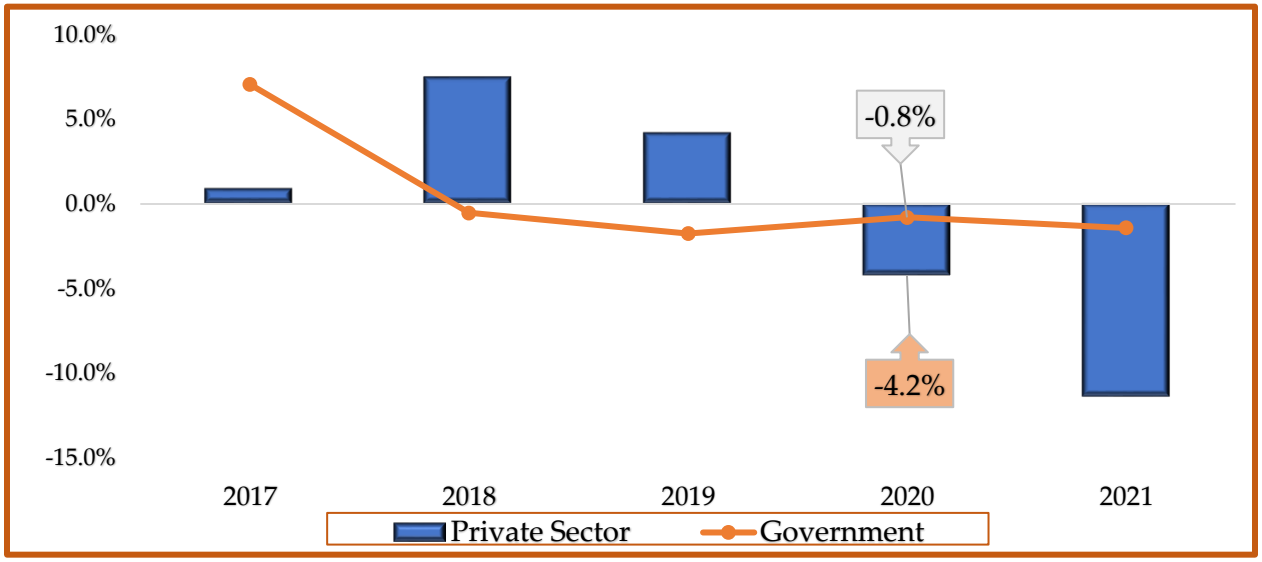
In addition, income tax data depicted that private sector employment contracted further by 11.4 percent in 2021 following a decline of 4.2 percent in 2020 (ERS, 2021). This depicts the lagged impact of the COVID-19 induced recession in 2020, which triggered

[4] Unemployment rate is defined as a percentage of unemployed workers in the total labor force.

retrenchments for the severely hit sectors. Professional services, manufacturing, mining and quarrying and other activities; agriculture related activities as well as real estate activities all contributed significantly to the decline in employment levels in 2021.

Employment levels in the general government services sector decreased by 1.1 percent between 2018 and 2019 (pre-COVID-19). The decline was supported by a hiring freeze policy in a bid to curtail government expenses. In the advent of COVID-19 pandemic, the national health care system faced immense pressure, which led to government employing more health care workers. 679 health workers were hired, constituting 16.7 percent of the total health personnel.

Figure 23: Eswatini Employment Changes by Type of Employer



Source: ERS and MOF

4.2.6.2. COVID-19 Impact on National Poverty

The poverty situation in the country is anticipated to have worsened, driven by the COVID-19 pandemic. According to the Eswatini Household Income and Expenditure Survey (EHIES, 2017), the country's poverty level was estimated at 58.9 percent of the total population, which was relatively lower than the 63.0 percent recorded in 2010. Poverty is measured by establishing the population living below national poverty line set

at $2.15 per day per person (World Bank, October 2022), using indicators such as income distribution and dependency ratio. Despite the recorded decline, poverty has remained severe in the economy, with 20.1 percent of the people living in extreme poverty, and are rural dwellers (SHIES, 2017).

With income broadly dependent on employment and entrepreneurship, COVID-19 has been observed to have pushed more people below the poverty line level through eroded income and loss of employment. The Labor Force Survey (LFS) of September 2021, indicate that unemployment rates have increased from 23.3 percent in 2016 to 33.3 percent in 2021.

The acceleration of unemployment level is in line with the negative economic growth recorded in 2020, following the outbreak of COVID-19. Economic output can be an important variable to track the change in poverty levels, particularly because of the time interval (5 years) in calculating the domestic poverty rate. However, the limitation of using GDP to track poverty would be the source of change in the GDP i.e., the impact GDP could have on poverty is dependent on the source and sector of the growth. Moreover, GDP growth must be consistent over a prolonged period of time to positively impact poverty levels as opposed to erratic movements.

According to Agrawal (2015) the linkage between GDP per capita and poverty is such that a 1 percent increase in real GDP per capita can reduce poverty by 0.78 percent. Using these ratios for Eswatini, it can be approximated that the decline of 3.0 percent in real per capita GDP in 2020 would reverse gains on poverty levels by 2.34 percentage points i.e., poverty levels can be estimated to have regressed from 58.9 percent in 2017 (pre-COVID-19) to 61.2 percent in 2020 (during the COVID-19 pandemic). Notably, in the absence of the COVID-19 shock, assuming that the economy would have grown at its potential, poverty levels would have been potentially reduced by 1.72 percentage points (i.e., poverty would have prospectively fallen marginally from 58.9 percent to 57.1 percent).

CHAPTER 5. POTENTIAL LOSSES DUE TO THE TROPICAL CYCLONE ELOISE

5.1. Tropical Cyclone Eloise Impact

Eswatini's economy was not spared from the devastating impact of the TC Eloise, which affected some parts of the Southern African region. Whilst this was short-lived in the domestic economy, the cyclone resulted in significant disruptions brought by flooding and infrastructure damages. The cyclone was mostly pronounced in the rural areas due to poor road infrastructure (i.e., destruction of bridges and roads) inhibiting access to these areas. Businesses in urban areas were relatively less affected as only a handful of them reported flooding due to poor drainage systems. According to the assessment done by NDMA (2021), total losses emanating from TC Eloise were estimated at E226.3 million. Of the total losses, the NDMA estimated that more than two-thirds (E153.2 million) were accounted for by damages in public infrastructure while the balance related to losses to productive sectors in terms of market access, asset, and inventory losses.

In quantifying the economic impact (impact on output) of the TC Eloise, losses incurred through damages in the productive infrastructure as well as potential production output were assessed. The NDMA (2021) assessment report was used as a base, particularly for asset destruction costings. However, to avoid double counting, the potential loss to production is estimated differently from the NDMA report, so as to account for full production losses including those beyond market access and inventory losses. This allows for more for the estimation of sectors that were indirectly affected by the TC Eloise, notably transport services.

5.1.1. Impact on Productive Sectors

Productive sectors that are deemed to have been directly or indirectly affected by TC Eloise include: 'agriculture & forestry', 'manufacturing', and 'transport services'. The estimated losses (excluding damages to productive infrastructure) in relation to potential output achievable were estimated at E84.1 million, with 'agriculture & forestry' accounting for 60 percent of the overall production output loss. Private infrastructure damages (excluding households) across different sectors, as reported by NDMA was recorded at E38.9 million. Henceforth, the combined losses for private sector amounted to E122.0 million.

Table 6: Total Losses due to TC Eloise

Sector	Infrastructure Damages E' million	Production Output losses E' million
Agriculture & Forestry	15.643	50.460
Crop production	*0.615*	*43.012*
Livestock	*0.028*	-
Forestry	*15.000*	*7.448*
Manufacturing	-	2.460
Electricity & Water	2.162	-
Tourism	20.000	-
Transport	-	3.055
Telecommunication	1.100	28.090
TOTAL	**38.905**	**84.065**

Notes: Infrastructure losses at production level were based on numbers provided in NDMA report of December 2021 on TC Eloise assessment. Production losses based on MFT calculations.

According to the NDMA (2021), the damages on infrastructure in the 'agriculture & forestry' subsector covered irrigation infrastructure, livestock, and forestry equipment. For tourism, there was a destruction to physical assets. In terms of production losses, the days of operations lost as well as value of production output loss and other related losses

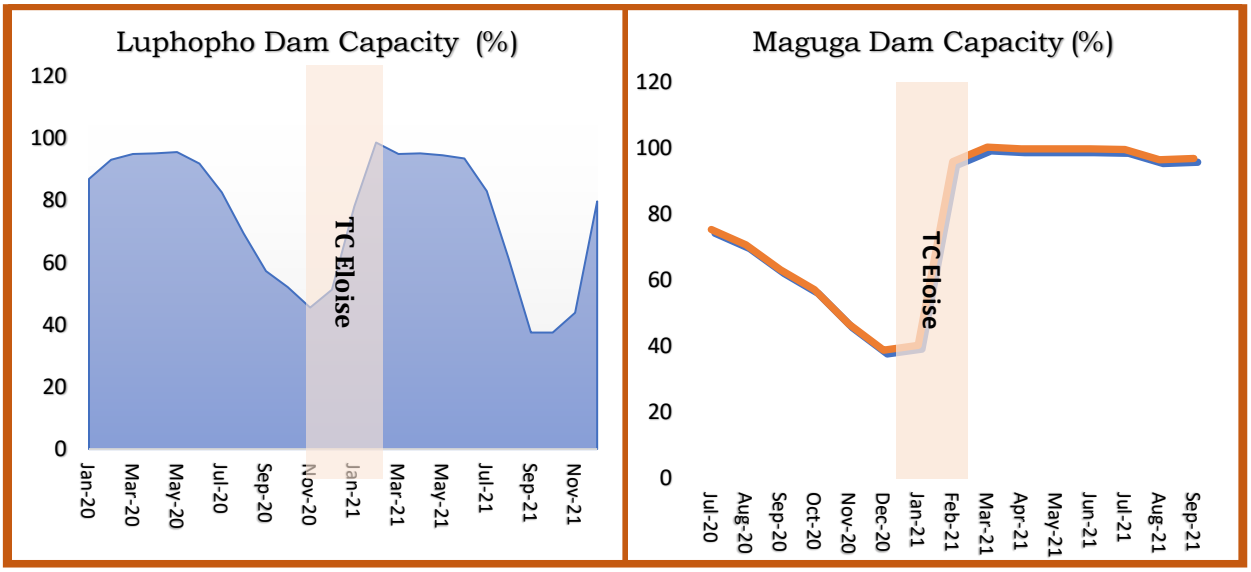
were quantified. Quantifiable losses were mainly observed in the 'agriculture & forestry' as well as 'information & communication' subsectors.

Specifically, on agriculture, approximately 345 hectares of productive land was affected by TC Eloise, of which 45 hectares was on sugarcane and 300 hectares was on other crops, mainly fruits and vegetables. On basis of sucrose price levels, the sugarcane output is valued at E2.8 million. This further culminates into a E2.5 million loss in sugar processing. Using the National Agricultural Marketing Board (NAMBOARD) price data on different fruits and vegetables, the value of output loss on the 300 hectares was estimated at E40.2 million.

The forestry subsector, on the other hand is estimated to have lost E7.4 million in terms of production output losses achievable in the absence of the TC Eloise shock. These reflect losses in production hours. The losses in the 'agriculture & forestry' subsector also triggered potential losses in the transport services. Given the reliance of haulage transport on 'agriculture & forestry', it is estimated that the transport subsector lost approximately E3.1 million in 2021. In addition, losses amounting to E28.1 million reported by the NDMA as production losses in the ICT subsector were assumed, for the purposes of this analysis (in the absence of any other information on this subsector).

The above losses notwithstanding, some subsectors such as (hydro) power generation benefitted positively from the cyclone, mainly through the increased water capacity in dams and reservoirs. All dam levels in the country recorded a significant improvement to reach 100 percent in relation to their respective carrying capacity.

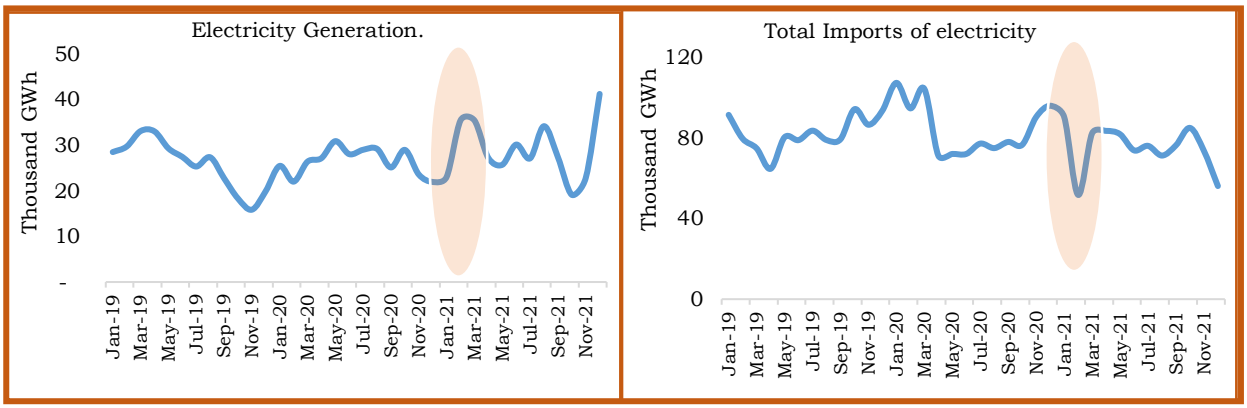
Figure 24: The impact of dam levels by Cyclone Eloise



Source: Ministry of Natural Resources

The increase in dam levels thus boosted hydropower generation. As a result, electricity generation by the Eswatini Electricity Company (EEC) rose by 39.2 percent and 62.0 percent in February and March 2021, respectively. The increase in generation led to a notable decline in electricity imports for corresponding months. Import volumes for February 2021 declined by 48.0 percent and this translated to a potential saving of E60.4 million from the import bill that would have been paid if dam levels were to be at pre-TC Eloise.

Figure 25: Electricity Generation and import trends



Source: Eswatini Electricity Company (EEC)

CHAPTER 6. POTENTIAL LOSSES DUE TO SOCIO-POLITICAL RIOTS

The Kingdom of Eswatini experienced an unprecedented civil unrest in the period of June/July and September/October 2021, following episodes of nationwide protests and boycotts. This events, which were marked rowdy protests, looting, infrastructure and stock burning, resulted in several disruptions resulting in loss to inventory, assets, and property as well loss of life. According to information sourced from NDMA (2021), a total of 636 businesses were reported to have been affected by the civil unrest of June/July 2021. A few more cases were reported in September/October 2021. Severely impacted entities were those operating in the Wholesaling & Retailing space i.e., supermarkets, groceries, liquor traders, auto car dealers, hardware stores as well as manufacturing companies, ICT services, and other services (including informal traders and MSMEs).

To quantify losses incurred due to the disruptions, total hours of disturbed operation/business interruptions and the associated losses were estimated. This captured the losses based on the gap between actual output and what would have been realized in the absence of the riots (businesses operating without interruptions). These calculations are based on the loss of production days triggered by the riots. On this basis, the manufacturing subsector lost about E243.2 million from what it was estimated to potentially achieve in the absence of the riots. Manufacturing activity suffered as a result the loss of operating hours due to the curfew restriction measures put in place in light of the situation.

Output in the agriculture and forestry subsector is estimated to have been E53.5 million lower than what would be potentially achievable if there were no riots. The loss was largely informed by burning of sugarcane fields resulting into reduced yields. The riots also lowered the potential output of the W&R and transport subsectors by E331.3 million

and E18.5 million, respectively. The W&R and transport subsectors' output was moderated by the loss in operating hours due to the curfew policy. Furthermore, the W&R subsector was weighed down by burning, looting and vandalism during the riots resulting to delayed return in business operations. Table 7 details the potential losses on economic output by sector due to riots.

Table 7: Production Losses Due to Political Riots

Sector	2021 E' Millions
Agriculture and forestry	53.5
Manufacturing	243.2
Wholesale and retail trade	331.3
Transportation and storage	18.5
Other	60.28
GDP loss in Current Prices	**706.9**

Source: MFT

CHAPTER 7. COMBINED LOSSES FROM THE CATASTROPHIC EVENT

In summary, it has been quantified that the potential losses (asset and production) emanating from these catastrophic events is estimated at E6.073 billion in the period 2020 – 2021. COVID-19 related losses amounted to E4.244 billion. The TC Eloise and social unrests carried not only losses on potential production, but also asset damages and inventory losses. The combined losses from TC Eloise are estimated at E276.9 million comprising of output losses valued at E84.06 million and infrastructure damage valued at E192.81 million. In addition, losses due to social unrests, in 2021, are estimated at E1.553 billion, of which E706.86 million emanated from output losses and E846.18 million losses due to infrastructure damages.

It is important to note that these losses exclude the other macro-economic impacts such as negative impact on trade and fiscal variables. These in turn impact negatively on other socio-economic indicators such as employment and poverty trends.

Table 8: Overall losses of the recent catastrophic events in Eswatini (E' millions) for 2020 and 2021

Sector	*COVID-19*	*Tropical Cyclone Eloise*	*Socio-political Unrests*	*Total*
	2020	*2021*		
Losses to Output	***-4,377.61***	***-84.06***	***-706.86***	***(5,168.53)***
Agriculture	(191.32)	-50.46	-53.53	**(295.31)**
Mining	25.40	-	-4.01	**21.39**
Manufacturing	-3,486.25	-2.46	-243.23	**(3,731.94)**
Electricity	(170.34)	-	-11.18	**(181.52)**
Water	20.51	-	-0.47	**20.04**
Construction	128.13	-	-5.94	**122.19**
Wholesale & Retail	244.18	-	-331.29	**(87.11)**
Tourism	(399.13)	-	-1.1	**(400.23)**
Transport	(443.47)	-3.05	-18.53	**(465.05)**
ICT	906.65	-28.09	5.13	**883.69**
Financial	(450.01)	-	-21.16	**(471.17)**
Education	(1,844.50)	-		**(1,844.50)**
Health	(22.53)	-		**(22.53)**
Other	1,305.07	-	-21.55	**1,283.52**
f/w which General Govt.	1,063.70	-		**1,063.70**
Damages to property	**-**	**(192.81)**	**(846.18)**	**(1,038.99)**
Public		-153.19	-42.15	**-195.34**
Private		-39.62	-804.03	**-843.65**
Overall losses	**-4,377.61**	**-276.87**	**-1,553.04**	**-6,207.52**

Source: MFT

CHAPTER 8. POLICY RESPONSE MEASURES

Government of Eswatini leaped into action and swiftly responded to the situation as means to cushion the citizens, protecting livelihoods, saving lives and mitigating intense shocks to businesses. Several interventions were implemented including those fiscal based, monetary related as well as socio-economic interventions.

8.1. Fiscal Response to the Pandemic

The onset of the COVID-19 pandemic worsened the already strained domestic fiscal position characterized by various structural issues. The economy continued to face lingering cash flow challenges owing to volatile revenues and increasing expenditures (mainly driven by the uncontrollable growth of the wage bill), the accumulation of arrears and fast-growing debt levels. Prior to the COVID-19 induced shock, the economy was envisaged to grow by 2.8 percent in real terms in 2020, after growing by a revised 2.6 percent in 2019. On the other hand, in the same year (FY 2020/21), revenue collection was appropriated at E21.115 billion which was equivalent to 31.7 percent of GDP; with expenditures budgeted at E24.404 billion, equivalent to 36.7 percent of GDP. Moreover, the fiscal balance was budgeted at E3.289 billion, accounting for 4.9 percent of GDP whilst the debt level was anticipated to be 38.6 percent of GDP.

However, as the economy battled with the COVID-19 pandemic, the economic landscape quickly deteriorated and economic activity was stifled by the containment measures. As a result, real economic growth contracted by 1.9 percent in 2020, necessitating for a revised budget. The situation culminated to a E2.308 billion under performance in revenue mobilization than budgeted in the year. Moreover, there were expenditure reallocations directed to the health and other social sectors, heightened by the COVID-19 pressures. Debt servicing costs escalated in the period, increasing by 5 percent compared

to budget, as fueled by the unfavorable exchange rate in light of the global recession. This development further widening the country's fiscal balance.

Government in response to the fiscal pressures, while contending with limited financing options, was obliged to create adequate fiscal space in order to meet the emerging budget needs. Concessional external financing was thus sourced from some multilateral institutions (IMF, World Bank and AFDB). As such, a budget support valued at E2.596 billion was obtained from these institutions, with about E1.965 billion from the IMF and E640 million from the World Bank.

The government also implemented budget reallocations to cater for the increasing health expenditures. An estimated E850 million capital expenditure was redirected towards health and sanitation infrastructure. Moreover, an additional E1 billion was allocated for the procurement of drugs, health equipment, other health expenses as well as ensuring access to basic food, safe water, and sanitation for vulnerable groups. Additionally, on personnel related intervention, a total of 679 public health workers were hired in the period in response to the pandemic, strengthening the national health system.

There were also interventions that were targeted at supporting and cushioning businesses. To provide reprieve for businesses affected by the pandemic and to support livelihoods, the government through the Eswatini Revenue Service (ERS) was able to set up a relief fund valued at E90 million for companies assisting businesses to remain afloat and thereby being able to retain their employees. The condition however was aligned to entities that have been tax compliant. Moreover, the ERS waived-off all penalties associated with delayed payments, extending the deadline for filing tax returns by three (3) months. Businesses facing cash flow challenges were given a flexibility to plan on repayment schedule, particularly on VAT returns. Furthermore, increases in the electricity tariff were deferred in the FY 2020/21 to relief cost pressures.

In order to address long-term effects of the COVID-19 pandemic, Government launched an ambitious post-COVID-19 Recovery Plan, which focused on economic recovery in the domestic economy through encouraging and supporting private sector-led infrastructure development projects. The overall post-COVID-19 Recovery Plan was valued at E29.623 billion, of which E22.808 billion is from private investments and E6.815 billion from the government. The investment projects were envisaged to yield an estimated 56,167 jobs in a period of 18 months.

Table 9: Impact of Covid-19 of Fiscal Sector

BEFORE COVID 19 (% of GDP)	VS	WITH COVID-19 (% of GDP)
E21.115 billion (31.7 %)	**TOTAL REVENUE AND GRANTS**	E18.806 (28.3 %)
E24.404 billion (36.7%)	**TOTAL EXPENDITURES**	E22.605 (34.6%)
E3.289 billion (- 4.9 %)	**BUDGET DEFICIT**	E3.798 (-5.7 %)
E25.687 billion (38.6 %)	**DEBT LEVELS**	E26.112 (39.3 %)
10.22 %	**INTEREST SERVICING**	15.23%

Source: MFT

8.1.1. Fiscal responses directed to MSME's

To respond to the impact of the catastrophic events, the government set-up some response mechanisms to aid the affected entities and individuals. These responses were tailored to support businesses in order to protect livelihoods.

Amongst the initiatives set-up to support MSME's was the Micro, Small and Medium Enterprise Revolving fund (MRF) which is valued at E45 million and is managed by the Eswatini Bank on behalf of government. Another intervention by government was the

Informal Traders COVID-19 tests subsidy scheme, which has spent about E4.5 million in assisting cross-border informal traders by subsidizing by 75 percent (E600) the cost of the COVID-19 PCR tests. The subsidy was targeted at assisting 200 informal traders weekly per region.

Following the chaotic riots in June/July 2021, which resulted in major disruptions for the domestic economy, His Majesty King Mswati III officially launched a Reconstruction Fund amounting approximately E1 billion in response to the situation. The fund received E500 million from government, about E330 million from Taiwan Embassy, and the rest from other local businesses. This fund was aimed at supporting the economy by means of resuscitating the affected businesses through rehabilitation of damaged infrastructure as well as covering costs for losses in inventory. As of February 2022, a sizable amount of the Reconstruction Fund has been guaranteed to support businesses that have submitted claims and reconstruction is underway for most entities.

8.1.2. Monetary Policy Responses

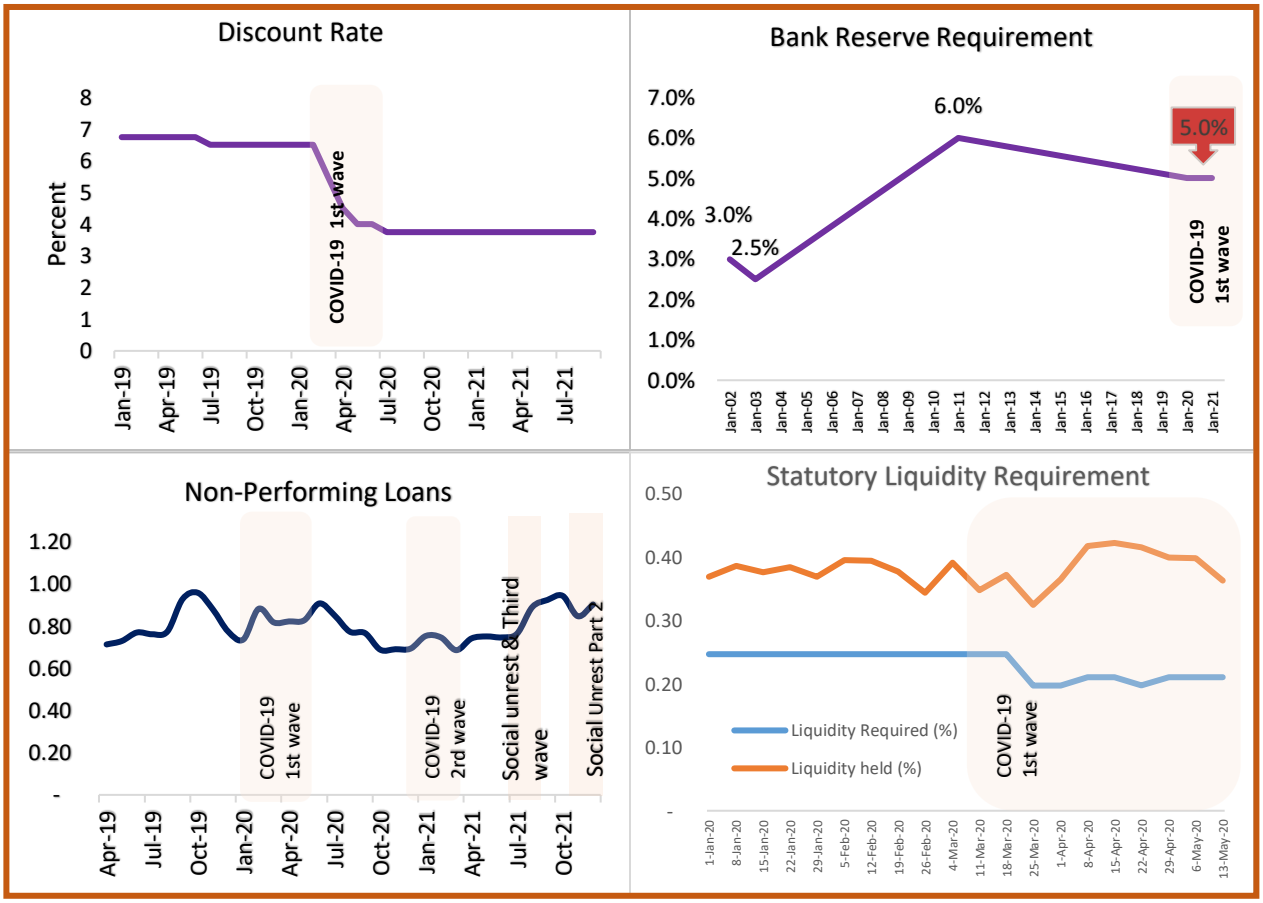
In the wake of the COVID-19 pandemic, the Central Bank of Eswatini (CBE) implemented a wide range of measures to support the economy as it slipped into its worse recession. In its limited discretion, and in line with the South African counterparts, the CBE reduced its discount rate by a cumulative 275 basis points from 6.5 percent in March 2020 (at the advent of COVID-19) to 3.75 percent in July 2020 and was kept at these historically low levels until the end of 2021. This translated into a proportional decrease in the prime lending rate, which was curtailed from 10 percent to 7.25 percent in the same period. This was done to ensure access to credit for industries (affected by the COVID-19 pandemic) at a cheaper cost relative to pre-pandemic levels.

In addition, the monetary policy authority adjusted liquidity and reserve requirements ratios for banks to increase loanable funds available for credit extension (to the real

economy). The liquidity requirement ratio was reduced from 25 percent to 20 percent for commercial banks; and from 22 percent to 18 percent for development banks. On the same vein, the reserve requirement ratio was moved from 6 percent to 5 percent. As noted by Nxumalo (2020), the easing of liquidity ratios was done in an environment that already had an excess liquidity of nearly E2 billion on average and the further reduction in liquidity ratios increased loanable funds by approximately E770 million.

Some measures included preserving banks' capital and encouraging flexibility in loss accounting, which strengthened banks' lending capacity. Others, such as state-backed loan guarantees or funding for lending programmes, incentivized banks to use their available capacity.

Figure 26: Monetary policy responses



Source: CBE, MFT

On other relief measures by the banking sector, the regulator extended the repayment or tenure from overnight to 9 months. This was coupled with a commitment by the banking sector on restructuring of loan repayments and where possible issuance of repayment holidays for businesses and individuals that were directly or indirectly affected by the pandemic.

According to the Company Survey Report (2021), during the second quarter of 2020; when harder lockdowns were in place, the banking sector provided relief measures in terms of loan rescheduling and debt restructuring amounting to at least E771 million to different sectors of the economy. The most affected sectors included 'tourism related activities', 'public transport', 'education', 'construction' and 'manufacturing'. Even when the lockdown restrictions were eased in the third and fourth quarter of 2020, application for debt relief (though smaller in magnitudes) continued for subsectors such as 'tourism related activities', 'transport' and 'education'.

8.1.3. Social Responses

In addition to the fiscal and monetary responses, the government put in place social interventions to assist vulnerable individuals and households so as to protect livelihoods. Interventions directed towards supporting households were in the form of social grants, specifically food and cash transfers. According to NDMA data, in 2020, the highest number of beneficiaries was 87,803 individuals in 12,567 households, with a total amount of E29.7 million disbursed in cash transfers. It can be inferred that the average dependency was at 7 persons per household on the benefit (estimated at E700 per household) in May 2020. Similarly, in 2021, the highest number of benefitting households was 71,634, comprising of 406,981 beneficiaries who received a cumulative amount of

E89.9 million in cash transfers. Additionally, regarding food assistance, 4,139.6 metric tons (MT) of maize and pulses[5] were distributed to the households.

In an effort to mitigate against higher job and income losses, the government responded by issuing a General Notice Order No. 22 of 2020. The notice had policies such as; legitimizing various temporary employment contingency measures (i.e., working in shifts), diversion of mandatory social contributions (provident fund) for two months (April and May 2020) as well as non-retrenchments within the declared National Emergency period amongst others.

Table 10: Government social relief grants

Government Social Relief amid Catastrophic events			
	Cash Based Transfers		
Cash-based Transfers	Number of Households	Number of Beneficiaries	Total Cash Transfers (E)
2020	12,657	87,803	29,711,500.00
2021	71,634	406,981	89,938,496.89
	Food Assistance		
Cereal (MT)	Maize	Pulses	Total
2021	4,002.1	137.5	4,139.6

Source: NDMA, MFT

[5] Pulses are dry legume crops (e.g., beans, peas lentils etc.)

Information Box 5: Other Social Responses on Catastrophic Events

Other response measures towards mitigating the effects of the COVID-19 pandemic in the different sectors.

The Education sector…

COVID-19 pandemic

- Total spending of E27.8 million for the construction of hand washing facilities in schools
- Purchased necessary equipment to enable online learning for students in most school, amounting to E77.205 million.
- Developed an e-learning platform, through the Royal Science and Technology Park (RSTP), to enhance the teacher-pupil interaction, at a cost of E2.7 million.
- Aired lessons on radio and Television for pupils to continue learning during the COVID-19 period.
- Through assistance from external partners (i.e., UNICEF), the ministry procured radios for children who did not have access to Television and Radio.

The Health sector…

COVID-19 pandemic

- The World Bank grant in health emergency funding for a project that would help strengthen the country's health system to respond to COVID-19 and future emergences: USD 6 million.
- Expenditure on drugs used in the fight against COVID-19: In FY 2021/22, the total allocation for drugs was E8 which E200 million was for COVID-19 vaccines.

CHAPTER 9. CONCLUSION

In 2020 and 2021 the country experienced the COVID-19 outbreak; TC Eloise; and socio-political riots which weighed negatively on macroeconomic outcomes. The aim of this paper was to quantify the impact of these catastrophic events on the economy and document the policy responses herewith. The results from the assessment depict that the economy potentially lost E6.207 billion in terms of value of assets and output from the aforementioned events (combined). COVID-19 pandemic accounted for the highest loss at E4.378 billion (70.5 percent). On the other hand, socio-political unrests related losses were valued at E1.553 billion (25.0 percent), while TC Eloise was estimated at E276.9 million (4.5 percent).

At the advent of all the catastrophic events, the government swiftly implemented targeted policy responses to mitigate the negative impact. The policies included Post-COVID-19 Recovery Plan, setting up Revolving Funds (in response to COVID-19); Reconstruction Fund (for socio-political unrests); and humanitarian support (TC Eloise). Notably, these response measures somewhat moderated the negative impact of these shocks. It is important to note that some of the shocks, typically COVID-19, presented newer opportunities for the economy to explore and maximize gains realized.

The one of the lessons learnt from these recent developments is that it remains critical for the domestic economy to ensure that domestic (financial) buffers are always at optimal levels to cover for any shocks that the economy may experience in the future. Amongst these essential buffers is the maintenance of sustainable fiscal reserves in the economy including development of a stabilization fund that could be used in the financing of any domestic fiscal pressures as well as cushioning the economy from any potential shocks. Another key lesson taken from the experienced situation in economy is that there is an increasing need for the country to aggressively implement all programmes that will

ensure building resilience in the economy remains key for the economy to cushion effects of possible future shocks. It has been observed that due to the country's openness to trade, certain sectors in economy, such as the export-oriented manufacturing sector, will remain highly vulnerable to most external shocks, whilst from an agriculture perspective, the continued dependance on rain-fed cultivation highly exposes the sector and economy to climate change induced shocks. It is thus recommended that the country continues prioritising and accelerate implementation of programmes aimed at increasing the economy's economic base, ensuring that there is economic diversification, increasing domestic value chains as well as enhancing infrastructure development for long-term growth. The overall anchor for these programmes is the availability of a conducive business environment. Moreover, amid the unpredictable climate change, to lessen the effects of natural disasters, this emphasizes the country's need to invest in early-warning mechanisms.

Though most economic policies and strategies currently in place as stipulated in the country's economic planning and policy documents as well as noting the recent aggressive policy response, and its impact on mitigating losses (during the catastrophic events), it can be recommended that the momentum needs to be sustained to ensure that the policy measures are fully implemented in the economy.

The report attempted to estimate short-term impacts of the different catastrophic events and thus fall short in quantifying the associated long-term effects of the events on economic output. The purpose of this analysis was solely to estimate loss to economic output during the period of the events' occurrence. In future, there is need to quantify the anticipated socio-economic losses which could emanate from the catastrophes.

END

References

Agrawal, P. (2015). Reducing Poverty in India: The role of economic growth. Institute of Economic Growth Working Paper, Nº 349. Retrieved from http://iegindia.in/upload/workpap/1548841949_349.pdf

Balan, I. & Vlad,S. (2018). Kalman filters for estimating the potential GDP. *Journal of Applied Computer Science and Mathematics*, *vol.12(1).* pp.39-43. Doi: https://doi.org/10.4316/JACSM.201801006.

Central Bank of Eswatini (2021). *Credit Extension*.

Central Statistical Office (2016). *Eswatini Household Income & Expenditure Survey. Key Findings Report, May 2018.*

Central Statistical Office (2021). *GDP by Economic Activity at Constant 2011 Prices (E' Million), 2020 GDP Report.*

Central Statistical Office (2021). *Real growth rate percentage (year-on-year). Gross Domestic Product. Third Quarter 2021 report.*

Company Survey Team (2021). *Company Survey Report, 2021*.

Cotis,J.P, Elmeskov, J.& Mourougane, A.(2003).Estimates of potential output: Benefits and pitfalls from a policy perspective. Organization for Economic Cooperation and Development Economics Department. p.10. Retrieved from https://www.oecd.org/economy/growth/23527966.pdf

Dlamini, M.S. (2020). *Impact of COVID-19 on MSME's in the Kingdom of Eswatini* [Power point slides]. MSME Unit, Ministry of Commerce Industry and Trade.

Eswatini Revenue Service (2021). Trade data.

Grguric, L., Jelic', O.N.& Pavic',N.(2021).The Interplay of Supply and Demand shocks: Measuring potential output in the COVID-19 pandemic.pp.460-493. Retrieved from https://doi.org/10.3326/pse.45.4.4

Hamilton, J.D. (2017).*Why you should never use the Hodrick-Prescott filter*. National Bureau of Economic Research Working Paper No.23429. Retrieved from https://www.nber.org/papers/w23429

Ministry of Health (2021). *Eswatini Covid-19 daily cases*. The epidemiology &Disease control Unit.

Ministry of Natural Resources (2021). *Sales volumes starting 2013*. The Energy Department.

National Disaster Management Agency (2021). *Civil Disturbance Rapid Damage Assessment Report.* National Disaster Management Agency.

National Disaster Management Agency (2021). *Cyclone Eloise Rapid Needs Assessment Report, Kingdom of Eswatini.* National Disaster Management Agency.

National Disaster Management Agency (2021). *Social Assistance*.

National Employment Statistics Unit (2021). *Integrated Labour Force Survey, 2021*. Ministry of Labour and Social Security.

Nxumalo, W. (2020). *Monetary policy and financial sector response to COVID-19 pandemic: What have we learnt, what more could be done?* (Policy Brief). Central Bank of Eswatini, Mbabane.

Small Enterprise Development Corporation (2020). *Impact of covid-19 on SME's in Eswatini Survey Report. Small Enterprise Development Corporation.*

Quast,J. & Wolters, M.H.(2020).Reliable real time output gap estimates based on a modified Hamilton filter. Econstor Working paper No.2158. Retrieved from https://www.econstor.eu/bitstream/10419.pdf.

The Coronavirus (COVID-19) Regulations (2020). Eswatini Government gazette extraordinary, No.61:22. Retrieved from http://www.ezulwini.co.sz/wp-content/uploads/2020/07/Guidelines-on-employment-contingency-measures.pdf.

UNDP (2021). *Analyzing long term socio-economic impacts of COVID-19 Across diverse African contexts.* UNDP Regional Bureau for Africa. *R*etrieved from https://www.africa.undp.org/content/rba/en/home/library/reports/analysing-long-term-socio-economic-impacts-of-covid-19-across-di0.html.

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